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2009

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University of Arkansas, Fayetteville

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Welcome to the University of Arkansas

This catalog of studies is a comprehensive reference for your years of study – a list of degrees and courses offered at the University of Arkansas. In addition, it gives you valuable information such as suggested and required degree plans and information about costs, scholarships and financial assistance, and campus resources. Read it with pleasure and with care.

Take every opportunity to consult your academic adviser to ensure that you are taking advantage of courses and University resources that will help you reach your educational and career goals and graduate on time. If you are not sure where to find your academic adviser, contact the dean’s office of your college; the phone numbers are listed on the preceding page. If your major is “undecided,” contact the advising office in the J. William Fulbright College of Arts and Sciences at 479-575-3307. Otherwise, call the dean’s office in the college or school of your interest.

Remember, the University of Arkansas is committed to your success. The faculty and staff are here to support you as you work to achieve your goals. Ask for help and advice whenever you need it.

The University of Arkansas is committed to the policy of providing educational opportunities to all qualified students regardless of their economic or social status and will not discriminate on the basis of race, color, sex, creed, sexual orientation, disability, veteran’s status, age, marital or parental status, or national origin.
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# 2008 Academic Calendar

## Summer Session I 2008 - First Six Weeks (29 Class Days)
- **Mar 31-May 20**: Open Registration
- **May 19**: Classes begin
- **May 20**: Last day to register, add a course, or change from audit to credit
- **May 22**: Last day to drop without a mark of “W” or change from credit to audit
- **May 26**: Memorial Day Holiday
- **June 16**: Last day to drop a Session I class
- **June 27**: Last day to officially withdraw from Session I
- **June 27**: Last day of classes for Session I

## Summer Session II 2008 - Second Six Weeks (29 Class Days)
- **Mar 31-July 1**: Open Registration
- **June 30**: Classes begin
- **July 1**: Last day to register, add a course, or change from audit to credit
- **July 3**: Last day to drop without a mark of “W” or change from credit to audit
- **July 4**: Independence Day Holiday
- **July 28**: Last day to drop a Session II class
- **August 8**: Last day to officially withdraw from Session II
- **August 8**: Last day of classes for Session II

## Summer Session III 2008 - Twelve Weeks (58 Class Days)
- **Mar 31-May 22**: Open Registration
- **May 19**: Classes begin
- **May 22**: Last day to register, add a course, or change from audit to credit
- **May 26**: Memorial Day Holiday
- **May 29**: Last day to drop without a mark of “W” or change from credit to audit
- **July 4**: Independence Day Holiday
- **July 15**: Last day to drop a Session III class
- **August 8**: Last day to officially withdraw from Session III
- **August 8**: Last day of classes for Session III

## Summer Session IV 2008 - Ten Weeks (49 Class Days)
- **Mar 31-June 4**: Open Registration
- **June 2**: Classes begin
- **June 4**: Last day to register, add a course, or change from audit to credit
- **June 10**: Last day to drop without a mark of “W” or change from credit to audit
- **July 4**: Independence Day Holiday
- **July 17**: Last day to drop a Session IV class
- **August 8**: Last day to officially withdraw from Session IV
- **August 8**: Last day of classes for Session IV

## Summer Session V 2008 - First Five Weeks (24 Class Days)
- **Mar 31-June 3**: Open Registration
- **June 2**: Classes begin
- **June 3**: Last day to register, add a course, or change from audit to credit
- **June 4**: Last day to drop without a mark of “W” or change from credit to audit
- **June 24**: Last day to drop a Session V class
- **July 3**: Last day to officially withdraw from Session V
- **July 3**: Last day of classes for Session V
- **July 4**: Independence Day Holiday

## Summer Session VI 2008 - Second Five Weeks (25 Class Days)
- **Mar 31-July 8**: Open Registration
- **July 7**: Classes begin
- **July 8**: Last day to register, add a course, or change from audit to credit
- **July 9**: Last day to drop without a mark of “W” or change from credit to audit
- **July 29**: Last day to drop a Session VI class
- **August 8**: Last day to officially withdraw from Session VI
- **August 8**: Last day of classes for Session VI

## Fall 2008 (74 Class Days; 44 MWF, 30 TT)
- **Mar 31-Aug 29**: Open Registration for currently enrolled students
- **August 21-29**: Open Registration for all students
- **August 25**: Classes begin
- **August 29**: Last day to register, add a course, or change from audit to credit
- **September 5**: Last day to drop without a mark of “W” or change from credit to audit
- **September 1**: Labor Day Holiday
- **October 31**: Last day to drop a fall semester class
- **Nov 3 - Nov 12**: Priority Registration for Spring 2009
- **November 26**: Fall Break (administrative offices will be open.)
- **November 27-28**: Thanksgiving Holiday
- **December 9**: Last day to officially withdraw from all classes
- **December 9**: Last day of classes for fall semester
- **December 10**: Dead Day
- **December 11-17**: Final exams
<table>
<thead>
<tr>
<th>Spring 2009 (73 Class Days; 43 MWF, 30 TT)</th>
<th>Fall 2009 (74 Class Days; 44 MWF, 30 TT)</th>
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<tr>
<td>Nov 3 - Jan 16</td>
<td>August 24</td>
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<tr>
<td>Open Registration for currently enrolled students</td>
<td>Classes begin</td>
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<td>January 8 -16</td>
<td>September 7</td>
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<tr>
<td>Open Registration</td>
<td>Labor Day Holiday</td>
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<td>January 12</td>
<td>November 25</td>
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<td>Last day to register, add a course, or change from audit to credit</td>
<td>Fall Break (administrative offices will be open)</td>
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<td>January 19</td>
<td>November 26-27</td>
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<td>Martin Luther King Day</td>
<td>Thanksgiving Holiday</td>
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<td>January 26</td>
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<td>Last day to drop without a mark of “W” or change from credit to audit</td>
<td>Last Day of Classes</td>
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<td>March 16-20</td>
<td>December 9</td>
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<td>March 27</td>
<td>January 16</td>
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<td>Last day to drop a spring semester class</td>
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<td>April 30</td>
<td>January 19</td>
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<td>Last day to officially withdraw from all classes</td>
<td>Martin Luther King Day</td>
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<td>April 30</td>
<td>January 26</td>
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<td>Last day of classes for spring semester</td>
<td>Last day to drop without a mark of “W” or change from credit to audit</td>
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<td>May 1</td>
<td>January 29</td>
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<td>Dead Day</td>
<td>Martin Luther King Day</td>
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<td>May 2-8</td>
<td>January 31</td>
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<td>Final exams</td>
<td>Last Day of Classes</td>
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<td>May 9</td>
<td>February 1</td>
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<tr>
<td>All University Commencement</td>
<td>Summer Session I 2009 -First Six Weeks (29 Class Days)</td>
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<td>May 16</td>
<td>May 18</td>
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<td>Law School Commencement</td>
<td>Classes begin</td>
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<td>Memorial Day Holiday</td>
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University of Arkansas, Fayetteville
Administrative Officers

SYSTEM ADMINISTRATION
President, University of Arkansas  B. Alan Sugg, B.S.B.A., M.Ed., Ph.D.

CHANCELLOR AND VICE CHANCELLORS
Chancellor, University of Arkansas, Fayetteville  John A. White, B.S.I.E., M.S.I.E., Ph.D.
Chancellor-elect  G. David Gearhart, B.A., J.D., Ed.D.
Provost and Vice Chancellor for Academic Affairs  Robert V. Smith, B.S., M.S., Ph.D.
Vice Chancellor for Finance and Administration  Donald O. Pederson, B.S., Ph.D.
Vice Chancellor for Government and Community Relations  Richard Hudson, B.A., M.A.
Vice Chancellor for Student Affairs  Johnetta Cross Brazzell, B.A., M.A., Ph.D.
Vice Chancellor for University Advancement  G. David Gearhart, B.A., J.D., Ed.D.

DEANS
Honors College  Bob McMath, B.A., M.A., Ph.D.
Dale Bumpers College of Agricultural, Food and Life Sciences  Gregory J. Weidemann, B.S., Ph.D.
School of Architecture  Graham F. Shannon, B.A., B.Arch., M.Arch.
J. William Fulbright College of Arts and Sciences  Donald R. Bobbitt, B.S., Ph.D.
Sam M. Walton College of Business  Dan L. Worrell, B.S., M.S., Ph.D.
School of Continuing Education and Academic Outreach  Linda Beene Ballard, B.S.E., M.A., Ed.D.
College of Education and Health Professions  M. Reed Greenwood, B.S.E., M.Ed., Ed.D.
College of Engineering  Ashok Saxena, B.Tech., M.S., Ph.D.
School of Law  Cynthia Nance, B.S., J.D., M.A.
Graduate School  Collis R. Geren, B.S., M.S., Ph.D.
University Libraries  Carolyn Henderson Allen, B.S., M.S.
Message from the Chancellor

As you move into and through your college career, we invite you to join the University of Arkansas community in making the University of Arkansas a nationally competitive, student-centered research university serving Arkansas and the world. With help from our innovative and devoted faculty and bright, hard-working students like you, the University of Arkansas has moved to the center of higher education in the country. As our reputation grows and improves, we are striving to make progress toward five institutional goals:

- Strengthening academic quality and reputation by enhancing and developing programs of excellence in teaching, research, and outreach;
- Increasing the size and quality of our student body;
- Enhancing diversity among our faculty, students, and staff;
- Increasing public financial support, particularly that provided by the state and federal government;
- Increasing private gift support from alumni, friends, corporations, foundations, and other organizations.

The University of Arkansas is building on a proud, 137-year history, one that has produced more than 128,000 graduates. And while the University already is well-known for its teaching, research, and outreach, the future promises to bring even greater renown to the University of Arkansas. In 2002, the Walton Family Charitable Support Foundation gave the largest gift ever to an American public research university—$300 million to the University of Arkansas. From that gift, $100 million endowed the University of Arkansas graduate school. The remaining $200 million established and endowed the University of Arkansas Honors College.

The effects are already in evidence. The graduate school is attracting talented graduate scholars in record numbers. The Honors College also is prospering, with more than 2,100 students currently enrolled and taking advantage of a rigorous academic program at the University, which will prepare them for a future of leadership, service, and success in their communities and professions. They and many other students are taking advantage of study abroad opportunities, pursuing research projects, or benefiting from the many scholarships and fellowships available to undergraduates at the University of Arkansas. Whether in the Honors College or in any of the fine departments and programs interspersed throughout the University, all students are encouraged to strive for their highest level of achievement.

We invite you to use this catalog of the University of Arkansas and become better acquainted with who we are and where we're going. On behalf of the University community, we wish you all the best, and we hope this catalog encourages you to take advantage of the lifetime of opportunities awaiting you at the University of Arkansas.

Sincerely,

John A. White
Chancellor

G. David Gearhart
Chancellor-Elect
University Profile

Vision
The University of Arkansas is a nationally competitive, student-centered research university serving Arkansas and the world.

History
Founded as a land-grant college and state university in 1871, the University of Arkansas opened its doors to students on January 22, 1872. Under the Morrill Land-Grant College Act of 1862, federal land sales provided funds for the new university, which was charged with teaching “agricultural and the mechanic arts,” “scientific and classical studies,” and “military tactics” to Arkansas scholars.

Statewide elections, held to establish bonds to help finance the University, eventually determined the school’s location. Washington County and the City of Fayetteville submitted the highest bid, a total of $130,000, to which was added a $50,000 state appropriation for the benefit of the institution and $135,000 from the sale of federal lands. With $12,000 of this money, the University purchased a 160-acre farm, the homestead of William McIlroy, and established its campus on a hilltop overlooking the Ozark Mountains.

There were few facilities and little money that first academic year, but the eight students and three faculty members who gathered for classes in 1872 showed the same dedication to learning and commitment to excellence that has carried the University of Arkansas into the 21st century. Over the past 137 years, the University has developed into a mature institution with nine schools and colleges, more than 800 faculty members, and 18,648 students. It serves as the major provider of graduate-level instruction in Arkansas. The research and scholarly endeavors of its faculty make it an economic and cultural engine for the state. And its public service activities reach every county in Arkansas, throughout the nation, and around the world.

Mission
As a land-grant university, the University of Arkansas strives to fulfill a three-fold mission of teaching, research, and service. In addition, as the flagship campus of the University of Arkansas System, the University of Arkansas in Fayetteville serves as the state’s major center of liberal and professional education and as Arkansas’ main source of theoretical and applied research.

Students pursue a broad spectrum of academic programs leading to baccalaureate, master’s, doctoral, and professional degrees, not only in traditional disciplines within arts, humanities, social sciences, and natural sciences, but also in the core professional areas of agricultural, food and life sciences; architecture; business; education; engineering; nursing; human environmental sciences; and law.

The University of Arkansas houses more than 200 academic programs and offers 87 bachelor’s degrees in 74 fields of study. Students may also pursue a wide range of graduate degrees, including the Master’s, the Educational Specialist, the Doctor of Education, and the Doctor of Philosophy. Information about graduate programs can be found in the Graduate School Catalog or on the World Wide Web at http://www.uark.edu/depts/gradinfo/.

The Carnegie Foundation categorizes the University of Arkansas as a research institution with “high research activity,” placing the University among the top 10 percent of universities nationwide and in a class by itself within the state of Arkansas. In its 2007 edition, U.S. News and World Report ranked the University among the top tier of institutions of higher education. Faculty members perform cutting-edge research for which they annually win prestigious grants and awards, and the University encourages undergraduates to participate in the research process. Such opportunities enhance the learning process by providing hands-on experience in lab and research techniques, by developing students’ abilities to implement, experiment, discover and teach, and by fostering a mentoring relationship early in students’ academic careers.

Research programs involving both faculty and students serve as vital sources of information on the economic and social needs of Arkansas. In many fields, research performed at the University of Arkansas reaches beyond the state to provide insight and guidance on issues of national and international concern. The University provides extensive technical and professional services to varied groups and individuals throughout the state, helping to further Arkansas’ economic growth. The University operates nationally respected high school and college-level correspondence programs; it assists other institutions in developing educational programs; it offers graduate programs, both cooperatively and singly, throughout the state; and it makes specialized campus resources such as computing services and library holdings available to other institutions in the state.

Location
Fayetteville, a thriving city of 65,000 in the northwest corner of the state, is home to the University of Arkansas campus, which comprises 345 acres and 133 buildings. Lying on the western edge of the Ozark Mountains, the city boasts a lively cultural scene and easy access to outdoor recreation. In 2003, Outside magazine named Fayetteville 23rd out of the top 40 college towns in America. Fayetteville was heralded as one of Business Week’s 2002 “Dazzling Dozen” small cities in the U.S. Northwest Arkansas is the sixth-fastest-growing region in the nation, according to the U.S. Census, and was recently included among the top four “Best Places for Work” by CNN/Money. Fayetteville’s temperate climate ensures beautiful seasons year-round. The city is central to larger metropolitan areas, including Dallas, Kansas City, Little Rock, Memphis, St. Louis, and Tulsa, and has direct flights from Los Angeles, New York City, Chicago, Washington, and Atlanta, among other cities.
Undergraduate Fields of Study

The academic units of the University of Arkansas, Fayetteville, include nine colleges and schools and two military departments: the Dale Bumpers College of Agricultural, Food and Life Sciences, which includes the School of Human Environmental Sciences; the School of Architecture; the J. William Fulbright College of Arts and Sciences, which includes the School of Social Work; the Sam M. Walton College of Business; the College of Education and Health Professions, which includes the Eleanor Mann School of Nursing; the College of Engineering; the School of Law; the Graduate School; the Honors College; and the Departments of Army and Air Force ROTC. In addition, the Division of Continuing Education offers non-credit course work, correspondence courses for credit, and off-campus credit courses in cooperation with colleges and schools at Fayetteville. The School of Law and the Graduate School offer professional and graduate degrees.

FIELDS OF STUDY BY COLLEGE AND SCHOOL

Following is a list of major fields of undergraduate study offered at the University of Arkansas, followed by a list of minors.

Dale Bumpers College of Agricultural, Food and Life Sciences
- Agricultural Economics and Agribusiness
- Agricultural Education, Communication and Technology
- Animal Science
- Biological Engineering (joint program with the College of Engineering)
- Crop Management
- Environmental, Soil, and Water Science
- Food Science
- Horticulture, Landscape and Turf Sciences
- Poultry Science

School of Human Environmental Sciences
- Apparel Studies
- Foods, Human Nutrition, and Hospitality
- General Human Environmental Sciences
- Human Development, Family Sciences, and Rural Sociology
- Interior Design

School of Architecture
- Architecture
- Architectural Studies
- Landscape Architecture
- Landscape Architectural Studies

J. William Fulbright College of Arts and Sciences
- American Studies
- Anthropology
- Art
- Biology
- Chemistry
- Classical Studies
- Communication
- Computer Science (B.A.)
- Criminal Justice
- Drama
- Earth Science
- Economics (B.A.)
- English
- French
- Geography
- Geology
- German
- History
- International Relations
- Journalism
- Mathematics
- Medical Sciences
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Public Administration (B.S.)

School of Social Work
- Sociology
- Spanish

Second (or dependent) Majors*
- African American Studies
- European Studies
- Latin American Studies
- Middle East Studies
- Russian Studies

* A second (or dependent) major must be earned in a degree program in which the first major is one authorized to be given independently.

Sam M. Walton College of Business
- Accounting
- Business Economics
Undergraduate Fields of Study

College of Business
Finance
General Business
Information Systems
International Business
Management
Marketing
Transportation and Logistics

College of Education and Health Professions
Career and Technical Education
Childhood Education
Communication Disorders
Elementary Education
Health Science
Human Resource Development
Kinesiology
Recreation
Eleanor Mann School of Nursing

College of Engineering
Biological Engineering
Chemical Engineering
Civil Engineering
Computer Engineering
Computer Science (B.S.)
Electrical Engineering
Industrial Engineering
Mechanical Engineering

Undeclared Major
Certain degree-seeking students who are temporarily undecided about their choice of a major field of study may select the undeclared major. However, all undergraduate students still must enroll in one of the colleges or schools. Each of these academic units makes provisions for undeclared majors and each has its own rules for the point at which a student must declare a major.

Minors
Each college and school of the University of Arkansas can determine whether to offer minors within their respective departments and whether to allow a student to pursue a minor in another college or school. Most, but not all, minors are offered in fields in which a major is also offered. Students should check with academic advisers in their college or school to determine the eligibility and requirements of a minor. They are listed below.

Dale Bumpers College of Agricultural, Food and Life Sciences
Agricultural Business
Agricultural Education
Agricultural Systems Technology Management
Animal Science
Crop Biotechnology
Crop Management
Entomology
Environmental, Soil, and Water Science
Equine Science
Food Science
Human Development and Family Sciences
General Foods and Nutrition
Global Agricultural, Food and Life Sciences

Journalism
Pest Management
Plant Pathology
Poultry Science
Turf Management
Wildlife Habitat

Minors offered by the J. William Fulbright College of Arts and Sciences

Minors offered by the Sam M. Walton College of Business

School of Architecture
Minors offered by any other UA college or school

J. William Fulbright College of Arts and Sciences
African American Studies
Anthropology
Arabic
Art
Art History
Biology
Business
Chemistry
Classical Studies
Communication
Computer Science
Drama
Economics
English
European Studies
French
Gender Studies
Geography
Geology
German
Historic Preservation
History
Japanese
Latin American Studies
Legal Studies
Mathematics
Medieval and Renaissance Studies
Middle East Studies
Music
Philosophy
Physics
Political Science
Psychology
Religious Studies
Social Work
Sociology
Spanish
Statistics

Sam M. Walton College of Business
Accounting
Business Economics
Finance
Financial Economics
Information Systems
Management
Marketing
Transportation and Logistics
Minors offered by the J. William Fulbright College of Arts and Sciences

College of Education and Health Professions
Recreation
Minors offered by any other UA college or school

College of Engineering
Minors offered by any other UA college or school

Graduate School
Microelectronics-Photonics

PRE-PROFESSIONAL PROGRAMS

Pre-Law
The University of Arkansas School of Law does not prescribe a specific pre-law curriculum and does not require any single “pre-law major.” Instead, prospective students are encouraged to select baccalaureate majors best suited to individual interests and abilities. However, writing courses are often very valuable.

A baccalaureate degree is required for admission to the University of Arkansas School of Law, except for those students in the Dale Bumpers College of Agricultural, Food and Life Sciences or the Fulbright College of Arts and Sciences who are admitted to the special six-year program. All applicants for admission are required to take the Law School Admission Test.

Other Pre-Professional Programs
Fulbright College offers pre-professional programs and advisers in law, medicine, dentistry, optometry, medical technology, chiropractic, physical therapy, pharmacy, dental hygiene, occupational therapy, social work, and theology. The Dale Bumpers College of Agricultural, Food and Life Sciences coordinates the pre-veterinary medicine program.

ACCREDITATIONS

The University of Arkansas, Fayetteville, is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, available at (312) 263-0456, at http://www.ncahighered.org/ or by mail at 30 North LaSalle Street, Suite 2400, Chicago, IL 60602. Some colleges and programs are also accredited by other agencies, associations, or professional organizations, including those listed below.

Dale Bumpers College of Agricultural, Food and Life Sciences
The Bachelor of Science in Human Environmental Sciences (B.S.H.E.S.) degree programs are accredited by the Council for Professional Development of the American Association of Family and Consumer Sciences. The degree program in dietetics is accredited by the Commission on Accreditation for Dietetic Education of the American Dietetic Association. The Bachelor of Interior Design (B.I.D.) degree is accredited by the Council for Interior Design Accreditation (CIDA). The Nursery School and the Infant Development Center in the School of Human Environmental Sciences are accredited by the National Association for the Education of Young Children (NAEYC). The Bachelor of Science in Agricultural, Food and Life Sciences (B.S.A.) in food science is accredited by the Institute of Food Technologists. Teacher education programs in agriculture and family and consumer sciences are coordinated with educational programs in the College of Education and Health Professions and are accredited by the National Council for Accreditation of Teacher Education (NCATE).

School of Architecture
The Bachelor of Architecture (B.Arch.) program is accredited by the National Architectural Accreditation Board, and the Bachelor of Landscape Architecture (B. Landscape Arch.) program is accredited by the Landscape Architectural Accreditation Board of the American Society of Landscape Architects.

J. William Fulbright College of Arts and Sciences
The Bachelor of Science (B.S.) degree program in chemistry is accredited by the American Chemical Society. The American Council on Education in Journalism and Mass Communications has accredited the Bachelor of Arts (B.A.) degree program in journalism. The degree programs in the Department of Music are accredited by the National Association of Schools of Music. The Doctor of Philosophy (Ph.D.) degree program in psychology is accredited by the American Psychological Association. The Bachelor of Social Work (B.S.W.) and the Master of Social Work degree programs are accredited by the Council of Social Work Education.

Sam M. Walton College of Business
The Sam M. Walton College of Business offers degree programs for undergraduate students and for graduate students at both the master’s and doctoral levels and has been a member of and accredited by AACSB International, the Association to Advance Collegiate Schools of Business, since 1931. The accounting program was separately accredited in 1986 at both the bachelor’s and master’s levels. The master’s in business administration program was approved in 1963. Accreditation by AACSB and membership in that organization signifies the college’s commitment to AACSB goals of promoting and achieving the highest standards of business education.

College of Education and Health Professions
The teacher education programs in the College of Education and Health Professions are accredited by the National Council for Accreditation of Teacher Education. The M.A.T. program in childhood education is in compliance with the standards of the National Association for the Education of Young Children. The various M.A.T. licensure programs in secondary education are in compliance with the standards of the specialty organizations including National Council of Teachers of English, National Council of Teachers of Mathematics, National Science Teachers Association, and National Council for the Social Studies. The Master of Science degree program in speech pathology-audiology is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association. The Bachelor of Science in Nursing (B.S.N.) degree program is accredited by the National League for Nursing Accrediting Commission (61 Broadway Street, New York, NY 10006, 212-363-5555, Ext. 153) and is approved by the Arkansas State Board of Nursing. The Bachelor of Science in Education (B.S.E.) degree program in health science, kinesiology, recreation, and dance is accredited by the Council on Accreditation of the National Recreation and Park Association. The Master of Science degree in rehabilitation counseling is accredited by the Council on Rehabilitation Education.

College of Engineering
Accreditation has been approved by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology for the following degree programs in the College of Engineering: Bachelor of Sci-
ence in Biological Engineering (B.S.B.E.), Bachelor of Science in Chemical Engineering (B.S.Ch.E.), Bachelor of Science in Civil Engineering (B.S.C.E.), Bachelor of Science in Computer Engineering (B.S.Cmp.E.), Bachelor of Science in Electrical Engineering (B.S.E.E.), Bachelor of Science in Industrial Engineering (B.S.I.E.), and Bachelor of Science in Mechanical Engineering (B.S.M.E.), Master of Science in Environmental Engineering (M.S.En.E.), Master of Science in Transportation Engineering (M.S.T.E.).

School of Law

The degree programs in the School of Law on the Fayetteville campus are accredited by both the American Bar Association and the Association of American Law Schools.

SPECIAL PROGRAMS AND OPPORTUNITIES

Honors Studies

Interested students should write to the Director of Honors Program in the appropriate college.

The honors program in the Bumpers College of Agricultural, Food and Life Sciences provides students with opportunities for intellectual enrichment beyond the traditional undergraduate experience. This is accomplished through special honors courses, completion of an undergraduate honors thesis and other significant activities including interactions with students in honors programs in other colleges. The results of the student's original research or creative project are published in Discover, the college undergraduate research journal. In support of these efforts, participants in the Honors Program are eligible to receive an honors stipend in support of their research projects. The transcript and diploma of each honors graduate will designate the student as an honors graduate of the college. At the college commencement ceremony, each honors graduate will wear special regalia and have the title of their honors thesis and their mentors' names listed in the graduation program. Students must maintain a grade-point average of 3.25 to remain in the program. Students who do not participate in the program may also graduate with honors designation. For additional information, see the Bumpers College section of this catalog.

The Departments of Architecture and Landscape Architecture in the School of Architecture provide opportunities for students of superior academic and creative ability to enhance and enrich their professional and liberal education by participating in the School's honors programs. Please contact the School's Academic Advising Center for specific requirements.

To create an intellectual environment that will challenge the best of students, the J. William Fulbright College of Arts and Sciences provides a comprehensive program of honor studies. From the first year to the senior year, an honors student is provided the opportunity to study with other superior students in small distinctive classes taught by highly motivated and skilled faculty members. There are also opportunities for independent study so that students learn to work on their own and to develop their abilities and interests in ways that are not normally possible in regular college course work. Students participating in a program of honors studies also receive special academic counseling to satisfy their future career objectives. Students are offered every opportunity to achieve a high level of intellectual maturity and accomplishment. For additional information, see the Fulbright College section of this catalog.

The honors program in the Sam M. Walton College of Business is offered to high-achieving students interested in obtaining an outstanding business education at the University of Arkansas. Students who participate in the program will take honors classes in the University core as well as honors colloquia in the Walton College offered exclusively to honors students. The subject matter of these colloquia varies from year to year and focuses on current business issues. Students in the Walton Scholars Program will be offered a capstone course in the senior year involving actual consultation with an Arkansas business. Honors students also will complete a thesis in the senior year. Students in the honors program are entitled to register on the first day of registration week, have exclusive access to an honors computer lab and study area, and will be given priority consideration in such programs as the Arkansas Cooperative Education Program. For further information, see the Walton College section of this catalog.

The honors program in the College of Education and Health Professions enables undergraduate students who have demonstrated potential for outstanding scholarship achievement an opportunity to broaden and deepen their liberal and professional education. Honors students participate in honors seminars, leadership skills development and a required undergraduate thesis/project. Students are provided opportunities to enhance their learning experience through critical thinking, leadership skills development and independent study. For additional information, see the College of Education and Health Professions section of this catalog.

The College of Engineering has established an honors program to challenge superior students with a more in-depth academic program and research experience and to provide a structure for working more closely with faculty members and other students in a team environment. An honors program is highly recommended for individuals planning academic or research-related careers that require considerable critical and original independent thinking. Students must formally apply for admission to the Engineering Honors Program. Once accepted into the program, honors students take a minimum of 12 hours of honors courses (a minimum of 6 of these 12 hours must be in engineering), participate in undergraduate research and write an undergraduate thesis, and must fulfill any additional departmental requirements. To retain status in the Honors Program, a student must maintain a minimum cumulative grade-point average of 3.25 for all course work, computed at the end of the spring semester. To receive an honors Latin designation at graduation, a student must hold a cumulative GPA of 3.50 or better for all course work, computed at graduation. Students with a GPA between 3.25 and 3.50 do not receive a Latin designation at graduation. For more information, see the College of Engineering chapter of this catalog.

Campuswide Academic Honor Societies

For other academic honor societies, see the various school and college sections of this catalog.

Golden Key is an academic honor society open to selected juniors and seniors who have a minimum grade-point average of 3.50.

Order of Omega honor society is exclusive to members of the Greek community on the University campus. Selection of members is based upon leadership in the inter-Greek activities, academic honors, and contributions to the University community. A 2.50 GPA is necessary for membership consideration.

Phi Eta Sigma is an academic honor society for freshman students. Membership is selected in the spring each year, and the only requirement is a minimum GPA of 3.50 or better for the first semester of the freshman year.

Phi Kappa Phi is a national honor society whose primary objective is the recognition and encouragement of superior scholarship in all academic disciplines. Junior and senior undergraduate students who have a minimum GPA of 3.85 are eligible for membership. Also eligible are graduate students, registered for one year, who have a minimum GPA of 3.85.

Tau Alpha Upsilon is an honor society that honors outstanding students who live in the University of Arkansas Residence Hall system.

Who's Who, a general honor society, honors students who have excelled
in scholarship, leadership and campus activities throughout their college careers. Membership requirements are a minimum cumulative GPA of 2.00, completion of 85 credit hours, and at least two full semesters of attendance at the University of Arkansas, Fayetteville, prior to application.

**Campuswide Leadership Honor Societies**

- **Blue Key** is a service-oriented honor fraternity that recognizes outstanding scholarship, leadership and involvement in campus activities. Applicants must be classified as juniors and meet a minimum GPA of 2.75 for membership consideration.

- **Cardinal Key** is a junior service-oriented honor society whose membership selection is based on scholarship, leadership, and community and campus activities. A 3.00 GPA requirement must be met in order to be considered for membership at the end of the sophomore year.

- **Cardinal XXX** is a service-oriented honor society whose membership consists of a select group of sophomores. Membership selection is based on scholarship, leadership, and community service. A 3.00 GPA is required for consideration, and selection is made at the end of the freshman year.

- **Gamma Beta Phi** is a service-oriented honor society established to recognize and encourage excellence in education. Membership in the organization is open to students who are in the top 20 percent of their class.

- **Mortar Board** is a senior honor society that considers outstanding scholarship, leadership, and service to the campus and community when selecting members. Applicants must have a 3.00 GPA in order to be eligible for consideration.

**Graduate and Professional Study**

The University of Arkansas is the major center for comprehensive graduate-level instruction in the state, offering students the opportunity to continue their studies or to specialize in a particular field through the Graduate School. The University offers a wide range of graduate degrees, including the master's, the Educational Specialist, the Doctor of Education, and the Doctor of Philosophy. Non-degree graduate certificates are also offered. Information about graduate programs may be found in the Graduate School Catalog or on the World Wide Web at http://www.uark.edu/grad/.

The School of Law on the Fayetteville campus offers a juris doctor degree program for qualified students with a bachelor's degree, and it offers the nation's only master's program in agricultural law for students with a law degree. Further information concerning professional study may be obtained by contacting the School of Law dean's office for a copy of the current catalog: University of Arkansas School of Law, Leflar Law Center, 107 Waterman Hall, Fayetteville, AR 72701, 479-575-3102. The World Wide Web address is http://law.uark.edu/.

**Reserve Officer Training Corps**

A true job training program, ROTC is offered at the University of Arkansas through both the U.S. Air Force and the U.S. Army. Each department provides a unique, career-oriented set of courses relevant to future leadership positions within its particular branch. In addition to studying Aerospace Education or Military Science, students interact with one another in a practical setting as they examine and apply the dynamics of leadership, management, ethics, communication, and teamwork. Participants are given the background and comprehensive building blocks to become commissioned officers in the U.S. military, if qualified. Physical activities and summer orientation programs are enhanced with continually updated curriculums. Classes are taught by military personnel, ensuring realistic perspectives on the military professions.

In the finest traditions of the University of Arkansas and the ROTC programs, students are challenged to grow, develop and assume responsibilities throughout their academic careers. Underlying that teaching is a foundation of service, integrity and excellence – expected and demanded of all officer candidates. Scholarships and details of the two programs are found in the ROTC chapter of this catalog. Army ROTC is located in the Army ROTC building, 479-575-4251 or toll free 1-866-891-5538, http://www.uark.edu/armyhog/. Air Force ROTC is located in 319 Memorial Hall, 479-575-3651, http://www.uark.edu/afrotc/.

**Cooperative Education Program**

Cooperative Education is a unique program offered by the Office of Career Services that allows students to alternate between going to school and working in their chosen vocation. In addition, the program allows employers the opportunity to train and evaluate future employees before offering them positions.

Employment assignments are diversified to provide students with a variety of experiences related to their major field and with work of increasing difficulty and responsibility. Although the primary objective is to supplement theoretical knowledge with practical experience, students earn full-time pay while on work assignments. This benefit produces welcome income while the students are still pursuing a degree.

Positions are available to students in many disciplines, primarily engineering, architecture, landscape architecture, business, agriculture, natural science and mathematics. Co-op students must be in good academic standing; must be at least 18 years of age; must be making normal progress toward a degree, and must meet the specific requirements of their college. (For example: the College of Engineering and Dale Bumpers College of Agricultural, Food and Life Sciences require completion of the freshman year; Fulbright College of Arts and Sciences requires 45 credit hours and a 2.5 grade-point average; the Walton College of Business requires completion of pre-business program requirements; and the School of Architecture requires completion of the junior year.) In addition, employers may establish their own academic criteria for selecting students.

For further information, contact the Career Development Center, 607 Arkansas Union, 479-575-2805.

**Study Abroad**

The University encourages the expansion of students' educational experiences through study abroad. Student exchange programs have been established with Kansai University and Shimane University (Japan), Hankuk University (Korea), Al-Akhawayn University (Morocco), University of Graz (Austria), University of Essex (England), University of Maine (France), and Carlos III University of Madrid (Spain). Other UA study abroad programs include summer/semester/year-long programs in Austria, England, Scotland, Costa Rica, Ireland, France, Germany, Italy, Mexico, and Spain. A limited number of scholarships and travel grants are available each year for these programs.

For more information about study, work, and travel abroad, contact the Office of Study Abroad, a division of Fulbright College, 722 W. Maple, 479-575-7582. Students in the Bumpers College of Agricultural, Food and Life Sciences may contact International Agricultural Programs, 307 Hotz Hall, 479-575-6727. Students in the Walton College of Business may contact the Undergraduate Programs Office at 479-575-4622.
Admission

UNDERGRADUATE ADMISSION

Any person who intends to register for a course at the University of Arkansas must first be admitted to the University. Students returning to the University after an absence of a fall or spring semester must also complete an application.

For students with disabilities, the University offers a variety of services to those students with physical or learning disabilities through our Center for Educational Access. Students with any type of physical or learning disability are strongly encouraged to contact that office in Room 104 in the Arkansas Union, or call 479-575-3104 (TDD/Voice) to learn more about the specific nature of their services and the overall accessibility of the University.

The University reserves the right to modify admission requirements. Application forms and the most current information about admission requirements are available from the Office of Admissions. Please send all application materials and supporting documents to the following address:

Office of Admissions
232 Silas H. Hunt Hall
1 University of Arkansas
Fayetteville, AR 72701
Telephone: 479-575-5346 or 1-800-377-8632
http://admissions.uark.edu/

When to Apply

Students interested in applying to the University of Arkansas for the fall semester are urged to apply by the November 15 preferential deadline. Early applicants are given priority when applying for new student orientation and university housing. The preferential application deadline for the spring term is November 1. To be considered for freshman scholarships, the completed admission application, all required transcripts, test scores and application fee must be received by the Office of Admissions by February 1.

Deadlines for Admission Consideration

Applications and required transcripts must be received in the Office of Admissions by the following deadlines to be accepted for the respective enrollment periods:

Fall – August 15
Spring – December 20

Students who are unable to submit their applications by the deadline may be denied admission and considered for admission for the following term.

International students should refer to “Admission of International Students” in this chapter for application deadlines, procedures, and requirements.

How to Apply


2. Request that all required transcripts be sent to the Office of Admissions. Only official transcripts will be accepted. Transcripts are not considered official unless submitted in a sealed, stamped envelope or faxed directly from the previous institution. Questionable or unreadable transcripts may be refused.

3. High school transcripts are required of all entering freshmen and transfer students with fewer than 24 transferable semester hours. A preliminary admission will be provided to high school seniors on the basis of sixth- or seventh-semester transcripts. However, a final transcript showing all high school course work and certifying actual graduation must be submitted before a student may register for a second term.

College transcripts must be provided from each college or university attended. Transcripts must be sent directly to the Office of Admissions from each institution attended or submitted in an official sealed school envelope. For admission purposes, a transcript faxed directly from the institution's registrar's office with an official cover sheet will be accepted. However, in order to be considered for transfer credit, hard copy transcripts must be submitted directly from the school.

4. All new freshmen and transfer students with fewer than 24 transferable credit hours must submit ACT or SAT I test scores. Non-traditional students applying three or more years after high school graduation have the option of submitting the ACT ASSET or the ACT COMPASS to satisfy testing requirements. The University will not accept test scores taken more than five years prior to enrollment. Test scores should be sent directly to the University by the testing agency. The University’s institutional codes are: ACT-0144; SAT-6866.

5. English Proficiency: Applicants whose native language is not English must submit a Test of English as a Foreign Language (TOEFL) score of at least 550 (paper based), 213 (computer based), 80 (internet based), or a minimum score of 6.5 on the IELTS (writing) taken within the preceding two years. Students
who have completed grades 10-12 at a U.S. accredited high school and have a satisfactory ACT English subscore may request a review for waiver of this requirement. Students transferring from an accredited U.S. institution (or institution in a country where English is the native language) with at least 24 transferable credit hours and successful completion of English Composition I and II with a grade of "C" or above will not be required to submit the TOEFL or IELTS for admission consideration. For more information about the TOEFL, you may write to TOEFL Services, ETS, PO Box 899, Princeton, New Jersey 08541 or visit the World Wide Web at http://www.TOEFL.org/.

6. The University shall admit only those applicants whose enrollment will not be detrimental to the quality of life and the educational programs of the University. The Faculty Committee on Admissions and Transfer of Credit has authority to interpret University admission or transfer policy and to grant a variance. The Third Level Admission Committee has the final authority in admission and transfer policy. An applicant who has withheld pertinent information regarding educational background or who has falsified information or credentials may be denied admission to the University or, if enrolled, may be immediately withdrawn.

ADMISSION OF ENTERING FRESHMEN, ACADEMIC YEAR 2008-2009

Applications are reviewed on an individual basis with consideration given to the applicant's overall grade-point average (GPA), core GPA, class rank, standardized test scores, and a personal essay. New freshmen and those transfer students with fewer than 24 transferable semester hours should have taken or be completing the following college preparatory curriculum in high school:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 units</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4 units</td>
</tr>
<tr>
<td>(Units must be equivalent or of a higher level than Algebra I)</td>
<td></td>
</tr>
<tr>
<td>Social Studies</td>
<td>3 units</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3 units</td>
</tr>
<tr>
<td>1 unit general sciences – 2 units lab sciences (Choose two courses from biology, chemistry, and physics laboratory. Two years of principles of technology will meet one unit of natural sciences [physics]. Two years of applied biology/chemistry will meet one unit of natural sciences [biology].)</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>2 units</td>
</tr>
<tr>
<td>(To be chosen from English, foreign languages, oral communication, mathematics, computer science, natural sciences, and social studies.) As you choose your electives, residents of Arkansas please remember that to be eligible for Arkansas Department of Higher Education scholarships (i.e. Governor's or Challenge) students must also have 2 years of the same foreign language.</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16 units</td>
</tr>
</tbody>
</table>

Students who have taken these course requirements and who have a high school overall GPA of at least a 3.00 and an ACT of 20 (or SAT of 930 combined critical reading and math) or better meet the general admission requirements. Students not meeting these criteria are still encouraged to apply and will be reviewed for possible admission by the Third Level Admission Committee.

Accelerated Admission

Superior high school students who have completed a rigorous college preparatory curriculum may seek admission to the freshman class at the end of their junior year of high school. Applicants for accelerated admission are required to complete certain required subjects during three years of high school study, to submit letters of recommendation, and to submit an ACT or SAT score equivalent to at least the 90th percentile of the University's previous entering class. Additional information and application materials may be obtained by visiting or calling the Office of Admissions at 1-800-377-8632 or online at http://admissions.uark.edu.

ADMISSION OF TRANSFER STUDENTS

Transfer Admission Requirements

Applicants who have attended other colleges or universities after high school graduation are considered transfer students. The applicant must submit official transcripts of all previous college courses attempted whether or not credit was earned and regardless of whether the applicant wishes to transfer any credit. This transcript must be sent directly to the Office of Admissions from each institution attended. All transfer students must meet the following requirements:

1. Have a cumulative grade-point average of at least 2.00 on all course work attempted, and
2. Be eligible to return to the last institution attended. Grade-point average is calculated on all course work attempted.

Students who have completed fewer than 24 transferable semester hours must, in addition to the above requirements, meet all requirements for freshman admission (see Admission of Entering Freshmen). Test scores and transcripts are also evaluated to determine whether State of Arkansas requirements for developmental course placement have been met. (See page 27.) For policies regarding transfer of credit from other institutions, see page 43.

ADMISSION OF SPECIAL (NON-DEGREE SEEKING) STUDENTS

Applicants who are not interested in working toward a degree while taking classes may, under certain conditions, be approved to do so upon submitting an application for admission. Degree-seeking students attending part-time or as an “undeclared major” should not confuse their status with this special, non-degree seeking category. The Office of Admissions reserves the right to determine the proper category of admission and to determine what credentials may be required.

Classification as a special student permits enrollment in credit classes (or as an auditor) on a space-available basis; however, special students are not eligible for financial aid, and the University incurs no particular obligation to provide academic advisement.

Admission as a non-degree student is not intended to serve as a means of access to regular, degree-seeking status nor is it intended for a person who has earned unsatisfactory grades in previous high school or college course work. Students who have been denied regular undergraduate admission are not eligible for this status. Special students are subject to the same regulations concerning scholastic probation, suspension, and dismissal as other undergraduate students. Students who have previously been assessed developmental course requirements, high school course deficiencies, or a conditional admission will retain that status as a special student.

Special students must meet course prerequisites and should be prepared to verify to the department by official documentation that University course
prerequisites have been met, if appropriate. Students planning to enroll in any upper-division education courses should verify admission to the Teacher Education Program prior to registration. Special students may not enroll for more than nine hours of courses in a term without approval of the student's academic dean.

Unless otherwise specified, students with special status who wish to be admitted into a degree program at the University of Arkansas must apply for admission as such prior to the beginning of the term for which the change of status is requested. All requirements for admission to regular status must then be met. No more than 24 semester hours earned while in a non-degree seeking status will apply to a degree at the University.

**When to Apply**

Special students must meet the same application deadlines as other students with the exception of students participating in the senior citizen's registration. For further information consult the online schedule of classes, www.uark.edu/classes/.

**How to Apply**

The following students may be considered for special status:

1. Visiting students from other colleges or universities who wish to enroll at the University to earn credits that they plan to transfer back to their home institution. It is the student's responsibility to verify with his or her college that courses taken here will be acceptable as transfer credit.

Application procedure: Submit a completed application, a non-refundable application fee, and a letter of good standing verifying eligibility to return to the home institution.

2. Students who want to take courses of special interest for personal or professional development, but who are not interested in working toward a degree. Applicants in this category are normally expected to have been out of high school for three or more years.

Application procedure: Submit a completed application and non-refundable application fee. Students who have been out of high school less than five years should submit a transcript and test scores verifying that admission requirements have been met. The application fee is not required for students 60 years and older.

3. Students who already have a college degree and who want to take credit classes, but not toward another degree at this time. Applicants in this category are normally expected to have been out of high school for three or more years.

Application procedure: Submit a completed application and non-refundable application fee. Students who have been out of high school less than five years should submit a transcript and test scores verifying that admission requirements have been met. The application fee is not required for students 60 years and older.

4. Dually enrolled high school students must have at least a 20 ACT score and a 3.00 high school GPA to enroll. Dually enrolled high school students are ineligible to enroll in remedial courses.

Application procedure: Submit a completed application, a non-refundable application fee, ACT or SAT scores, high school transcript, letter of intent regarding courses student wishes to enroll, and a letter of recommendation from the high school principal or counselor. Admissions applications should be submitted at least one month in advance of the term and must be submitted by the application deadlines.

Dually enrolled high school seniors who plan to enroll in the fall as regular freshmen must submit a separate application for regular admission for the fall.

**READMISSION OF RETURNING UA STUDENTS**

Any former student who wishes to return to the University after missing a fall or spring semester should complete an application for admission. Students enrolled in UA correspondence courses during their absence must be readmitted. A $40 non-refundable application fee is required for former students.

**When to Apply**

An early readmission will enable you to register during priority registration. You should submit your application and all appropriate credentials at least one month prior to the time you plan to register. For registration dates and procedures, you may view the schedule of classes on the Internet at http://www.uark.edu/classes/.

**Deadlines for Admission Consideration**

Applications and required transcripts must be received in the Office of Admissions by the following deadlines to be accepted for the respective enrollment periods:

- **Fall** – August 15
- **Spring** – December 20

Students who are unable to submit their applications by the deadline may be denied admission and considered for admission for the following term.

**Requirements**

1. Students must be academically eligible to return to the University and are readmitted with the same academic status as held during their last attendance. Course work taken at another institution will not affect a student's probationary status or UA grade-point average. Students may change degree programs on re-admission to the University of Arkansas regardless of academic status, except for students entering the College of Engineering. A student may not enter the College of Engineering if the student is not in good standing. Students who have not satisfied their initial provisions of admission (but are still eligible to return) will be required to satisfy those conditions upon their return.

2. Students with transfer work: Students who have attended another institution while away from the University will be considered transfer students and must meet those requirements, including either a 2.00 grade-point average on all college work attempted and/or a 2.00 on all course work attempted since last UA attendance. Official transcripts of all course work attempted since last attendance at the University must be submitted (see Admission of Transfer Students).

3. Former special students: Students who previously attended the University as special students and wish to return as degree-seeking candidates must apply for admission as freshmen or transfer students, furnishing all appropriate admission credentials, including any required test scores. All requirements for admission to regular status must be met. (See appropriate section of this catalog for requirements.)

4. Former students who are submitting petitions to either the Academic Standards Committee or the Faculty Committee on Admissions and Transfer of Credit to request readmission must have on file all required documents by the application deadlines. (See the schedule of classes for deadlines for submitting petitions.)
ADMISSION OF INTERNATIONAL STUDENTS

All international students must present officially certified academic credentials, evidence of adequate financial support, and, for non-native English speakers only, a minimum TOEFL score of 550 (paper based), 213 (computer based), 80 (internet based), or a minimum score of 6.5 on the IELTS, taken within the preceding two years. Students who have completed grades 10-12 at an accredited high school and have a satisfactory ACT English subscore may request a review for waiver of this requirement. Students transferring from an accredited U.S. institution (or institution in a county where English is the native language) with at least 24 transferable credit hours and completion of English Composition I and II with a grade of “C” or above will not be required to submit the TOEFL or IELTS for admission consideration.

Applicants who meet the academic and financial requirements but who do not meet the English proficiency requirement of the University will be offered conditional admission and are required to attend an intensive English program through the Spring International Language Center. Students will be eligible to enroll in academic courses upon successful completion of the highest level of the intensive English program with a 3.00 grade average and recommendation of the director of Spring International.

An entering freshman who has completed secondary school at either U.S. or foreign institutions must have a) the equivalent of a final cumulative grade-point average of at least 2.75 and b) competency equivalent to that developed by taking four years of English and three years each of mathematics, natural sciences, and social studies, and an additional three units of electives chosen from English, speech, foreign languages, mathematics, natural sciences, or social studies in U.S. high schools.

A student transferring with fewer than 24 semester hours of post-secondary work at either U.S. or foreign institutions must a) have a cumulative grade-point average of at least 2.50 (or its equivalent) on all post-secondary work attempted, and b) meet the requirements specified for entering freshmen. A student transferring from either a U.S. or foreign post-secondary institution with at least 24 semester hours must have the equivalent of a cumulative grade-point average of at least 2.50 on all post-secondary course work attempted.

A non-refundable application fee of $50 is required for all international applicants. All applications and supporting documents must be submitted by May 31 for the fall semester; October 31 for the spring semester; and March 1 for the summer sessions.

Any international student returning to the University after an absence of a full semester (fall or spring) or more must submit an application for admission. For these students, the application deadlines are August 15 for the fall term and January 1 for the spring term. It should be noted that a student previously enrolled at the University of Arkansas who takes a full term of courses elsewhere and then seeks readmission to the University returns as a transfer student and must meet University admission requirements for international transfer students, submit a photocopy of the I-20 issued by the transferring institution, and submit a new financial statement. An application fee is not required for returning students.

For specific admission requirements and application materials pertaining to students on F-1 or J-1 visas, applicants should write directly to the International Admission Office, 747 W. Dickson Street, Suite 8, 1 University of Arkansas, Fayetteville, Arkansas 72701, or call 479-575-6246 or e-mail iao@uark.edu.

Please see the section “Placement and Proficiency Tests” on this page for University policy regarding English language use by non-native speakers.

ACADEMIC BANKRUPTCY

Students returning to the University after an absence of five or more years may be eligible to declare academic bankruptcy if they meet the following criteria:

1. Must have been enrolled previously at the University of Arkansas, Fayetteville, as an undergraduate student and be returning as an undergraduate student.
2. Must not have been enrolled at the University during the previous five years.
3. Students who have attended another institution since their last attendance at the University must meet requirements for transfer students (2.00 GPA on all course work attempted more than five years after last enrollment at the University of Arkansas, Fayetteville) to be eligible for readmission.
4. Must submit an application for readmission and official transcripts of all college work attempted since last attendance at the University of Arkansas by the application deadlines and submit Declaration of Academic Bankruptcy form (available from the Office of Admissions or academic dean’s office). The following are the conditions of academic bankruptcy:
   a. Students will forfeit all credit hours previously awarded by the University of Arkansas, Fayetteville. This includes course work completed at the University (regardless of grades earned), courses accepted in transfer, credit by examination, and any correspondence course work awarded.
   b. A new calculation of grade-point average and credit hours will begin when the student returns to the University.
   c. The transcript will reflect the student’s complete record (including all previous college work) with an added notation of “Academic Bankruptcy Declared.”
   d. Courses taken at another institution within five years of the last UA enrollment will not be accepted in transfer. Course work completed more than five years after last UA enrollment may be accepted in transfer, subject to UA transfer credit policies. For purposes of this policy, UA correspondence course work will be treated in the same manner as transfer work.
   e. For the University to provide appropriate advising and (as required by Arkansas Act 1052) appropriate assessment, a student may be required to submit ACT, SAT, COMPASS or ASSET test scores prior to registration for classes if, as a result of academic bankruptcy, that student is returning to the University as a freshman with fewer than 24 transfer hours.

PLACEMENT AND PROFICIENCY TESTS

ACT, SAT, ACT ASSET and ACT COMPASS scores are used to determine placement in University courses. Students whose scores indicate the need for additional preparation may be placed in courses designed to prepare them for college-level work. (See Arkansas Requirements for Developmental Course Placement on page 27.) Credit earned in such courses does not count toward degrees in all colleges. (See Courses That Do Not Count toward Degrees, page 27.)

Freshman Composition Placement

• Students with ACT English scores lower than 20, or SAT verbal scores lower than 480, ACT ASSET writing skills scores lower than 45 or ACT COMPASS writing skills lower than 75 should
enroll in the course sequence ENGL 0003, ENGL 1013, and ENGL 1023.

- Students with ACT English scores of 20-27, SAT verbal scores of 480-620, ACT ASSET writing skills scores of 45 or higher or ACT COMPASS writing skills of 75 or higher should enroll in ENGL 1013 and ENGL 1023.
- Students with ACT English scores of 28-29 or SAT verbal scores of 630-670 may enroll in ENGL 1013 and ENGL 1023 or in Honors English (ENGL 1013H and ENGL 1023H).
- Students with ACT English scores greater than 29 or SAT verbal scores greater than 680 may enroll in Honors English (ENGL 1013H and ENGL 1023H) or elect exemption. Students who elect exemption must complete the appropriate forms available in the English departmental office. Some degree programs require credit in composition, and students should confer with their advisors before exempting.

The Math Placement Test
This test is offered during new student orientation and is required of new freshmen who have not presented ACT, SAT, ASSET or COMPASS mathematics scores and of transfer students who have not taken and passed a college-level Calculus I course. Students may opt to take the placement test to improve their placement in mathematics.

Speech Communication Exemption Examination
Students who have had speech in high school and/or experience in public speaking may elect to take this test for exemption from or credit in COMM 1313. Both the written and oral (a five-minute impromptu speech) examinations must be passed to receive exemption or credit.

Foreign Language Placement Examinations
Students with previous foreign language experience in French, German, or Spanish are encouraged to take language placement examinations offered during summer orientation. Those test scores will be used by academic advisors to determine an appropriate foreign language placement level. Students who omit one or more courses in the basic language sequence will receive credit for omitted courses when they have validated their high placement by passing the course into which they were placed with a “C” or better. Conversation courses (3033, 4033) and correspondence courses may not be used to validate such prior knowledge; and no degree credit (graduation credit) is awarded for a foreign language 1003 course to students in the J. William Fulbright College of Arts and Sciences who are continuing the language begun in high school, either by validation or regular registration.

General Chemistry Placement Examinations
These tests will be offered during orientation and at other times during the year. Students who performed at above average levels in high school chemistry may find it to their advantage to enroll directly in the second semester of general chemistry. This examination is designed to provide guidance in making this course selection. Students who place into the second semester of general chemistry and earn a grade of “C” or better in the course will also receive credit for the first semester of the course.

English Language Use by Non-Native Speakers
Non-native speakers of English admitted to undergraduate study at the University of Arkansas are required to present an acceptable score on one of the following tests: TOEFL (TWE), Internet based TOEFL (iBT) (writing), IELTS (writing), or ELPT (writing). Depending upon exam scores, a student may be required to take one or more EASL courses prior to the beginning of classes in their first term of study. Non-native speakers in the following categories are exempt from this requirement:
1. Undergraduate students who transfer at least 24 hours of credit from U.S. institutions, including courses that meet the freshman composition requirement;
2. Undergraduate students who have completed grades 10 through 12 in and graduated from a U.S. high school and have obtained an ACT English section score of 19 or above or a SAT verbal score of 460.
3. Graduate students who earned bachelor's or master's degrees from U.S. institutions or from foreign institutions where the official and native language is English;
4. Graduate or undergraduate students with a Test of Written English (TWE) score of 5.0 or iBT writing score of 28 or IELTS writing score of 6.5.
5. Graduate students with a Test of Written English (TWE) score of 5.0 or iBT writing score of 29 or IELTS writing score of 7.0.
6. Graduate students with a GRE Analytical Writing score of 4.5 or GMAT Analytical Score of 4.5.

Diagnostic and placement testing is designed to test students’ ability to use English effectively in an academic setting, and its purpose is to promote the success of non-native speakers in completing their chosen course of study at the University of Arkansas. Test results provide the basis for placement into English as a Second Language (EASL) support courses or course sequences. Courses are offered by the Department of Foreign Languages for those students whose language skills are diagnosed as insufficient for college-level work at the level to which they have been admitted (undergraduate or graduate study). Credit in EASL courses do not count toward University of Arkansas degrees. Non-native speakers diagnosed as having language competence sufficient for their level of study will not be required to enroll in EASL courses.

The ELPT is administered by Testing Services during New Student Orientation and there is a $10.00 charge.

Undergraduate and graduate students assessed EASL courses are required to complete these courses during their first semester of enrollment at the University.

GRADUATE SCHOOL ADMISSION

Applications for admission to the University of Arkansas Graduate School and two official copies of transcripts of the applicant’s academic record at each college and university attended since high school graduation must be submitted to the graduate school admissions office and approved in advance of registration. The transcripts will become a part of the student’s permanent file at the University. Applications may be obtained by writing to the Graduate and International Admissions Office, 747 W. Dickson Street, Suite 8, 1 University of Arkansas, Fayetteville, AR 72701, or by calling 479-575-6246 or by applying on the World Wide Web at http://www.uark.edu.

Additional information and procedures for making application to the Graduate School are included in the Graduate School Catalog.

Admission to Graduate Standing
To be admitted to graduate standing, a student must have earned a baccalaureate degree from a regionally accredited U.S. institution or from an institution with substantially equivalent requirements for a baccalaureate degree and must have a grade-point average of 3.0 or better on the last 60.0 credit hours of attempted coursework prior to receiving the baccalaureate degree.

Admission to graduate standing does not admit a student to a specific...
program of study leading to a graduate degree. Therefore, in addition to satisfying the general requirements of the Graduate School, the applicant must also comply with the specific requirements and have the approval of the department in which graduate study is desired.

Under certain conditions, applicants for admission to the Graduate School may be required to present satisfactory scores on the graduate record examinations (GRE) or another specified national standard test.

For further details see the Graduate School Catalog.

SCHOOL OF LAW ADMISSION

A baccalaureate degree is required for admission to the University of Arkansas School of Law, except for those students in the J. William Fulbright College of Arts and Sciences or in the Dale Bumpers College of Agricultural, Food and Life Sciences who are admitted to the special six-year program. All applicants for admission are required to take the law school admission test. (See page 120 for the Fulbright College Pre-Law Program or page 75 for the Dale Bumpers College of Agricultural, Food and Life Sciences).

For complete details concerning admission to the University of Arkansas School of Law, see the School of Law Catalog or write to Office of Admissions, Leflar Law Center, University of Arkansas, Fayetteville, AR 72701, telephone 479-575-3102. Applications can be submitted on the World Wide Web at http://apply.uark.edu/.
Financial Aid and Scholarships

FINANCIAL AID

The University of Arkansas annually awards over $100 million of financial aid and scholarships to students. Financial aid is divided into categories of grants, work, loans, and scholarships. Unless otherwise specified, a student needs to complete only two forms to apply for all four basic types of assistance: The Free Application for Federal Student Aid (FAFSA), which analyzes the ability of the student’s family to pay for college; and the University’s Application for Admission. These forms collect information used by the Office of Financial Aid and the University's scholarship committees in determining awards. In some cases, copies of the parents’ and/or student’s tax returns are needed.

DETERMINING FINANCIAL NEED

To determine financial need, a student must complete the FAFSA. Students release their information to the University of Arkansas by completing the college release section with the University of Arkansas Title IV Code of 001108.

There is a priority date of MARCH 1 for the submission of the FAFSA for the approaching school year for new students. Federally funded financial aid will be awarded on the basis of need as reflected by the FAFSA.

The Student Aid Report from the FAFSA (consisting of several pages) will be sent directly to the student by the Central Processing Service. A student needs to be enrolled or accepted for enrollment before a financial aid award may be generated. To continue receiving financial aid, the student needs to be making satisfactory progress toward a degree, as defined by the University of Arkansas. (See Satisfactory Academic Progress.)

APPLICATION PROCEDURE

1. Apply for admission to the University, if not currently enrolled or admitted.

2. Complete the Free Application for Federal Student Aid (FAFSA) and submit it to the federal processor by mail or online. You may submit the FAFSA on the Web at http://www.fafsa.ed.gov/.

Students hoping to be considered for scholarships need to have their application for admission submitted by February 15 to the University for priority consideration. However, please check with your department for earlier deadlines and additional forms. To receive priority consideration for financial aid, all forms and applications need to be submitted by March 1. Students are encouraged to apply even if they miss this priority date. Funds will be available after the priority date.

A student has a couple of choices concerning processing his or her FAFSA. These include mailing the form to the Federal Student Aid Programs or submitting it electronically on the Web at http://www.FAFSA.ed.gov/. The processing time for electronic applications is three days, and processing time for mailed applications is four to six weeks.

SATISFACTORY ACADEMIC PROGRESS

Federal regulation requires that a student must be making satisfactory academic progress regardless of whether he or she has previously received Title IV aid. All students enrolled at the University of Arkansas who receive financial aid through the Title IV Assistance Programs must meet satisfactory academic progress requirements as defined below to be eligible for further aid. Satisfactory academic progress is deemed to have been made by any undergraduate student who meets both the quantitative and qualitative requirements indicated below.

Quantitative Requirements

There are two quantitative requirements that the student must meet to remain eligible to apply for financial assistance. First, the student must pass, at a minimum, 67 percent of the credits attempted while attending the University. Also, the student will remain eligible to apply for aid as long as the number of credits attempted is not more than 150 percent of the number of credits required for graduation.

A transfer student may have earned credits at another school that will count toward his or her degree at the University of Arkansas. Only transfer credits that apply to the student’s degree will count as part of the 150 percent maximum.

The determination of each student’s meeting the quantitative requirements for satisfactory academic progress will be made annually following the conclusion of the spring semester. If a student fails to pass at least 67 percent of the credits attempted or has attempted more than 150 percent of the number of credits required for graduation, then the student must appeal for reinstatement of financial aid eligibility.

Qualitative Requirements

A student is deemed to have met the qualitative requirements for satisfactory academic progress for financial aid purposes provided the student’s academic status is not one of Academic Dismissal.
Financial Aid and Scholarships

Graduate and Law Students
Satisfactory academic progress for graduate and law students is determined as described above with one exception. In order to meet the quantitative requirement, the student must pass with at least a grade of "C," at a minimum, 67 percent of the credits attempted while attending the University at the graduate level.

SCHOLARSHIPS

The Office of Academic Scholarships is part of the Honors College and is housed in Old Main, Room 101.

The University of Arkansas, Fayetteville, awards over 5,000 scholarships totaling more than $18 million for students each year. This total does not include funds that support such external scholarships held by UA students as Governor’s Scholarships or Arkansas Academic Challenge Scholarships. Scholarships funded by the University fall into three broad categories: distinguished fellowships, academic scholarships, and special interest/skills scholarships. The scholarship information contained below applies to students entering for the 2008-2009 academic year. Current high school students interested in fellowships, academic scholarships, and special interest/skills scholarships. The Office of Academic Scholarships Web site at http://scholarships.uark.edu for the most up-to-date information.

SCHOLARSHIPS FOR NEW STUDENTS

Prestigious Fellowships
The University of Arkansas offers approximately 90 prestigious Fellowships a year. The fellowships are given in one of four different programs: The Sturgis Fellowship, established in 1985; the Bodenhamer Fellowship, established in 1998; the Boyer Fellowship, established in 2000; and the Honors College Fellowship, established in 2002. The prestigious fellowships are among the most competitive in the nation and are awarded to the top 2 percent of students. Each Fellow receives up to $50,000 for four years of study. Students who wish to apply or want to see a full list of fellowships should visit the Web site at http://honorscollege.uark.edu/.

Academic Scholarships
A limited number of academic scholarships also are awarded to entering freshmen. Selection criteria include national test scores (ACT or SAT), grade-point average, National Merit or National Achievement recognition, quality and quantity of courses taken, and other pertinent factors. (See the chart on following page for details.) For online information, go to http://scholarships.uark.edu/. Transfer student scholarships are awarded to students transferring from two-year colleges in Arkansas in conjunction with the Arkansas Association of Two Year Colleges’ (AATYC) Academic All-Star program. Nominations are submitted to the AATYC and recognized at their annual conference.

UA Scholarships – General Information
The following regulations govern the general University scholarships described below:

1. FEBRUARY 1 is the scholarship deadline for entering freshmen. An applicant must be admitted to the University by the above mentioned deadline to be considered for these scholarships.
2. An “entering freshman” is defined as a student who has not enrolled in another post-secondary institution in a fall or spring semester following graduation from high school.
3. Eligibility for renewal of Chancellor’s and general University scholarships is determined at the end of the second semester each award year. Students may “catch up” in summer terms by taking classes at their own expense on the Fayetteville campus.

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<table>
<thead>
<tr>
<th>Name</th>
<th>Annual Award</th>
<th>Eligibility Criteria</th>
<th>Application Procedure</th>
<th>Renewal Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bodenhamer Fellowship</td>
<td>$12,500 per year and out-of-state differential</td>
<td>32 ACT/1420 SAT, 3.70 GPA National Merit or National Achievement finalists. Exceptional academic performance. Letters of recommendation required.</td>
<td>Requires application for admission along with the fellowship application (honorscollege.uark.edu).</td>
<td>Cumulative 3.00 GPA and 30 hours earned by the end of the second semester of each academic year. 4 years or 8 semesters total.</td>
</tr>
<tr>
<td>Boyer Fellowship</td>
<td>$12,500 per year</td>
<td>For majors in the Sam Walton College of Business 3.50 cumulative GPA and 32 ACT/1320 SAT or higher. Arkansas high school graduates demonstrating financial need (FAFSA must be completed prior to selection of recipients) and strong leadership. Letters of recommendation required.</td>
<td>Requires application for admission along with the Boyer Fellowship application. Go to <a href="http://waltoncollege.uark.edu/">http://waltoncollege.uark.edu/</a> for details.</td>
<td>Cumulative 3.00 GPA and 30 hours earned by the end of the second semester of each academic year. 4 years or 8 semesters total.</td>
</tr>
<tr>
<td>Honors College Fellowship</td>
<td>$12,500 per year and out-of-state differential</td>
<td>ACT 32 or 1420 SAT with strong academic performance.</td>
<td>Requires application for admission along with the fellowship application (honorscollege.uark.edu).</td>
<td>Cumulative 3.00 GPA and 30 hrs. earned by the end of the 2nd semester of each academic year.</td>
</tr>
<tr>
<td>Sturgis Fellowship</td>
<td>$12,500 per year and out-of-state differential</td>
<td>For majors in Fulbright College of Arts &amp; Sciences. 30 ACT/1320 SAT, 3.70 minimum GPA and exceptional academic performance.</td>
<td>Requires application for admission along with the fellowship application (honorscollege.uark.edu).</td>
<td>Cumulative 3.00 GPA and 30 hours earned by the end of the second semester of each academic year. 4 years or 8 semesters total.</td>
</tr>
<tr>
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<tr>
<td>Chancellor's Merit Scholarship</td>
<td>Up to $10,000, plus the amount of either a Corporate or a UofA National Merit Scholarship, per year toward the direct cost of education, includes out-of-state tuition differential</td>
<td>National Merit or National Achievement finalists. Exceptional academic performance. Competitively Awarded</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Cumulative 3.00 GPA and 30 hours earned by the end of the second semester of each award year. 4 years or 8 semesters total (5 years or 10 semesters for students in Architecture or the M.A.T. program).</td>
</tr>
<tr>
<td>Chancellor's Scholarship</td>
<td>Up to $8,000 per year toward direct cost of education, including tuition, fees and double-occupancy room and board in UA residence hall or Greek housing</td>
<td>Applications are competitive and typically come from the top 5% of the applicant pool. National Merit Semifinalists and National Achievement Semifinalists are also considered. Competitively Awarded</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Criteria same as for Chancellor's Merit Scholarship. (see above)</td>
</tr>
<tr>
<td>Chancellor's Distinguished Governor's Scholarship</td>
<td>The amount of the Arkansas Distinguished Governors Scholarship plus up to $8,000, depending on estimated cost of attendance</td>
<td>Applicable to students awarded both the Chancellor's Scholarships and the Arkansas Distinguished Governor's Scholarship by the Arkansas Department of Higher Education.</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Criteria same as for Chancellor's Merit Scholarship. (see above)</td>
</tr>
<tr>
<td>Honors College Academy Scholarship</td>
<td>$4,000 per year</td>
<td>Considerations made for Arkansas residents from geographically under-represented areas with a minimum 27 ACT and 3.50 GPA. Competitively awarded.</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Criteria same as for Chancellor's Merit Scholarship. (see above)</td>
</tr>
<tr>
<td>Nonresident Tuition Award</td>
<td>Out-of-state tuition differential Variable amount based on hours enrolled</td>
<td>Students from TX, MS, LA, KS, MO, OK or TN must have a 3.50 GPA. Entering freshmen must score 25 on the ACT (1130 SAT); Transfer students must have 24 credit hours and a 3.00 GPA.</td>
<td>Apply for admission. No scholarship application is required. Deadline: on a rolling basis until funds are exhausted</td>
<td>Renewable with completion of 30 hours per academic year, 3.00 minimum GPA. Up to 4 years (5 years for students in Architecture or the Master of Arts in Teaching program).</td>
</tr>
<tr>
<td>University Scholarship</td>
<td>$4,000 per year</td>
<td>Applications are competitive and typically come from the top 5 percent to 10 percent of the applicant pool.</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Criteria same as for Chancellor's Merit Scholarship. (see above)</td>
</tr>
<tr>
<td>University of Arkansas Leadership Award</td>
<td>$2,000 per year</td>
<td>Students who have demonstrated outstanding leadership qualities and potential. Competitively awarded.</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Criteria same as for Chancellor's Merit Scholarship. (see above)</td>
</tr>
<tr>
<td>Silas Hunt Distinguished Scholarship</td>
<td>Variable awards of $5,000 or $8,000</td>
<td>Students who have demonstrated outstanding academic leadership qualities and potential and are from under-represented communities, which include but are not limited to: under-represented ethnic and minority groups; students with interest in fields of study that do not attract members of their ethnicity or gender; under-represented counties in Arkansas; or a first-generation college student. Competitively awarded.</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Criteria same as for Chancellor's Merit Scholarship. (see above)</td>
</tr>
<tr>
<td>Transfer Student Scholarship</td>
<td>AATYC Academic All Star receives full-tuition scholarship. Alternate receives $2,000 per year. Strong academic performance in transfer college credit earned from an Arkansas two-year institution.</td>
<td>Students nominated as AATYC Academic All Star or alternate by their two-year college.</td>
<td>Students nominated as AATYC Academic All Star or alternate by their two-year college.</td>
<td>Cumulative 3.00 GPA and 30 hours at the end of 2 years or 4 semesters of each award year (3 years or 6 semesters for students in Architecture or the Master of Arts Teaching program).</td>
</tr>
</tbody>
</table>
4. These scholarships are generally awarded per academic year to cover the fall and spring terms, up to an eight-semester maximum for most students, or a ten-semester maximum for students in architecture or pursuing a Master of Arts in Teaching. Renewal criteria are evaluated every two semesters. See http://scholarships.uark.edu for renewal schedules.

5. A student who is placed on academic warning forfeits his or her scholarship effective the semester of academic warning. See http://www.uark.edu/admin/reginfo/docs/academicwarning/ASPolicy.html for a full description.

Scholarships, Grants, and Other Awards for Non-Resident Students

See page 33 in Fees & Costs.

COLLEGE AND DEPARTMENTAL SCHOLARSHIPS

The following college and departmental scholarships are available to entering freshmen at the University of Arkansas. Complete addresses and phone numbers of the colleges, schools, or departments listed below may be found in the respective college or school sections of this catalog.

School of Architecture

The School of Architecture offers a limited number of scholarships at various amounts to entering freshman in any of the degree programs offered by the School. Several scholarships are renewable annually to the recipient who maintains all the requirements of the scholarship. Upon graduation or forfeiture by the recipient, another scholarship is awarded. Many upper level scholarships are available to continuing students. Applications are available in the fall and recipients selected in the spring for the following academic year. For more information and scholarship applications, please go to: http://architecture.uark.edu/scholarships.html

J. William Fulbright College of Arts and Sciences

The J. William Fulbright College of Arts and Sciences offers many outstanding scholarship opportunities. Collectively, Fulbright’s 19 departments offer more than 100 scholarships and awards. At the college level, 12 scholarships benefit students in the arts and sciences. For comprehensive information about these awards, call 479-575-4801 or visit the Web at http://www.uark.edu/~arsc/students/scholarships.html.

Three college-wide scholarships merit special attention: Through the Sturgis Fellowship Program, Fulbright College offers premier scholarships worth $50,000 over four years to exceptionally talented students with the intellectual potential to become future leaders in society. In addition, all honors students are eligible to apply for research and study abroad funding through the Sturgis Grants Program. For information or an application, contact Director of Honors Studies at 479-575-2509.

The King Fahd Center for Middle East and Islamic Studies offers substantial four-year and two-year renewable scholarships to superior students majoring in Middle East Studies. The program also offers competitive funding for language study in Morocco, Tunisia, and Egypt. Funding for summer study abroad and research projects is considered on a case-by-case basis. Scholarship applications and information about the program can be obtained by contacting mest@uark.edu or calling 479-575-4157.

In honor of the Fulbright commitment to international education, the College offers the J.W. and Elizabeth W. Fulbright Endowed Scholarship, which supports a year of study abroad. To qualify, students must display an interest in one of the following fields: literature, history (including theatre, art, and music history), jurisprudence, philosophy, archaeology, comparative languages, and those aspects of the social sciences that employ philosophical or historical approaches. For more information about these opportunities, call 479-575-4801 or visit http://www.uark.edu/~arsc/students/scholarships.html.

Dale Bumpers College of Agricultural, Food and Life Sciences

The Division of Agriculture Land Grant Scholars Endowment Program provides up to 16 scholarships, dependent upon the availability of funds: the goal is to award one graduate fellowship at $11,000; two undergraduate scholarships $8,000 each, one to an entering freshman and the other to a new transfer student; 13 undergraduate scholarships for $4,000 to three entering freshman and to ten new transfer students.

Dale Bumpers Distinguished Scholar Program provides one $2,500 scholarship to the outstanding transfer undergraduate and a $1,000 award to the outstanding Ph.D. graduate student and a $500 award for the outstanding M.S. graduate student.

Information and application procedures regarding these and approximately 200 departmental scholarships are available on the college Web site: http://bumperscollege.uark.edu/39.htm or call the Scholarship Administrator at 479-575-2253.

Sam M. Walton College of Business

The Boyer Fellowship is offered to Walton College students who have achieved at an outstanding level both in and out of the classroom. High grades and standardized test scores are required along with a strong commitment to service and the demonstration of exceptional leadership skills. Applicants for the Boyer Fellowship must demonstrate financial need.

Other scholarships are available through the departments of accounting, information systems, economics, finance, management, and marketing & logistics as well as through the Walton College's general scholarship program. Scholarships are primarily awarded on the basis of academic achievement and/or financial need.

For further information on Walton College scholarships, contact the Undergraduate Programs Office at 479-575-4622.

College of Education and Health Professions

The College of Education and Health Professions offers several hundred scholarships for academic year. Recipient selection is based on a variety of different attributes that are specific to each award. Attributes may include but are not limited to: academic achievement, financial need, and character.

Scholarship applications are available during the month of January each year. The application is electronic and can be found on the college’s website at http://coehp.uark.edu/scholarships.html. Applications must be submitted by January 31st. All current and future students are strongly encouraged to apply. For further information please call 479-575-4420 or send an email to ethogue@uark.edu.

College of Engineering

The College of Engineering awards numerous scholarships and fellowships beginning with the sophomore year to continuing students, transfer students, and graduate students. Most scholarships are based, primarily, on academic performance. However, scholarships are also awarded on the basis of financial need and diversity. Scholarships are available from both the college and its individual departments.

College scholarships are available to any engineering student while departmental scholarships are meant for students enrolled in a particular discipline.
Financial Aid and Scholarships

University of Arkansas, Fayetteville

of engineering. Students must be admitted to the University of Arkansas and accepted into the College of Engineering to qualify and receive either a college or departmental scholarship. The college has a one-step application process that allows a student to be considered for all college level scholarships and departmental scholarships.

For more information concerning scholarship and diversity opportunities, contact the College of Engineering Office of Academic & Student Affairs at 479-575-3051 or e-mail tic@uark.edu.

SPECIAL SCHOLARSHIPS AND CONDITIONS

ACT 1185
Arkansas income taxpayers who earn a minimum of $5,500 in wages and, with their dependents, reside in a bordering state in a county or parish contiguous to an Arkansas county in which a public institution of higher education is located may enroll at the University of Arkansas and receive an out-of-state tuition award under the provisions of ACT 1185 of 1995, Section 34. The availability of funds may vary each year, and the students must provide certain documentation. Please contact the Office of Academic Scholarships at 479-575-4464 for more information.

Arkansas Alumni Association Scholarships
For information on Arkansas Alumni Association, please visit http://alumni.uark.edu.

Music and Band
The Department of Music offers scholarships (both music scholarships and band scholarships) for talented students who sing or play instruments. All scholarships are based on playing ability, academic achievement, and potential contribution to music department ensembles. Scholarships are renewable for up to five years (ten semesters), as long as the student meets the conditions specified on the scholarship letter or contract.

Music and band scholarships are available to music majors and to students majoring in other areas who participate in certain ensembles. All scholarships require an audition. To set up an audition, contact the music department at 479-575-4701 or the band office at 479-575-4100.

Air Force and Army ROTC
The Air Force and Army Reserve Officer Training Corps programs offer a number of scholarship opportunities for entering freshmen and on-campus students. See the Reserve Officer Training Corps section of this catalog for detailed information.

Veterans Benefits
The University of Arkansas is approved by the Arkansas Department of Education for veterans and veterans’ beneficiaries who are working toward a degree. Veterans of recent military service, service members, members of reserve units, and the dependents of certain other servicemen may be entitled to educational assistance payments under the following programs: Title 38, Chapter 30, Montgomery GI Bill for Veterans; Title 38, Chapter 32, Veterans Educational Assistance Program (VEAP); Title 38, Chapter 35, Survivors and Dependents Education; and Title 10, Chapter 106, Montgomery GI Bill for Selective Reserves. Students must be working toward a degree and following the curriculum outline for their objectives, since only specific courses may be applied toward VA certification and graduation. Students eligible for educational benefits may contact the Office of the Registrar for further information.

Detailed information regarding stipends and housing is provided in the chapter “Reserve Officer Training Corps.”

<table>
<thead>
<tr>
<th>ARKANSAS ALUMNI ASSOCIATION SCHOLARSHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Alumni Association Endowed Scholarship</td>
</tr>
<tr>
<td>Arkansas License Plate, &quot;Roads&quot; Scholarship/Alumni Board of Directors Scholarship</td>
</tr>
<tr>
<td>Alumni Chapter Scholarships</td>
</tr>
<tr>
<td>Alumni Legacy Scholarship</td>
</tr>
</tbody>
</table>
Orientation and Registration

ORIENTATION

All new undergraduate students, both freshmen and transfer, are expected to attend an orientation session preceding their enrollment. The orientation program is designed to introduce every aspect of the university community to our students, enabling them to establish a bond with the institution and those here to support them. A significant aspect of this experience will be to provide students with information about the policies, support systems, and resources of the University, while engaging them with their advisers in the appropriate academic programs. To this end, students should complete the orientation program prepared to register for classes and ready to embark upon their academic careers. Students who attend the orientation program register during that time.

REGISTRATION

Undergraduate students, including students not declaring a major, must enroll in one of six academic units: the J. William Fulbright College of Arts and Sciences; the Dale Bumpers College of Agricultural, Food and Life Sciences; the Sam M. Walton College of Business; the College of Education and Health Professions; the College of Engineering; or the School of Architecture. Information regarding registration periods and procedures is found on the Web site of the Registrar’s Office at http://www.uark.edu/registrar/.

Registration Periods

Students must register during one of the formal registration periods. Currently enrolled students are expected to register during the priority registration held each semester for the following semester. New students (freshmen and transfers) are expected to register during orientation. New students not already registered during orientation should register during the open registration period that immediately precedes the beginning of classes each semester. There is a late registration period of five days at the beginning of fall and spring semesters and a one- or two-day late registration period at the beginning of the summer sessions, but students may find that many classes are filled.

Student Addresses

It is the responsibility of all students to maintain and correct their addresses with the University and to report any change of address promptly either in writing to the Registrar’s Office or on the Student Information System at http://www.isis.uark.edu/. Failure to do so may result in undelivered official correspondence and announcements. Emergency contact information is also required.

Important academic announcements are frequently sent to the students through University assigned e-mail accounts. Students must check this account frequently to avoid missing critical notices.

Identification Cards

Identification cards are made at orientation and at the ID Card Office during the year. Several privileges on campus require an ID card, and it can be used as a debit card for purchases at various locations throughout the campus. Part-time students are also eligible for a card.

Academic Advising

Academic advising is an active, ongoing exchange between the advisers and students, grounded in teaching and learning. Advising is based on students gaining accurate and appropriate information and direction to help make their educational experience relevant, coherent, and meaningful. It is a process that assists students in connecting with the University of Arkansas, making thoughtful decisions related to their academic experiences, and maximizing their educational and career opportunities. Quality academic advising is essential to achieving the University’s vision for a “student-centered research university serving Arkansas and the world.”

While procedures may vary among schools and colleges, all successful academic advising should include the following:

• A mutual respect between adviser and student with the student possessing final responsibility for successful completion of a degree.
• A developmental and educational process that occurs over time.
• Consideration of individual students’ interests, abilities, and needs.
• A collaborative effort to connect students to campus resources and services.
• Reasonable availability and accessibility to advisers.
• Interpretation of University of Arkansas, college, and departmental rules and courses.
• A student’s understanding of the purpose and nature of the university core courses.
• Recommendation of appropriate courses.
• A student’s understanding of and progress toward academic requirements.
• General information regarding career options and opportunities, with appropriate referrals as necessary.
• Respect for students’ ethnic and racial heritage, age, gender, culture, national origin, sexual orientation, and religion, as well as their physical, learning, and psychological abilities.
• An understanding of and adherence to laws and regulations that relate to academic advising.
• Adherence to the highest principles of ethical behavior.
The University is committed to developing each student to his or her fullest potential. To this end, programs in each college have been established to improve the academic achievement and persistence of students on academic warning and of other students in need of academic assistance. Such assistance is provided through a variety of instructional and informational services.

Arkansas State Requirements for Developmental Course Placement
Arkansas law specifies that all first-time entering freshmen enrolled in a bachelor's degree program will be placed in either college-level credit courses in English and mathematics or remedial courses in English composition, reading, and mathematics on the basis of their scores on specified tests.

• Students who score below 19 on the English section of the ACT or below 470 on the verbal score of the SAT must enroll in Remedial English 0003, which does not carry degree credit.
• Students who score below 19 on the reading section of the ACT or below 470 on the verbal score of the SAT must enroll in Developmental Reading ARSC 0013, which does not carry degree credit.
• Students who score below 19 on the mathematics section of the ACT or below 460 on the quantitative portion of the SAT must enroll in Remedial Math 0003, which does not carry degree credit. (The Mathematical Sciences Department requires higher ACT/ SAT scores for students to be placed in Math courses above MATH 0003. Please see the Course Descriptions for MATH for details)
• Students will be required to register for these courses during their first term at the University and, if necessary, in subsequent terms until passing grades have been earned in all required courses. Students must successfully complete any required developmental course in English before enrolling in freshman English. Students must successfully complete any required developmental course in mathematics before enrolling in a college-level mathematics course. Students who need further information or clarification regarding this law are encouraged to discuss this with their academic adviser or dean.

Courses That Do Not Count toward a Degree
The following courses do not count toward degree credit in any college or school ENGL 0003, MATH 0003, and ARSC 0013.

The following courses do not count toward any degree in the College of Engineering: MATH 1203 College Algebra, MATH 1213 Plane Trigonometry, MATH 1285 Pre-calculus Mathematics, and ENGL 2003 Advanced Composition.

Registration for Grades of Pass-Fail
Students in some programs may register to take certain courses on a pass-fail basis. In such cases, a mark of "CR" (passed) or a grade of “F” (failed) will be recorded.

Students in the J. William Fulbright College of Arts and Sciences, the School of Architecture, and the Dale Bumpers College of Agricultural, Food and Life Sciences are eligible to enroll for certain courses on a pass-fail basis under the following conditions:
1. That such registration be approved by the student’s adviser. (Students in Agricultural, Food and Life Sciences must also have the approval of their academic dean.)
2. That the student has attained sophomore rank or higher.
3. That the student is not on academic warning and has achieved a cumulative grade-point average of at least 2.00.
4. That such enrollment be limited to one course per semester.
5. That the total enrollment on a pass-fail basis be limited to no more than 18 hours in any student's degree program.

6. That the courses involved are not part of the student's major and are not specifically required as part of the student's degree program.
7. Normally, registration for pass-fail credit will be completed prior to the final date for changing registration by adding a course.

Grades for students enrolled on a pass-fail basis will be reported on final grade rosters in the usual manner. The dean's office will review each report and will authorize the registrar to record “CR” or “F” on the student's official academic record, as appropriate. The “CR” marks will not be counted in grade point averages but will increment hours earned; the “F” grade will be counted in the grade point average.

Students in the College of Education and Health Professions may enroll in courses on a pass-fail basis under the same conditions but only in courses offered by the Fulbright College of Arts and Sciences and the College of Education and Health Professions. Walton College of Business and College of Engineering students may not take courses on a pass-fail basis.

Undeclared Major
Degree-seeking students who are undecided about their choice of a major field of study will be considered to have an undeclared major. However, all undergraduate students must enroll in one of the colleges or schools. Each of these academic units makes provisions for undeclared majors, and each has its own rules concerning the point at which a student must declare a major. Again, academic advisers will be of great assistance in determining the college or school in which a student with an undeclared major should enroll.

Walton College of Business students have the pre-business classification with an intended major until they complete specific lower-division courses, a process that normally takes four semesters. All engineering students are classified as pre-engineering students until they have satisfied the pre-professional program, which is normally completed during the freshman year.

Registration for Audit
Students wishing to audit a class should contact the instructor teaching that class and request permission to audit. If the instructor approves the audit, the academic department will register the student in that class as an audit. Auditing of a class is allowed on a space-available basis, and a student must pay fees for that class. The instructor shall notify the student of the requirements for receiving the mark of “AU” for the course being audited. The instructor and the student's dean may drop a student from a course being audited if the student is not satisfying the requirements specified by the instructor. The student is to be notified if this action is taken. The only grade or mark that may be awarded is “AU.”

Adding and Dropping Courses
A currently enrolled student who has registered during the advance registration period should make any necessary or desired schedule adjustments such as adding or dropping courses or changing course sections during the schedule-adjustment period of the same semester. Students may also add or drop courses during the first five class days of a fall or spring semester. Students who drop classes by the fifth day of classes in the fall and spring semesters will have their fees adjusted. (Refer to the Treasurer's Office Web site for summer dates and other sessions). Fee adjustments are not done for classes dropped after the first week of class. Drops and withdrawals are two different functions. In a drop process, the student remains enrolled. The result of the withdrawal process is that the student is no longer enrolled for the term. The two functions have different fee adjustment policies. Fee adjustment deadlines for official withdrawal are noted on the Treasurer's Web site.

A student may drop a full-semester course during the first 10 class days of a fall or spring semester without having the drop shown on the official academic record. After the first 10 class days, and before the drop deadline of the semester, a student may drop a course, but a mark of "W," indicating the drop,
Orientation and Registration

Withdrawal from Registration

Withdrawal from the University means withdrawing from all classes that have not been completed up to that time. A student who leaves the University voluntarily before the end of the fall or spring semester must complete an exit interview and then withdraw from all classes on the student registration system or notify the Office of the Registrar in writing. Withdrawal may occur anytime during the semester through the last day of classes. Withdrawal deadlines for summer sessions are listed on the summer calendar located on the Web site of the Registrar's Office; summer withdrawals do not require an exit interview. Students who do not withdraw officially from a class they fail to complete will receive an "F" in that class. Students with holds on their registration should contact the Office of the Registrar for assistance in processing their official withdrawal from the University.

The deadline for a full fee adjustment for an official withdrawal is the day before the start of classes for that term. After that date a $45.00 withdrawal fee will be charged, and a percentage of the fees will be refunded. Refer to the Web site of the Treasurer's Office for the deadlines and percentages.

Course Loads

While University offices and services typically recognize the full-time status of students who have enrolled for a minimum of 12 semester hours, students should bear in mind that this minimum number of hours is insufficient to allow them to complete a four-year degree program in eight academic semesters (four years). Since most University degree programs require a minimum of 124 semester hours, or 31 hours per year, a student should earn 15 to 16 hours per semester to complete most degree programs in four years (eight semesters). The University offers degree-completion plans; see the Web site of the Registrar's Office or the Academic Regulation section of this catalog.

Number of Hours Allowed per Semester

1. Students who wish to carry more than 18 hours per semester must first obtain the permission of their academic deans.
2. Students who wish to carry more than 21 hours per semester must first request and receive favorable action from the Academic Standards Committee.
3. Students on academic warning may not carry more than 12 hours per semester.
4. Students on academic suspension who choose the limited enrollment option may not carry more that 9 hours for that semester unless permission has been requested and granted by the Academic Standards Committee.
5. Students who wish to exceed the normal summer school load must have the approval of their academic deans to take seven hours in five- or six-week sessions or 13 to 14 hours in 10- or 12-week sessions. Students who wish to take more than seven hours in one five- or six-week session or more than 14 hours in one 10- or 12-week session must first receive favorable action from the Academic Standards Committee.
6. For disabled students, less than 12 hours may be certified as full-time with the approval of the student's dean and the concurrence of a physician or a licensed examiner.

### STUDENT STANDING

Definitions of undergraduate student classification are as follows:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Course Hours Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Sophomore</td>
<td>&gt;29 but &lt;60</td>
</tr>
<tr>
<td>Junior</td>
<td>&gt;59 but &lt;90</td>
</tr>
<tr>
<td>Senior</td>
<td>≥ 90</td>
</tr>
</tbody>
</table>
Educational expenses will vary according to a student’s course of study, personal needs, and place of residence. All fees, charges, and costs quoted in this catalog are subject to change without notice. A survey tool for tuition and fee estimation is available at http://treasurer.uark.edu/Tuition.asp?pagestate=Estimate.

Financial obligations to the University must be satisfied by the established deadlines. Payment may be made at the University Cashier’s Office in the lobby of Silas H. Hunt Hall by cash, personal check, money order, certified check, or VISA, MasterCard, or Discover credit cards. Payment may also be made online at https://isis.uark.edu/.

Acceptance of payment for fees does not imply academic acceptance to the University.

ESTIMATED NECESSARY EXPENSES PER SEMESTER

Estimates of necessary expenses for one semester of the 2008-2009 academic year for a typical undergraduate student taking 15 credit hours per semester at the University of Arkansas:

<table>
<thead>
<tr>
<th></th>
<th>Undergraduate Resident</th>
<th>Undergraduate Non-Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition(^1)</td>
<td>$2,505.00 ($167.00/hr)</td>
<td>$6,943.65 ($462.91/hr)</td>
</tr>
<tr>
<td>University Fees(^2)</td>
<td>524.55</td>
<td>524.55</td>
</tr>
<tr>
<td>TELE Fee(^3)</td>
<td>169.95</td>
<td>169.95</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td>$3,199.50</td>
<td>$7,638.15</td>
</tr>
<tr>
<td>Room and Board(^4)</td>
<td>$3,711.00</td>
<td>$3,711.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$6,910.50</td>
<td>$11,349.15</td>
</tr>
</tbody>
</table>

Other variable costs per year:

*Books, supplies, and lab fees $1,008.00
*Personal expenses and travel $3,632.00

When paying tuition, room and board, and associated fees, anticipated financial aid for a current semester may be deducted when it is listed as anticipated aid on ISIS.

The latest information regarding costs and other aspects of University life may be obtained by calling or writing the Office of Admissions, 200 Hunt Hall, University of Arkansas, Fayetteville, AR 72701. In Arkansas call 1-800-377-8632; from outside of Arkansas call (479) 575-5346.

TUITION FEES

Students classified as “in-state” for fee payment purposes are assessed tuition. Students classified as “out-of-state” for fee payment purposes are assessed additional non-resident tuition.

Official policies of the University of Arkansas Board of Trustees provide the basis for classifying students as either “in-state” or “out-of-state” for purposes of paying student fees. Board policies relating to residency status for fee payment purposes are included at the end of this chapter of the catalog. Out-of-state students who question their residency classification are encouraged to contact the Registrar’s Office, 146 Silas H. Hunt Hall, for more information about residency classification review procedures.

Academic Year

Undergraduate students are assessed tuition of $167.00 per credit hour. Students with out-of-state residency status are assessed additional non-resident tuition of $295.91 per credit hour.

Undergraduate students enrolled in the Walton College of Business courses are charged differential tuition of $25.05 per credit hour.

Undergraduate students enrolled in the College of Architecture are charged differential tuition of $8.35 per credit hour.

1. Students enrolled in College of Business courses are charged differential tuition at $25.05 per credit hour more than standard undergraduate, in-state tuition. College of Architecture students are charged a differential tuition of $8.35.

2. University fees include the following:
   - Health, physical education and recreation fee 49.20
   - Student Health Center debt fee 13.05
   - Enhanced Learning Center 15.00
   - the following student-initiated and student-approved fees:
     - Student Activity fee 13.65
     - Student Health fee, calculated at $7.11/credit hour, 106.65
     - Associated Student Government fee 10.35
     - Media fee 10.35
     - Arkansas Union fee, calculated at $3.14/credit hour, 47.10
     - Fine Arts Activity fee 4.05
     - Technology fees are calculated at $2.24/credit hour 33.60
     - Transit fee 36.15
     - Network Infrastructure and Data Systems fee ($8.84/credit hour) 132.60
     - Safe Ride fee 3.30
     - Distinguished Lecture fee 6.75
     - Student Readership fee 4.50
     - Facilities Fee, calculated at $2.00/credit hours 30.00
     - Concert Fee 8.25

3. Teaching Equipment and Laboratory Enhancement (TELE) fee. This figure reflects the per credit hour undergraduate fee for the College of Arts and Sciences. To obtain the per credit hour undergraduate fee for all colleges, view the Tuition Rate Schedule at http://treasurer.uark.edu/Tuition.asp?pagestate=Estimate.

4. Weighted average expenses for living in a residence hall, double occupancy, with an unlimited meal plan. Actual room and board fees vary from $3,214.00 to $4,137.00 per semester.
TEACHING EQUIPMENT AND LABORATORY ENHANCEMENT FEES

These fees provide and maintain state-of-the-art classroom equipment and instructional laboratory equipment. These fees vary, based upon the student’s college of enrollment.

During the regular fall, spring and summer academic semesters, these fees are assessed on a per credit hour basis (see chart below).

<table>
<thead>
<tr>
<th>College or School</th>
<th>Per Credit Hour Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural, Food and Life Sciences, Bumpers College of</td>
<td>$ 8.74</td>
</tr>
<tr>
<td>Architecture, School of</td>
<td>18.36</td>
</tr>
<tr>
<td>Arts and Sciences, Fulbright College of</td>
<td>11.33</td>
</tr>
<tr>
<td>Business, Walton College of</td>
<td>18.87</td>
</tr>
<tr>
<td>Education and Health Professions</td>
<td>9.00</td>
</tr>
<tr>
<td>Engineering</td>
<td>27.33</td>
</tr>
</tbody>
</table>

FEES*

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Amount**</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARKANSAS UNION FEE</td>
<td>Supports the renovation, expansion, and partial operational costs of the Union</td>
<td>3.14</td>
</tr>
<tr>
<td>DISTINGUISHED LECTURE FEE</td>
<td>Pays for two speakers, one in the spring semester and one in the fall. Speakers represent 1) Arts and Entertainment Industry or 2) World Leader or Newsmaker. One speaker from each group is invited each year. Speakers are chosen by the Distinguished Lectures Committee, which is represented by students, staff, and faculty. Contact ASG for information on how to become a member of the committee. The lectures or presentations are free to students via the fee.</td>
<td>.45</td>
</tr>
<tr>
<td>ENHANCED LEARNING CENTER</td>
<td>Provides academic support, including individual and group tutoring and study skills workshops.</td>
<td>1.00</td>
</tr>
<tr>
<td>FACILITIES FEE</td>
<td>Provides support dedicated specifically to campus facilities needs, including major projects and deferred maintenance.</td>
<td>2.00</td>
</tr>
<tr>
<td>FINE ARTS ACTIVITY FEE</td>
<td>Supports cultural events free of charge, or with minimal charge, to students. Events include presentations in music, theater, drama, opera, visual arts, creative writing, and public speaking. Most are held on campus or at the Walton Arts Center. Fulbright College allocates the proceeds of the fee to support cultural programming.</td>
<td>.27</td>
</tr>
<tr>
<td>HEALTH, PHYSICAL EDUCATION, AND RECREATION FEE</td>
<td>Board of Trustees mandated fee supporting various physical education activities including intramural programs. Students are allowed access to gyms, the pool, fitness center, sauna, racquetball courts, and the indoor track.</td>
<td>3.28</td>
</tr>
<tr>
<td>HEADLINER CONCERTS FEE</td>
<td>Allows two major concerts, free to UA students, each academic year.</td>
<td>.55</td>
</tr>
<tr>
<td>MEDIA FEE</td>
<td>The University’s student publications, specifically the Arkansas Traveler newspaper and the Razorback yearbook, are partially funded by the media fee. Students reserving a copy are provided with a Razorback yearbook.</td>
<td>.69</td>
</tr>
<tr>
<td>NETWORK INFRASTRUCTURE AND DATA SYSTEMS FEE</td>
<td>Provides support for the development and operation of the campus network, including electronic equipment, servers with software, and cabling. The network systems serve computer labs, academic and administrative buildings, residence halls and off-campus access facilities. Data systems will enable Web-based access to the University’s information systems for students, faculty, and staff. Also provides support for upgrades and replacement of the student information system.</td>
<td>8.84</td>
</tr>
<tr>
<td>RAZORBACK READERSHIP FEE</td>
<td>Provides national and local newspapers on campus, free for students.</td>
<td>.30</td>
</tr>
<tr>
<td>SAFE RIDE FEE</td>
<td>Safe Ride: Operates the Associated Student Government’s Safe-Ride Program, offering UA students (within the Fayetteville city limits) a free ride home Wednesday through Saturday, 10:30 p.m. to 3 a.m. This fee also funds the Night Owl Services on Monday and Tuesday evenings from 10 p.m. to midnight. See the Safe Ride Web site for more information at <a href="http://asg.uark.edu">http://asg.uark.edu</a>.</td>
<td>.22</td>
</tr>
<tr>
<td>STUDENT ACTIVITY FEE (UNIVERSITY PROGRAMS)</td>
<td>Funds University Programs. Students are admitted free to numerous programs presented throughout the year, except for major, promoted concerts.</td>
<td>.91</td>
</tr>
<tr>
<td>STUDENT ACTIVITY FEE (ASSOCIATED STUDENT GOVERNMENT FEE)</td>
<td>Allocated to registered student organizations</td>
<td>.69</td>
</tr>
<tr>
<td>STUDENT HEALTH DEBT FEE</td>
<td>Pays the debt service for the construction of the new Student Health Center.</td>
<td>.87</td>
</tr>
<tr>
<td>STUDENT HEALTH FEE</td>
<td>Covers the cost of office visits by physicians, registered nurses, and other health professionals, medical evaluations, women's health visits, and counseling and psychological service visits. Other services covered by the health fee include health promotion and education and 24-hour emergency care for counseling and psychological needs.</td>
<td>7.11</td>
</tr>
<tr>
<td>TECHNOLOGY FEE</td>
<td>Provides improvements in computer access for students: increasing dial-up ports, network access, lab support, training programs, and improvements in computing facilities.</td>
<td>2.24</td>
</tr>
<tr>
<td>TRANSIT FEE</td>
<td>Helps fund the Razorback Bus Transit System, which services the campus and neighboring community year round.</td>
<td>2.41</td>
</tr>
</tbody>
</table>

* Assessed each academic semester for which the student is enrolled: fall, spring, and summer
**per credit hour
### COLLEGE/COURSE SPECIFIC FEES

**COLLEGE OF AGRICULTURAL, FOOD AND LIFE SCIENCES**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel Studies Laboratory Fees</td>
<td>$15.00/credit hour</td>
</tr>
<tr>
<td>Equine Behavior &amp; Training ANSC 2304</td>
<td>25.00/credit hour</td>
</tr>
<tr>
<td>Fifth-year Internship Fee (M.A.T.) AGED 575V</td>
<td>$100.00/semester</td>
</tr>
<tr>
<td>Horticulture Laboratory Fee HORT 3113</td>
<td>3.50/credit hour</td>
</tr>
<tr>
<td>Infant Development Center and Nursery School Fee HESC 2402 and 2401L, HESC 3402 and 3401L</td>
<td>15.00/credit hour</td>
</tr>
<tr>
<td>Interior Design Fee HESC 1034, 1044, 2805, 2815, 3805, 3815, 4805, 4815</td>
<td>15.00/credit hour</td>
</tr>
<tr>
<td>Teaching Internship Fee AGED 475V</td>
<td>$65.00/semester</td>
</tr>
</tbody>
</table>

**COLLEGE OF ARCHITECTURE**

<table>
<thead>
<tr>
<th>Program</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Study Fee (Architecture and Landscape Architecture Academic Plans)</td>
<td>$4,262.29*</td>
</tr>
</tbody>
</table>

**COLLEGE OF ARTS AND SCIENCES**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fifth-year Internship Fee (M.A.T.) ARED 476V, MUED 451V</td>
<td>$100.00/semester</td>
</tr>
</tbody>
</table>

**WALTON COLLEGE OF BUSINESS**

<table>
<thead>
<tr>
<th>Program</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Competency WCOB 1120</td>
<td>$54.21/semester</td>
</tr>
</tbody>
</table>

**COLLEGE OF EDUCATION AND HEALTH PROFESSIONS**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSE Fourth-year Student Teaching Fee (CIED 4173, CATE 400V/PHED 407V)</td>
<td>$100.00/semester</td>
</tr>
<tr>
<td>Counseling Practicum CNED 5343, CNED 6711</td>
<td>25.00/credit hour</td>
</tr>
<tr>
<td>Counseling Internship Fee CNED 574V CNED 674V section 1</td>
<td>25.00/credit hour</td>
</tr>
<tr>
<td>Curriculum Instruction Education Internship Fee CIED 3113, CIED 4113</td>
<td>25.00/credit hour</td>
</tr>
<tr>
<td>Fifth-year Internship Fee (M.A.T.) CIED 508V, CIED 514V, CIED 528V, PHED 507V, VOED 5004, VOED 5016</td>
<td>$100.00/semester</td>
</tr>
<tr>
<td>Internship for Communication Disorders CDIS 578V</td>
<td>$100.00/semester</td>
</tr>
<tr>
<td>Internship Program in Education Administration EDAD 574V, EDAD 674V</td>
<td>$25.00/semester</td>
</tr>
<tr>
<td>Malpractice liability insurance NURS 3314, 4242, 5111 and 5225</td>
<td>$13.00/semester</td>
</tr>
<tr>
<td>Nursing Test Fee</td>
<td>$75.00/semester</td>
</tr>
<tr>
<td>Off-Campus Practicum: Public School Site CDIS 548V</td>
<td>$50.00/semester</td>
</tr>
<tr>
<td>PEAC 1481 Beginning Archery</td>
<td>5.00/credit hour</td>
</tr>
<tr>
<td>PEAC 1811 Beginning Canoeing</td>
<td>25.00/credit hour</td>
</tr>
<tr>
<td>PEAC 1831 Beginning Scuba Diving</td>
<td>$130.00/credit hour</td>
</tr>
<tr>
<td>PHED 2002 Teaching and Leading Outdoor Recreation and Experimental Activities</td>
<td>$10.00/credit hour</td>
</tr>
<tr>
<td>PHED 407V Student Teaching Supervision</td>
<td>$75.00/semester</td>
</tr>
<tr>
<td>PHED 407V Student Teaching Supervision</td>
<td>$75.00/semester</td>
</tr>
<tr>
<td>RECR 1023 Recreation and Natural Resources</td>
<td>$6.67/credit hour</td>
</tr>
<tr>
<td>Special Education Lab fee, Practicum CIED 532V</td>
<td>$25.00/credit hour</td>
</tr>
</tbody>
</table>

**COLLEGE OF ENGINEERING**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEEG 2100 course fee, computer aided design (CAD) competency</td>
<td>$50.00/semester</td>
</tr>
</tbody>
</table>

*due initial Semester of enrollment, paid in semester installments, and retroactive to 8/15/2003

### PROGRAM/SERVICE SPECIFIC FEES

**Program/Service Specific Fees**

<table>
<thead>
<tr>
<th>Program/Service</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Placement Test (ELPT)</td>
<td>$10.00</td>
</tr>
<tr>
<td>Graduation fees:</td>
<td></td>
</tr>
<tr>
<td>Certificate</td>
<td>30.00</td>
</tr>
<tr>
<td>Baccalaureate Degree</td>
<td>25.00</td>
</tr>
<tr>
<td>Reapplication for Graduation</td>
<td>5.00</td>
</tr>
<tr>
<td>I.D. Card</td>
<td></td>
</tr>
<tr>
<td>First card</td>
<td>22.00</td>
</tr>
<tr>
<td>Each replacement card</td>
<td>18.00</td>
</tr>
<tr>
<td>Infant Development Center for UA Student Families: (40 hrs/week)</td>
<td></td>
</tr>
<tr>
<td>Materials per semester</td>
<td>25.00</td>
</tr>
<tr>
<td>Infants and Toddlers per week</td>
<td>200.00</td>
</tr>
<tr>
<td>Installment Payment Plan</td>
<td>25.00</td>
</tr>
<tr>
<td>International student (non-immigrant) application fee</td>
<td>50.00</td>
</tr>
<tr>
<td>International student per semester service fee (non-immigrants)</td>
<td>75.75</td>
</tr>
<tr>
<td>Sponsored Student Management Fee</td>
<td>275.00</td>
</tr>
<tr>
<td>International Visiting Student Program Fee</td>
<td>250.00</td>
</tr>
<tr>
<td>Late payment:</td>
<td></td>
</tr>
<tr>
<td>On fifth day of classes if balance has not been paid</td>
<td>50.00</td>
</tr>
<tr>
<td>Additional fee at Nov. 30, April 30, and July 31 for fall, spring, and summer, respectively, if payment has not been made</td>
<td>50.00</td>
</tr>
<tr>
<td>Mandatory international student health insurance</td>
<td>1030.00 per year</td>
</tr>
<tr>
<td>New student orientation:</td>
<td></td>
</tr>
<tr>
<td>First Year Experience (New Admits Only)</td>
<td>100.00</td>
</tr>
<tr>
<td>Parents</td>
<td>50.00</td>
</tr>
<tr>
<td>Nursery School in Human Environmental Sciences</td>
<td>800.00 per semester</td>
</tr>
<tr>
<td>Parking Permit (per vehicle)</td>
<td></td>
</tr>
<tr>
<td>Remote</td>
<td>45.07</td>
</tr>
<tr>
<td>Student</td>
<td>67.01</td>
</tr>
<tr>
<td>Resident Reserved</td>
<td>434.42</td>
</tr>
<tr>
<td>Parking Garage Reserved</td>
<td>592.14</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>45.07</td>
</tr>
<tr>
<td>Scooter</td>
<td>6.10</td>
</tr>
<tr>
<td>Residence Hall nonrefundable application fee (new students only)</td>
<td>35.00</td>
</tr>
<tr>
<td>Study Abroad Service fee</td>
<td>10.00 per credit hour</td>
</tr>
<tr>
<td>Test Handling Fee</td>
<td>15.00</td>
</tr>
<tr>
<td>Transcript Fee - Official Copy</td>
<td>5.00</td>
</tr>
<tr>
<td>Miller Analogies Test (MAT)</td>
<td>70.00</td>
</tr>
<tr>
<td>Advanced Composition Exam Fee</td>
<td>20.00</td>
</tr>
<tr>
<td>Undergraduate application for admission</td>
<td>40.00</td>
</tr>
<tr>
<td>Additional late application fee</td>
<td>25.00</td>
</tr>
<tr>
<td>Withdrawal from the University fee</td>
<td>45.00</td>
</tr>
</tbody>
</table>

### Summer Sessions

Undergraduate students are assessed tuition fees of $167.00 per credit hour. Undergraduate students with out-of-state residency status are assessed additional non-resident tuition of $295.91 per credit hour.
FEES AND COST ESTIMATES

Academic Semesters and Summer Sessions

Students who officially withdraw (dropping ALL classes that have not been completed up to that time) from the University of Arkansas during the regular fall or spring semesters receive a cancellation of fees (see chart below), less an Administrative Withdrawal fee of $45. Students who officially withdraw from a summer session or who drop classes in the summer also receive a cancellation of fees (see chart below).

<table>
<thead>
<tr>
<th>Adjustment Percentage</th>
<th>If withdrawn</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>before the first 10% of days in the semester/session</td>
</tr>
<tr>
<td>90%</td>
<td>through the first 10% of days in the semester/session</td>
</tr>
<tr>
<td>80%</td>
<td>through the second 10% of days in the semester/session</td>
</tr>
<tr>
<td>70%</td>
<td>through the third 10% of days in the semester/session</td>
</tr>
<tr>
<td>60%</td>
<td>through the fourth 10% of days in the semester/session</td>
</tr>
<tr>
<td>50%</td>
<td>through the fifth 10% of days in the semester/session</td>
</tr>
<tr>
<td>40%</td>
<td>through the sixth 10% of days in the semester/session</td>
</tr>
</tbody>
</table>

Billing Statements

Students who pre-register for a semester will be mailed an invoice approximately three weeks prior to the first day of classes. Invoices will be mailed to the student’s permanent address unless a separate billing address has been established on ISIS.

It is the responsibility of the student to ensure a correct billing address on the Student Information System (See Addresses, below). The late fee will not be waived because an invoice was not received.

Late Fees

Students who register for the fall 2008 and spring 2009 semesters are required to pay all charges by the posted payment deadline. Students who fail to pay all charges or who fail to execute an installment payment plan by the deadline may be assessed a late payment fee equal to the outstanding balance, not to exceed $50.00.

Any student with an outstanding balance, to include registration-related fees and/or housing charges, by the last payment deadline will be assessed an additional late payment fee equal to the outstanding balance, not to exceed $50.00.

Disbursement of Refund Checks

Disbursement of refund checks due to overpayments by scholarships, loans, and/or grants will be mailed approximately five (5) days prior to the start of classes. Checks will be mailed to the student’s permanent address unless a check address has been established on ISIS.

Addresses

Students may create a billing address, which will be used specifically for billing statements, and a check address, which will be used specifically for overpayment checks. These addresses may be created in addition to the local and permanent addresses. If a billing or check address is not created, the default address will be the permanent address. The student may change their address on the ISIS Web site in the Student Center.

STUDENTS CALLED INTO ACTIVE MILITARY SERVICE

When a student or student’s spouse is activated for full-time military service during a time of national crisis and is required to cease attending the University of Arkansas without completing and receiving a grade in one (1) or more courses, they shall receive compensation for the resulting monetary loss as provided by Fayetteville Policy 504.2. To be eligible for the compensation, the student must provide, prior to activation or deployment for military service, an original or official copy of the military activation or deployment orders to the Registrar. A student whose spouse is a service member shall provide proof of registration with the Defense Enrollment Eligibility Reporting System (DEERS) of the Department of the Defense that establishes that dependent children reside in the household of the student and the service member. Upon leaving the University of Arkansas because of active duty or deployment, the student may choose one of three compensatory options. The student may officially withdraw and receive full adjustment and refund of tuition and non-consumable fees for the term involved; the student can remain enrolled and arrange for a mark of “Incomplete” for each class and finish the courses twelve (12) months after deactivation; or the student may receive free tuition and fees for one (1) semester after deactivation. For more detailed information, refer to Fayetteville Policy 504.2

WAIVER OF TUITION AND FEES

FOR SENIOR CITIZENS

Arkansas residents who are 60 years of age or older and show proper proof of age may choose to have tuition and fees waived under the senior citizen waiver of fees. Admission and enrollment under these conditions is open only on a “space available” basis in existing classes and students choosing to use this waiver may not register until just prior to the beginning of the term.

ROOM AND BOARD

University Housing

(Rates are subject to change)

(Rates are subject to change)

Single freshmen under 21 years of age are required to live in University residence halls, fraternity or sorority houses, or with their parents, unless permission to live off-campus has been obtained through University Housing. Permission to reside off-campus is granted on a semester basis and must be obtained prior to enrolling or prior to the semester in which off-campus residency is desired.

Costs of room and board in University residence halls for one semester during the 2008-2009 academic year range from $3,214.00 to $4,437.00 for double occupancy rooms and with an unlimited meal plan. Single rooms are additional and are available on a first-come, first-serve basis.

Housing for married students, students with family status, nontraditional, graduate, and law students is limited and requires early application.

Summer rates for room in University residence halls during summer sessions are $28.38 per day for a single. Charges start on the requested move-in day and run through the date of check-out.

Specific questions concerning on-campus living or meal plans may be directed to University Housing (479) 575-3951. Specific questions concerning sorority and fraternity living may be directed to the Office of Greek Affairs (479) 575-5001.
Off-Campus Housing

Students eligible to live off-campus may contact local real estate offices for rental information and availability.

OTHER GENERAL FEE INFORMATION

Checks tendered to the University are deposited immediately. The University does not accept postdated checks. Checks returned for "insufficient funds" (NSF checks) are generally presented for payment only once. Each check returned by a bank for any reason will be assessed a returned check fee. The University may, at its discretion, verify available bank funds for any checks written for payment of indebtedness before accepting a check.

The University of Arkansas reserves the right to withhold transcripts or priority registration privileges, to refuse registration, and to withhold diplomas for students or former students who have not fulfilled their financial obligations to the University. These services may also be denied students or former students who fail to comply with the rules governing the audit of student organization accounts or to return property entrusted to them.

Requests for exceptions to University's fees, charges, and refund policies must be made in writing. Instructions for submitting requests for exceptions to the various fees, charges, and refund policies of the University may be obtained as follows:

- For residence life and dining services fees, charges, and refund policies contact University Housing, Attention: Assistant Director for Business, Hotz Hall, 9th floor, (479) 575-3951.
- For parking services fees, charges, and refund policies contact: Parking and Transit, Administrative Services Building, 155 Razorback Road, (479) 575-3507.
- For other fees, charges, and refunds, contact the Treasurer's Office, 215 Administration Building, Attention: Treasurer, (479) 575-5651.

Students receiving financial aid are strongly encouraged to have sufficient personal funds available to purchase books and to meet necessary expenses for at least one month at the start of school as some aid funds may not be available for disbursement.

Students are allowed to have automobiles at the University, although parking is quite limited. There is a parking permit and registration fee ranging from $45.07 to $592.14 for each vehicle, depending upon the parking option selected.

STUDENT RESIDENCE STATUS FOR TUITION AND FEE PURPOSES

Board Policy 520.8 (January 18, 1985, revised)

Determination of Residence Status

1. Purpose

The purpose of these regulations is to enable the administrative officers of the University of Arkansas to classify students for the purpose of paying student fees, as either "in-state" or "out-of-state," so as to accord fairness and equity to the students of the University and to the public that provides support for the educational services provided by the University.

2. Initial Classifications

   a. A student shall be admitted to the University in an "in-state" or "out-of-state" status for university fee purposes, as established under these regulations.
   
   Except as otherwise provided under these regulations, a student classified as "in-state" for university fee purposes at the time of admission must have established a bona fide domicile in Arkansas and must have resided continuously in this state in that bona fide domiciliary status for at least six consecutive months prior to the beginning of the term or semester for which fees are paid.
   
   b. A bona fide domicile is a home of apparent true, fixed, and permanent nature, a place of actual residing for all purposes of living that may be distinguished from a temporary sojourn in this state as a student. The person claiming domicile in Arkansas must provide evidence of permanent connection with the State of Arkansas and demonstrate the expectation of remaining in this state beyond graduation. For purposes of implementing these policies, the Administration is directed to articulate standards that will be applied in making the determination of residence.
   
   c. Except as otherwise provided under these regulations, the domicile of an adult (18 years of age or older) or emancipated minor student shall be determined on the basis of his or her own domicile.
   
   d. Except as otherwise provided under these regulations, the domicile and residence of an unemancipated minor student (less than 18 years of age) or an unmarried dependent who has not attained the age of 23 is legally that of the parents or surviving parent; or such other person legally standing in the place of a parent to the student and with whom the student in fact makes his or her home and who has been making substantial contributions to the support of the student for at least six consecutive months prior to the term or semester for which the fees are paid.
   
   e. A student who cannot satisfy the criteria for Arkansas domicile and residence will be classified as an "out-of-state" student and will pay fees and tuition accordingly. The student on a temporary visa will be classified as a foreign student and will pay non-resident tuition and fees. A student who has been granted a permanent visa and has been domiciled in Arkansas for six consecutive months following receipt of the permanent visa shall be classified as an Arkansas resident for fee purposes.
   
   f. The responsibility for registering under a proper classification for student fee purposes is placed upon the student. It is the duty of each student at each time of registration to call any question about residency classification status to the attention of the campus classification review officer in a timely fashion in order that the question may be settled (see 4. Procedures).
   
   g. The six-month period required in paragraph A of these regulations may be waived for persons, their spouse, and their unmarried children who have not yet attained the age of 23 (dependents are the spouse and unmarried children who are legal dependents as defined by the IRS) and who move to Arkansas with attendance at the University only a by-product of the primary purpose of establishing domicile in this state.
   
   h. An unmarried student who has not reached the age of 23 years having one parent residing in Arkansas (for at least six consecutive months immediately prior to the beginning of the term or semester in which the fees are to be paid) may be considered an "in-state" student for fee purposes, even if that student resided outside the state with the other parent before coming to Arkansas to attend the University.
   
   i. Marriage is recognized as emancipation for both females and males.
   
   j. The spouse of a person continuously domiciled in Arkansas (for at least six consecutive months immediately prior to the beginning of the term or semester in which the fees are to be paid) upon request shall be classified as "in-state" for fee purposes.

3. Reclassifications

   a. The initial classification of a student will not prejudice a different classification for following terms or semesters. However, a student’s...
prior domicile is assumed to continue until he or she clearly establishes a new domicile in Arkansas (see #4 below).

b. A student previously classified as “out-of-state” may be reclassified as “in-state” for fee purposes if he or she has established a bona fide domicile in Arkansas and has resided continuously in this state in that bona fide domiciliary status for at least six consecutive months prior to his or her reclassification by the University. In order for an adult or an emancipated minor to establish a bona fide domicile in Arkansas for fee purposes, he or she must have left the parental home, must have established in this state a home of a permanent character as manifested objectively by good faith acts, and must have the expectation of remaining in this state beyond graduation. The single fact of presence in Arkansas for at least six months of attendance as a student enrolled in the University of Arkansas, or any other educational institution, neither constitutes nor necessarily precludes reclassification as one domiciled in Arkansas, but will be a factor to be considered.

4. Procedures

a. A student shall have the burden of establishing any claim that he or she is entitled to be treated as “in-state” for fee purposes. Persuasive evidence to that effect must be presented in writing and verified under oath by the student. Mere claims of local domicile and duration of stay are of little weight. A student who knowingly gives erroneous information in an attempt to evade the payment of “out-of-state” fees may be subject to dismissal from the University.

b. All disputed classifications for student fee purposes, whether at initial enrollment or subsequent enrollments, and all disputed reclassifications will be decided initially on each campus by a classification review officer designated by each Chancellor.

c. The Chancellor of each campus will designate a campus classification appeal officer to receive petitions from decisions made by the campus classification review officer. Each campus classification appeal officer may, in his or her discretion, make investigations, receive evidence, and conduct informal hearings. After considering the case, the campus classification appeal officer will render a decision and notify the affected student of the decision in writing. Any decision of the campus classification appeal officer may be appealed to the Vice President for Academic Affairs of the University of Arkansas System, who shall recommend final disposition to the President of the University.

d. Written notice of the appeals procedure will be provided to each student raising a question about his or her status with the campus residency classification review officer.

e. Determination of domicile will be based on a review of all pertinent facts, evidence, and circumstances that collectively show, in an objective and clear manner, the actual domicile of the student.

NOTE: In implementing these policies, it is presumed that dependent students who are classified as non-residents based upon parental/guardian domicile outside of Arkansas do not acquire Arkansas residency under Board of Trustees Policy 520.8 unless and until their parent(s)/guardian(s) have established a domicile in Arkansas, or the student has left the parental home and established a domicile in Arkansas evidenced by proof that he or she has established a home of a permanent character as manifested objectively by good faith acts, resided in Arkansas in bona fide domiciliary status for at least six consecutive months prior to his or her reclassification as an Arkansas resident, and demonstrates the expectation of remaining in this state beyond graduation.

Reclassification Deadlines

Students who have established a bona fide domicile in Arkansas following initial classification as a non-resident must request reclassification if they want their status recognized for fee purposes. Applications and appropriate documentation must be received by the Office of the Registrar no later than the fifth class day (second class day of a summer session) of the term for which in-state fee assessment is requested. Applications received after the deadline will be considered for the next term. All fees are to be paid by published due dates. Students who receive a favorable decision after payment will be provided a refund of out-of-state fees paid. Please direct questions about residence classification review procedures to the Office of the Registrar, 146 Silas H. Hunt Hall.

Resident Status of Native Americans

(Board Policy 520.1, “Waiver of Non-Resident Tuition for Native Americans.”)

Native American people in other states belonging to tribes that formerly lived in Arkansas before relocation, and whose names are on the rolls in tribal headquarters, shall be classified as in-state students of Arkansas for tuition and fee purposes, on all campuses of the University of Arkansas. Tribes so identified include the Caddo, Cherokee, Chickasaw, Choctaw, Creek, Delaware, Kickapoo, Osage, Peoria, Quapaw, Shawnee, and Tunica.

Resident Status of Members of the Armed Forces and Their Dependents

(Board Policy 520.7, “Tuition and Fee for Members of Armed Forces and Dependents.”)

Effective January 1, 1975, members of the Armed Forces who are stationed in the State of Arkansas pursuant to military orders, and their unemancipated dependents, shall be entitled to classification as in-state students for fee purposes. This provision is forfeited if the military person does not return to Arkansas within twelve months after separation, discharge, or retirement from active duty.

Persons continuously domiciled in Arkansas for at least 12 consecutive months who enter active military service from this state and who maintain Arkansas as the permanent home of record while on active military duty, and their dependents (the spouse and unmarried children who are legal dependents of the military person as defined by the IRS), shall be entitled to classification as in-state students for fee purposes. This provision is forfeited if the military person does not return to Arkansas within twelve months after separation, discharge, or retirement from active duty.

Persons serving in active military service who demonstrate a change of bona fide domicile from another state to Arkansas at least twelve consecutive months prior to separation, discharge, or retirement from active military duty, and the dependents (the spouse and unmarried children who are legal dependents of the military person as defined by the IRS), shall be entitled to classification as in-state students for fee purposes. This provision is forfeited if the military person does not return to Arkansas within twelve months after separation, discharge, or retirement from active duty.

Resident Status of Students from Texarkana, Texas, and Bowie County, Texas

(Board Policy 520.10)

In accordance with the reciprocity agreement described in H.C.R. 32, signed by the Governor of Arkansas on February 12, 1965, Board Policy 520.10 states, “Residents of Texarkana, Texas and Bowie County, Texas, will be classified as in-state students for University fee purposes at the University of Arkansas.”
Academic Regulations

ACADEMIC HONESTY

Introduction
The University of Arkansas, Fayetteville, presents this policy as part of its effort to maintain the integrity of its academic processes. Academic honesty should be a concern of the entire University community, and a commitment to it must involve students, faculty, and administrators.

Students must understand what academic integrity is and what the most common violations are. With that understanding they must commit themselves to the highest standards for their own, as well as for their peers, academic behavior.

Public support and encouragement of the faculty is a second critical component necessary to strengthen academic integrity on campus. Faculty members must be continually vigilant in the management of their classes, their assignments, and their tests.

Finally, the administration of the University must present to the students standards of academic integrity. Those standards must be part of a publicly recognized, understood, and accepted set of policies and procedures that can be applied consistently and fairly in cases of academic dishonesty.

It is the responsibility of each student, faculty member, and administrator to understand these policies. A lack of understanding is not an adequate defense against a charge of academic dishonesty.

With regard to the application of this policy, the University assures its support of faculty members and other employees of the University who are acting in good faith in the course and scope of their employment and in the performance of their official duties.

This policy is only a part of the University's effort to promote academic integrity in all aspects of its programs. By necessity, this part discusses only prohibited acts and a process of applying sanctions. The ultimate goal, of course, is to provide an atmosphere that will make superfluous the procedures and sanctions that follow.

Definitions
Academic dishonesty involves acts that may subvert or compromise the integrity of the educational process at the University of Arkansas. Included is an act by which a student gains or attempts to gain an academic advantage for himself or herself or another by misrepresenting his or her or another's work or by interfering with the completion, submission, or evaluation of work. These include, but are not limited to, accomplishing or attempting any of the following acts:
1. Altering of grades or official records.
2. Using any materials that are not authorized by the instructor for use during an examination.
3. Copying from another student's paper during an examination.
4. Collaborating during an examination with any other person by giving or receiving information without specific permission of the instructor.
5. Stealing, buying, or otherwise obtaining information about an examination not yet administered.
6. Collaborating on laboratory work, take-home examinations, homework, or other assigned work when instructed to work independently.
7. Substituting for another person or permitting any other person to substitute for oneself to take an examination.
8. Submitting as one's own any theme, report, term paper, essay, computer program, other written work, speech, painting, drawing, sculpture, or other art work prepared totally or in part by another.
9. Submitting, without specific permission of the instructor, work that has been previously offered for credit in another course.
10. Plagiarizing, that is, the offering as one's own work the words, ideas, or arguments of another person without appropriate attribution by quotation, reference or footnote. Plagiarism occurs both when the words of another (in print, electronic, or any other medium) are reproduced without acknowledgement or when the ideas or arguments of another are paraphrased in such a way as to lead the reader to believe that they originated with the writer. It is the responsibility of all University students to understand the methods of proper attribution and to apply those principles in all materials submitted.
11. Sabotaging of another student's work.
12. Falsifying or committing forgery on any University form or document.
13. Submitting altered or falsified data as experimental data from laboratory projects, survey research, or other field research.
14. Committing any willful act of dishonesty that interferes with the operation of the academic process.
15. Facilitating or aiding in any act of academic dishonesty.

Procedures
Sanctions for acts of academic dishonesty may be applied in the following ways:

A. Instructor Action
When an instructor determines or believes that a student in the instructor's class is guilty of academic dishonesty deserving of sanction, the instructor should within five working days follow one of the following: (If the instructor is either a graduate teaching assistant or a temporary faculty member, then a supervising faculty member or the departmental head or chairman may assist in the handling of an academic dishonesty case.)
1. The instructor may determine a grade sanction and within five working days report that sanction, along with the essential details of the incident, to the judicial coordinator in Student Affairs. There is, under these circumstances, no request for administrative or judicial action. The student sanctioned in this way and instructor will be notified by Student Affairs and will have five working days from that notification to request a hearing by the All University Judiciary (AUJ) as outlined in Section B.2 below. If the student does not request a hearing within five working days, then it is assumed that the sanction is not contested. The student will be required to have a conference with the judicial coordinator so that the consequences of the action can be made clear.

During the course of the hearing, the student's participation in the affected class should continue so that any action can be reversed without prejudicing the student’s academic performance and evaluation. Should the hearing process not support the grading sanction applied by the instructor, then the instructor and student may agree and remedy the sanction with the student proceeding in the class without prejudice. If the instructor and the student cannot so agree, or if the grading sanction cannot be remedied, then the student may appeal via the Academic Appeal Structure for Undergraduate Students.

If the defense of any grade is based on alleged academic dishonesty and the faculty member has not followed the University policy, the ability of the faculty member to defend his or her action may be adversely affected.

2. The instructor may file an incident report form referring the case to the judicial process for determination of guilt or innocence and the application of sanctions. If the student is determined to be guilty of academic dishonesty, then the instructor may apply a grade sanction in addition to whatever sanctions are applied by the judicial process. While such a case is pending in the judicial process, the student's participation in the affected class should continue to avoid pre-empting the options available after the guilt or innocence is determined. This course of action is appropriate in cases where there is doubt about guilt or innocence or in cases where the offense deserves sanctions beyond the grading system.

B. Judicial Process

If the instructor chooses to refer the case to the judicial process as outlined in A.2 or if another student, faculty member, or administrator wishes to charge a student with academic dishonesty, the following procedures will be followed:

1. Administrative Action. This would involve the application of a sanction or an admonition or some type of probation following established guidelines by the judicial coordinator after an incident has been reported by a faculty member, an administrator, or a student. Such action may be appropriate in cases where there is little or no disagreement as to the details of the reported incident. Administrative sanctions may be appealed by any party in the incident to AUJ within three working days of notification of the administrative action.

2. All-University Judiciary (AUJ). This involves application of sanctions for academic dishonesty after the case has been heard and decided by AUJ. This would be used for contested cases, cases of appeals of instructor or administrative actions, any case involving a student with a previous record of academic dishonesty or who previously received a grade sanction for academic dishonesty, and in cases where the sanction could result in suspension or expulsion from the University. The procedures involved in AUJ action are available from Academic Affairs or Student Affairs. Any action of AUJ may be appealed within five working days through the Provost/Vice Chancellor for Academic Affairs to the Chancellor of the University. If the Chancellor discovers evidence previously unavailable to AUJ, then the Chancellor may explain in writing to the Chair of AUJ and ask that AUJ rehear the case.

Sanctions

The choice of sanctions in cases of academic dishonesty always involves consideration of the integrity of the educational process of the University. There is no place in that process for academic dishonesty, and if a student is undermining the integrity of that process, then separating that student from the University is the natural sanction. The intent of this policy is to make acts of academic dishonesty clear risks – that is, the sanctions are to be sufficiently heavy to deter academic dishonesty. Thus, the application of a grade sanction as the only sanction is to be very carefully considered and should occur only in unusual cases.

The following are possible sanctions for academic dishonesty:

1. Grading Sanctions. An instructor may apply grading sanctions. Such sanctions may also be recommended by either the judicial coordinator in case of administrative action or by AUJ, but the final decision will be that of the instructor. Grade sanctions may consist of either grades of zero or failing grades on part or all of a submitted assignment or examination, or a lowering of a course grade, or a failing grade. All grade sanctions must be appropriately reported as outlined in the procedures above. A grade sanction may be appealed by the student via the Academic Appeal Structure for Undergraduate Students.

2. Admonition or Probation. These are applied by either administrative action or AUJ action. The types:
   a. Admonition. This is a firm warning against future violations, filed in the office of the judicial coordinator.
   b. Conduct Probation. This is a probation imposed for a specified period and constitutes a final warning and a second chance to demonstrate what has been learned and to show improved judgment.
   c. Personal Probation. This is a probation imposed for a specified period and constitutes a final warning of more severe sanctions. This requires the student to meet periodically with a University official to discuss and explore alternatives to the kind of behavior that resulted in the sanction.
   d. Disciplinary Probation. This is probation imposed for a specified period and constitutes a warning that affects the student’s good standing in the University. Violations of regulations during the period are likely to result in suspension or expulsion. During the period, the student is no longer to hold campus offices, receive honors, or represent the University in extracurricular or intercollegiate activities.
   e. Educative Sanctions. These include a variety of assignments, tasks, or experiences that should make the offender more aware of the nature of the general problem of academic dishonesty. These may be applied in conjunction with any admonition or probation.

3. Suspension. Suspensions for a specified period of time from the University may be recommended by AUJ. Such suspensions may be for the remainder of a semester or for a specified number of semesters. In cases of clearly premeditated cheating or cases where either illegal actions or conspiracy with others is involved, suspension for at least the remaining part of a semester or one full semester must be considered as a sanction. Also, suspension will normally be the minimal sanction in cases where a student is guilty of academic dishonesty for a second time.
4. Expulsion. Expulsion from the University for an indefinite period of time may be recommended by AUJ.

Implementation and Review

For details of procedures for implementing this policy, contact the Office of the Provost/Vice Chancellor for Academic Affairs. This University policy does not preclude the implementation by colleges of policies determined by the Provost to be more rigorous.

TERM PAPER ASSISTANCE

The use of services of term paper assistance companies is a violation of University policies on academic integrity. Student submission of such research or term papers to meet requirements of any class or degree program is expressly prohibited and constitutes academic dishonesty. Any violation of this prohibition will automatically result in both punitive action by the instructor (e.g., the award of a grade of “F” for the course) and a referral of each violation to the All-University Judiciary Committee for its consideration.

ATTENDANCE

Education at the university level requires active involvement in the learning process. Therefore students have the responsibility to attend classes and to actively engage in all learning assignments or opportunities provided in their classes. Instructors have the responsibility to provide a written policy on student attendance that is tied to course objectives included in a course syllabus. There may be times, however, when illness, family crisis, or University-sponsored activities make full attendance or participation impossible. In these situations students are responsible for making timely arrangements with the instructor to make up work missed. Such arrangements should be made in writing and prior to the absence when possible.

Examples of absences that should be considered excusable include those resulting from the following: 1) illness of the student, 2) serious illness or death of a member of the student's immediate family or other family crisis, 3) University-sponsored activities for which the student’s attendance is required by virtue of scholarship or leadership/participation responsibilities, 4) religious observances (see UA Religious Observances policy below), 5) jury duty or subpoena for court appearance, and 6) military duty. The instructor has the right to require that the student provide appropriate documentation for any absence for which the student wishes to be excused.

RELIGIOUS OBSERVANCES

Although Christian religious holidays are reflected to some extent in the academic calendar of the University, holidays of other religious groups are not. When members of other religions seek to be excused from class for religious reasons, they are expected to provide their instructors with a schedule of religious holidays that they intend to observe, in writing, before the completion of the first week of classes. The Semester Calendar on the registrar’s Web site will inform students of the University calendar of events, including class meeting and final examination dates, so that before they enroll they can take into account their calendar of religious observances. Scheduling should be done with recognition of religious observances where possible. However, faculty members are expected to allow students to make up work scheduled for dates during which they observe the holidays of their religion.

FINAL EXAMINATION POLICY

Each faculty member is required to give final examinations at times specified in the final examination schedule. Whenever circumstances make necessary a deviation from the announced schedule, clearance for such deviation must be obtained from the appropriate dean and the Provost/Vice Chancellor for Academic Affairs.

It is the policy of the University to minimize student participation in extracurricular activities during the final examination period. No meetings, social activities, athletic events, or other extracurricular activities that require student participation will be scheduled on Dead Day or during the final examination period. Any exceptions to this policy must receive prior approval from the Provost/Vice Chancellor for Academic Affairs.

GRADES AND MARKS

Final grades for courses are “A,” “B,” “C,” “D,” and “F” (except for courses taken in the School of Architecture and the College of Agricultural and Life Sciences).

<table>
<thead>
<tr>
<th>Grade/Mark</th>
<th>Given For:</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Outstanding achievement, given to a relatively small number of excellent scholars</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good achievement</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Average achievement</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Poor but passing work</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failure, unsatisfactory work</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete course requirements</td>
<td>n/a</td>
</tr>
<tr>
<td>AU</td>
<td>Audit, officially registered</td>
<td>n/a</td>
</tr>
<tr>
<td>CR</td>
<td>Credit without grade points</td>
<td>n/a</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory work in courses w/o credit</td>
<td>n/a</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>n/a</td>
</tr>
</tbody>
</table>

No credit is earned for courses in which a grade of “F” is recorded. A final grade of “F” shall be assigned to a student who is failing on the basis of work completed but who has not completed all requirements. The instructor may change an “F” so assigned to a passing grade if warranted by satisfactory completion of all requirements. Students who fail to present an acceptable reason for not having completed all course requirements including the final examination will receive the grade they would have received had they failed such requirements.

A mark of “I” may be assigned when a legitimate good cause has prevented the student from completing all course requirements, and the work completed is of passing quality. It is the discretion of the instructor that determines what qualifies as a legitimate good cause. It is recommended that the instructor, prior to the assignment of an “I” mark, document the legitimate good cause and conditions for completing course requirements. An “I” so assigned may be changed to a grade provided all course requirements have been completed within 12 weeks from the beginning of the next semester (excluding summer semesters) of the student’s enrollment after receiving the “I.” If the instructor does not report the grade within the 12-week period, the “I” shall be changed to an “F.” When a mark of “I” is changed to a final grade, the grade points and academic standing are appropriately adjusted on the student’s official academic records.

A mark of “AU” (Audit) is given to a student who officially registers in a course for audit purposes (see Registration for Audit).
A mark of “CR” (Credit) is given for a course (for example, practice teaching, certain seminars, certain honors colloquia, and courses where credit is earned by examination) for which the University allows credit toward a degree, but for which no grade points are earned.

A mark of "S" (Satisfactory) is assigned in courses such as special problems and research when a final grade is inappropriate. The mark “S” is not assigned to courses or work for which credit is given (and thus no grade points are earned for such work). If credit is awarded upon the completion of such work, a grade or mark may be assigned at that time, and, if a grade is assigned, grade points will be earned.

A mark of "W" (Withdrawal) will be given for courses from which students withdraw after the first 10 days of the semester and before the drop deadline of the semester.

“I,” “AU,” “CR,” “S,” and “W” marks will not be counted in the grade-point average. Grades of plus and minus are assigned grade-point values in the College of Agriculture (page 71) and School of Architecture (page 104). The grade-point average is computed by dividing the total number of grade points by the total number of credit hours attempted in courses for which grades (rather than marks) are given. Students who utilized grade renewal or grade forgiveness in retaking courses (prior to Fall Semester 1986 and after Fall 1996) have only the last grade used in computing grade-point averages.

UNDERGRADUATE GRADE FORGIVENESS POLICY

Under the Grade Forgiveness Policy, a student may improve the undergraduate cumulative GPA by repeating a maximum of two courses (up to nine hours) in which a grade of “D” or “F” was received and requesting that the repeat grade be the only one that is counted in the calculation. Only two such requests are available to any student in his or her undergraduate career. The repeated grade must be in the same course taken at the University of Arkansas, Fayetteville. Only a course in which a grade of “D” or “F” was earned may be repeated under the Forgiveness Policy. Grade forgiveness may not be used to replace a grade assigned as a result of academic dishonesty. The student must file a written petition to use grade forgiveness indicating which course(s) he/she chooses to grade renew: the petition must be completed and approved prior to graduation. Both attempts at the course will remain on the transcript, but only the second will be used to calculate both credit and GPA. The first attempt and the grade earned will be recorded on the transcript with the symbol “R” to denote that it has been repeated. Students considering grade forgiveness should be aware that many graduate schools, professional schools, employers or other institutions, in considering admission or employment, recompute the GPA and include all courses attempted even though a course was repeated. This means that if the cumulative GPA has been raised because of grade renewal or forgiveness, the recomputed GPA will be lower.

SEMIESTER HONOR ROLL

The colleges of the University publish, after the close of each semester, an honor roll of the highest ranking students in the college containing the names of not more than 10 percent of the undergraduate students of each class. Students are eligible for the honor roll if they are carrying at least 12 semester hours normally required for graduation by their college for their respective year. Most colleges refer to this part of the honor roll as the Dean’s List.

In addition, a Chancellor’s List is published each semester which recognizes those undergraduate students who achieve a 4.00 grade-point average. Students must also be carrying at least 12 semester hours normally required for graduation to be eligible for the Chancellor’s List.

For honor roll eligibility, the 12 semester hours must all be in courses for which grade points are earned.

FIRST-RANKED SENIOR SCHOLARS

A first-ranked senior scholar shall be recognized at the annual Commencement of the University of Arkansas, Fayetteville. The scholar or scholars so recognized must have a cumulative grade-point average of 4.00 on all course work completed at the time selection is made, must have applied for graduation for a semester to be a member of the appropriate class and must have completed all courses required for the baccalaureate degree at the University of Arkansas, Fayetteville, or in a program of study approved by the Director of Honors or other designee in the college in which the student is enrolled. In determining the cumulative grade-point average for the purposes of such awards, grade forgiveness, is not accepted.

SENIOR SCHOLAR

Since 1941 a key has been awarded to the graduating senior from each undergraduate college who has the highest grade-point average and who has completed at least half of his or her degree work at the University of Arkansas.

ACADEMIC PROGRESS, SUSPENSION, AND DISMISSAL

A student’s academic standing in the University is determined at the end of each term of enrollment (fall, spring, or summer) on the basis of the student’s cumulative and/or term grade-point average (GPA) and number of hours earned. See the chart on below for the required performance levels. The
Academic Regulations

University of Arkansas, Fayetteville

student’s academic standing governs his or her re-enrollment status and determines any conditions associated with re-enrollment or denial of enrollment for a subsequent term. Normally, students will be notified of their standing individually by the University shortly after the end of each term. However, this policy statement is the formal notification to all students of the conditions that determine academic standing and the consequences for each term, regardless of individual notification.

Good Standing: Upon initial admission and during a student’s first term of enrollment, except for transfer students, the student is in good standing. (The standing of a transfer student reflects the student’s prior record and the status assigned upon admission). A student receives in, or returns to, good academic standing at the end of any term when the cumulative GPA is at or above the required minimum.

Academic Warning: When a student’s cumulative GPA falls below the minimum required for good standing, the student will be put on academic warning. This status is not recorded on the student’s permanent academic record and will not appear on transcripts. A student who enrolls for a term on academic warning may take no more than 12 hours (unless more are approved by the student’s adviser and dean). To continue for one or more additional terms on academic warning, the student must earn a term GPA at or above the cumulative GPA required for good standing. The student can remain on academic warning until the cumulative GPA is at or above the required minimum for good standing unless the student becomes subject to academic suspension by failing to earn the required term GPA.

Academic Suspension: A student on academic warning who does not earn the minimum required term GPA will be suspended from full-time enrollment. No student may be suspended who has not spent the prior term of enrollment on academic warning. A student on academic suspension has two alternatives: limited enrollment or academic leave of one year from the University.

Students who choose limited enrollment may enroll for up to nine hours of on-campus or Independent Study course work (as approved by the student’s adviser and dean) and must earn at least six hours of credit with grades of C or higher in six hours while maintaining a term GPA of 2.0. A student who meets these conditions may enroll for a subsequent term on academic warning following suspension.

Students who choose academic leave may apply for readmission one year after the term of the suspension. A student who does not earn credit from another institution will be readmitted on academic warning following suspension. A student who earns credit from another institution(s) during or subsequent to the year of suspension must apply to the University for admission as a transfer student and, if readmitted, will be on academic warning following suspension.

Academic Warning Following Suspension: A student on academic warning following suspension may take no more than 12 hours (unless more are approved by the student’s adviser and dean) and must earn a term GPA of 2.00 or higher for each term of enrollment until the student’s cumulative GPA is at the level required for good standing. Failure to satisfy these requirements will result in dismissal.

Academic Dismissal: A student on academic suspension or academic warning following suspension who does not earn a term GPA of 2.00 or higher and satisfy all other requirements associated with his or her status will be dismissed from the University. A student who has been dismissed may be readmitted only upon action of the Academic Standards Committee. Course work taken through Independent Study while under dismissal may be submitted to the committee as evidence of academic competence. If readmitted, the student may receive degree credit for such course work.

Academic Warning Following Dismissal: A student who enrolls subsequent to an initial dismissal and following favorable action of the Academic Standards Committee is placed on academic warning following dismissal and may take no more than 12 hours (unless more are approved by the student’s adviser and dean) and must earn a term GPA of 2.00 or higher. Failure to

satisfy these requirements will result in a second academic dismissal. A second dismissal is for five years, after which a student must petition for readmission to the University to the Academic Standards Committee and may also apply for Academic Bankruptcy. Individual colleges or programs have the discretion to set academic admission and continuation standards for specific programs that are higher than University standards.

REQUIREMENTS FOR GRADUATION

University Core Requirements (See chart on page 40)

The University of Arkansas has adopted a “State Minimum Core” of 35 semester-credit-hours of general education courses that are required of all baccalaureate degree candidates. This is in compliance with Arkansas Act 98 of 1989 and the subsequent action of the Arkansas State Board of Higher Education. Beginning in the fall semester of 1991, all state institutions of higher education in Arkansas have a 35-hour minimum core requirement with specified hours in each of six academic areas. The University has identified those courses that meet the minimum requirement, and they are listed in the chart above.

Students should consult the requirements for specific colleges and programs when choosing courses for use in the UA University Core.

Rationale for U of A General Education Core

In order to prepare its students for lives of the highest individual quality and the greatest potential contribution to the making of a better world, the University of Arkansas has developed a comprehensive program of general education. Although the basic skills, knowledge, methodologies, and judgments derived from experience in the core area set forth here may provide the basis for a major or professional concentration, the aims of these core requirements are not career specific. Rather, the following areas are designed to develop the tools for critical thinking and effective communication, an understanding of our richly diverse human heritage, the flexibility to adapt successfully to a rapidly changing world, a capacity for lifelong learning, and an enthusiasm for creativity.

English/Communication (6 hours)

Courses offered in this area are designed to develop the ability to organize ideas and to communicate them in grammatically correct written English with clarity, precision, and syntactical maturity. Freshman English courses taken at other universities will satisfy this requirement only if they are courses in composition. Students whose ACT scores in English are 18 or below must enroll in the sequence of courses ENGL 0003, ENGL 1013, and ENGL 1023. Students whose ACT scores in English are between 19 and 27 should enroll in ENGL 1013-1023. Students with English ACT scores of 28 or above may enroll in Honors English (1013H-1023H) or regular English (1013-1023). Students with English ACT scores of 30 or above may take 1013H-1023H or elect exemption. Students electing exemption must fill out forms in the English department office. Some programs require credit in composition, and students should confer with their advisers before choosing exemption.

Fine Arts/Humanities (6 hours)

Courses presented in this area are drawn from the study of human thought, emotion, values, culture, and aesthetics. They are designed to develop the capacity for reflection, an appreciation of our own diverse culture and a tolerance of those foreign to us, and a heightened aesthetic and ethical sensibility. The courses are not performance-based, but offer students a basis for the gradual acquisition of broad cultural literacy.
## University Core (State Minimum Core)

<table>
<thead>
<tr>
<th>Areas</th>
<th>Hours</th>
<th>University Core</th>
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<tbody>
<tr>
<td>English</td>
<td>6</td>
<td>ENGL 1013 Composition I</td>
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<tr>
<td></td>
<td></td>
<td>ENGL 1023 Composition II</td>
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<tr>
<td>Mathematics2</td>
<td>3</td>
<td>MATH 1203 College Algebra</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Any higher-level mathematics course required by major</td>
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<tr>
<td>Science3 (Students required</td>
<td>8</td>
<td>ASTR 2003/2001L Survey of the Universe</td>
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<tr>
<td>to take corresponding lecture/</td>
<td></td>
<td></td>
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<tr>
<td>lab combinations as listed.)</td>
<td></td>
<td>ANTH 1013/1011L Biological Anthropology/Lab</td>
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<tr>
<td></td>
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<td>BIOL 1543/1541L Principles of Biology</td>
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<td>BIOL 1603/1601L Principles of Zoology</td>
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<td></td>
<td></td>
<td>BIOL 1613/1611L Plant Biology</td>
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<td></td>
<td></td>
<td>BIOL 2213/2211L Human Physiology</td>
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<tr>
<td></td>
<td></td>
<td>BIOL 2443/2441L Human Anatomy</td>
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<td>CHEM 1023/1021L Basic Chem/Health Science</td>
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<td>CHEM 1053/1051L Chem in Modern World</td>
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<td>CHEM 1074/1071L Fundamentals of Chemistry</td>
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<td>CHEM 1103/1101L University Chemistry I</td>
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<td></td>
<td>CHEM 1123/1121L University Chemistry II</td>
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<td>CHEM 1213/1211L Chemistry for Majors I/L</td>
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<td>CHEM 1223/1221L Chemistry for Majors II/L</td>
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<td>GEOL 1113/1111L General Geology</td>
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<td>GEOL 1133/1131L Environmental Geology</td>
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<td>PHYS 1023/1021L Physics and Human Affairs</td>
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<td>PHYS 1044 Phys for Architects I</td>
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<td>PHYS 2013/2011L College Physics I</td>
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<td></td>
<td></td>
<td>PHYS 2033/2031L College Physics II</td>
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<td></td>
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<td>PHYS 2074 Univ Physics II</td>
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<td>Fine Arts, Humanities4</td>
<td>6</td>
<td>a) Fine Arts:</td>
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<tr>
<td></td>
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<td>ARCH 1003 Basic Course in the Arts: Architecture Lecture</td>
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<td>ARHS 1003 Basic Course in the Arts: Art Lecture</td>
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<td>ARTS 1003 Basic Course in the Arts: Art Studio</td>
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<td>COMM 1003 Basic Course in the Arts: Film Lecture</td>
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<td>DANC 1003 Basic Course in the Arts: Movement &amp; Dance</td>
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<td>DRAM 1003 Theater Lecture</td>
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<td>HUMN 1003 Introduction to the Arts and Aesthetics</td>
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<td>LARC 1003 Basic Course in the Arts: The American Landscape</td>
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<td>MLIT 1003 Basic Course in the Arts: Music Lecture</td>
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<td>b) Humanities:</td>
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<tr>
<td></td>
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<td>PHIL 2003 Intro to Philosophy</td>
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<td>PHIL 2103 Intro to Ethics</td>
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<td>PHIL 2203 Logic</td>
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<td>PHIL 3103 Ethics and the Professions</td>
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<td>c) Humanities:</td>
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<td>CLST 1003 Intro Classical Studies: Greece</td>
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<td>HIST 2003 History of Amer. People or Government to 1877</td>
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<td>HIST 2013 History of Amer. People 1877 to Present</td>
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<td>PLSC 2003 American National Government</td>
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<td>Social Sciences5</td>
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<td>9</td>
<td>(Select from at least two different fields of study)</td>
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<td></td>
<td></td>
<td>AGEC 1103 Prin of Agri Micro-economics</td>
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<td>AGEC 2103 Prin of Agri Macro-economics</td>
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<td>ANTH 1023 Intro to Cultural Anth</td>
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<td>ECON 2023 Prin of Microeconomics</td>
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<td>ECON 2143 Basic Economics: Theory &amp; Practice</td>
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<td>GEOG 1123 Human Geography</td>
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<td>GEOG 2003 World Regional Geography</td>
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<td>GEOG 2023 Economic Geography</td>
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<td>HESC 1403 Life Span Development</td>
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<td>HESC 2413 Family Relations</td>
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<td>HIST 1003 Institutions and Ideas of Western Civilization I</td>
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<td>HIST 1013 Institutions and Ideas of Western Civilization II</td>
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<td>HIST 1113 Institutions and Ideas of World Civilizations I</td>
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<td>HIST 1123 Institutions and Ideas of World Civilizations II</td>
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<td></td>
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<td>HIST 2003 History of Amer. People to 1877</td>
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<td></td>
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<td>HIST 2013 History of Amer. People 1877 to Present</td>
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<td>HUMN 1114H Hnrs. Roots of Culture to 500C.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HUMN 2114H Hnrs. Birth of Modern Culture, 1600-1900</td>
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<td>PLSC 2003 American National Government</td>
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<td>PLSC 2013 Intro to Comparative Politics</td>
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<td>PLSC 2203 State &amp; Local Gov</td>
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<td>PSYC 2003 General Psychology</td>
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<td>RSOC 2603 Rural Sociology</td>
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<td></td>
<td>SOCI 2013 General Sociology</td>
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<tr>
<td></td>
<td></td>
<td>SOCI 2033 Social Problems</td>
</tr>
</tbody>
</table>

Footnotes for the State Minimum Core:

1 Some students majoring in math, engineering, science and business may be required to take a higher math as part of the State Minimum Core.
2 Some students majoring in math, engineering, science, education and health-related professions may be required to take higher or specific science courses as part of the State Minimum Core.
3 Some students majoring in engineering may be required to take either six hours of humanities or social sciences at the junior/senior level or substitute an additional six hours of higher math and/or additional science as part of the State Minimum Core.
4 Students may choose any intermediate-level foreign language course numbered 2003. See Foreign Languages.
5 Some students majoring in engineering may be required to take either six hours of humanities or social sciences at the junior/senior level or substitute an additional six hours of higher math and/or additional science as part of the State Minimum Core.
6 If not selected to meet the three hours of the U.S. History requirement.
Mathematics (3 hours)

Courses offered in this area are designed to develop the student's ability to understand the diverse mathematical concepts that shape our increasingly technical culture. Core mathematics courses presuppose the ability to apply mathematical techniques at the level of high school algebra and geometry. The specific course(s) selected will depend upon each student's curriculum, but no course below college algebra may be used to fulfill core requirements.

Science (8 hours)

A primary goal of these courses is to develop an appreciation of the basic principles that govern natural phenomena and the role of experiment and observation in revealing these principles. Students should acquire an understanding of the relationship between hypothesis, experiment, and theory, and develop the skills common to scientific inquiry, including the ability to frame hypotheses and defend conclusions based on the analysis of data. These courses are designed to prepare a student for informed citizenship by illustrating the importance of science and technology to the present and future quality of life and the ethical questions raised by scientific and technological advances.

Social Science (9 hours)

The social sciences acquire and transmit knowledge with a distinctive set of methodologies. Courses offered in these methodologies are designed to equip students with an understanding of the causes and consequences of actions taken by individuals as well as by groups and institutions.

American History and Civil Government

Under Arkansas law, no undergraduate degree may be granted to any student who has not passed a college course in American history and civil government. Courses offered by the University of Arkansas, any one of which will meet this requirement, are HIST 2003 History of the American People to 1877; HIST 2013 History of the American People, 1877 to Present; and PLSC 2003 American National Government.

Advanced Composition

Every undergraduate student at the University of Arkansas is required to take and pass ENGL 2003, a three-hour course in composition, unless exemption can be gained in one of the following ways: (1) by demonstrating a satisfactory writing ability on the Advanced Composition Exemption Examination, (2) by completing ENGL 2013 (Essay Writing), or (3) by achieving a grade of "A" or "B" in ENGL 1013 and a grade of "A" in ENGL 1023 in courses taken at the University of Arkansas, Fayetteville.

ENGL 2003 will not count as part of the total number of hours required for a degree in the College of Engineering or School of Architecture or the Food, Human Nutritional Hospitality curriculum in the School of Human Environmental Sciences in the College of Agricultural, Food and Life Sciences.

Students must satisfy the requirement of ENGL 1013 and ENGL 1023 and complete 30 credit hours before taking the Advanced Composition Exemption Exam. The exam must be taken before the student has acquired 96 credit hours. The English requirement applies to all transfer students regardless of non-freshman composition courses taken at other schools. Junior and senior transfer students must take the examination at the time they enter the University of Arkansas.

Students not gaining exemption from ENGL 2003 must register for the course before the last semester of their senior year.

The examination will be graded in the following categories: (1) pass or (2) fail. Students who take and do not pass the Exemption Exam must take ENGL 2003.

Residence

The full senior year must be completed in residence except that a senior who has already met the minimum residency requirement will be permitted to earn not more than 12 of the last 30 hours in extension or correspondence courses or in residence at another accredited institution granting the baccalaureate degree. No more than six of these 12 hours may be correspondence courses. The minimum residence requirement is 36 weeks and 30 semester hours. Residency for the senior year is defined as a period during which the student must be enrolled in courses offered on the campus in Fayetteville. This is intended to provide adequate contact with the University and its faculty for each student who is awarded a degree. Colleges and departments have the authority to prescribe residence requirements that exceed those described here.

Minimum Credit Hours

All students awarded a baccalaureate degree must have a minimum of 124 credit hours. Individual programs may require additional hours. Courses not marked in the course description as eligible to be repeat for degree credit may be included in this total only once.

Minimum Grade-Point Average

No student will be allowed to graduate if the student has "D" grades in more than 25 percent of all credit earned in this institution and presented to meet the requirements for a degree. No student will be allowed to graduate if on Academic Warning.

Application for Graduation

Students who plan to graduate must file an official application to do so. Applications should be filed for the term in which degree requirements will be completed. A graduation fee will be required at the time of application.

Students intending to complete requirements during the spring semester should file their applications by the priority consideration deadline published in the schedule of classes. This will help graduating students ensure they will be listed in the commencement program, considered for graduation honors, and receive priority when diplomas are mailed.

Students completing requirements during fall or summer terms must file an application by the deadlines established for those terms.

A student who fails to complete the degree during the intended semester must renew the application and pay a renewal fee for the term in which the degree requirements will be completed.

Other Graduation Requirements

Individual colleges and schools may have special graduation requirements, in addition to degree program requirements. Consult the college or school section in this catalog for statements of additional requirements.

Degree Program Requirements

A student's degree program requirements are normally those specified in the catalog for the student's first year of enrollment. However, students may choose to meet the program requirements specified in a catalog for a later year and, under some circumstances, students may be required to meet degree program requirements incorporated into the curriculum at a level beyond that at which the student is enrolled.

Students who transfer from institutions with articulation agreements with the University may also be allowed to meet the University program requirements in effect during their first year of enrollment in those institutions, subject to the time limits described below and the availability of course work. Students who transfer to a different degree program may be required to meet the program requirements specified in the catalog for the year of entry into that program. Students who are not enrolled for a period of two years or longer may be required to reenter under program requirements in the current
catalog. Students who wish to be granted a degree on the basis of requirements specified in a catalog more than seven years old may be required to petition the college or school to be allowed to do so.

Students are expected to keep themselves informed regarding program requirements and changes.

EIGHT-SEMESTER DEGREE COMPLETION POLICY

The University of Arkansas is committed to helping all of its students identify and achieve their educational goals. The many U of A programs of study and activities provide opportunities to students to follow varied career and learning paths and enjoy educational experiences of different kinds. Plans for degree completion are available in the Catalog of Studies, from colleges, schools, and departments, and at the University Web site. Academic advising services in each college and school assist students in making plans for their own degree completion and in carrying them out consistent with students’ abilities, circumstances, and preferences.

Beginning with the fall of 2006, a new program, the Eight-Semester Degree Completion Program (DCP), will make it possible for qualified degree-seeking freshmen to express their intention -- and assume the associated obligations -- to complete identified bachelor's degree programs of study in four academic years. The list of majors and degrees designed to be completed in eight semesters and for which the DCP is available is maintained by each college and school and may be accessed from the DCP Web site. The list and degree completion plans for the programs are also made available in the Catalog of Studies (the complete online catalog), through schools, colleges and departments, and at the DCP Web site. Before registering for their first semester of study, all freshmen entering the University must accept participation, decline participation, or acknowledge ineligibility for participation in the DCP by signing the Participation Document. New freshmen will be notified regarding how to view the Participation Document on-line and learn more about registering for a Degree Completion Program. A student’s participation or nonparticipation in the DCP will not affect scholarship eligibility.

Students who are admissible to the DCP and who choose to participate have the responsibility for meeting all requirements specified by the University and their degree completion plan and the responsibility for complying with the DCP policy. The University has the responsibility to provide advising support and the opportunity for students to enroll in and complete all required courses and all other University and program requirements as scheduled in the program plan within eight sequential semesters. The University will also provide students with timely notifications to the student's official University e-mail address regarding advising, registration, and other requirement completion information.

A student may choose at any time to discontinue participation in the DCP without penalty. Students are encouraged to discuss such choices with an authorized academic adviser for the program of study. Participation and subsequent withdrawal from the DCP will not in themselves jeopardize the student's opportunity to complete the degree program, to do so in a timely manner, or to complete another degree program or major by fulfilling program requirements.

In some circumstances it may be in a student’s best interest to decline participation or withdraw from the DCP. Examples include students who are not prepared to choose a major before enrolling for the first semester and students who feel that a full semester class load of 15 or 16 hours will be too heavy given other responsibilities. Other students may plan to study abroad for a semester in an institution where the required courses are not offered or to participate in a semester-long internship program not included in the program plan. A decision or need to work or participate in certain time-intensive curricular and extra-curricular activities such as band and intercollegiate athletics may make it impossible to schedule all program requirements in some programs. A student may be required to withdraw from the DCP as a result of illness or other personal circumstances that make it impossible to do his or her best work, continue as a full-time student, or complete requirements in the time available. There are also a number of acts and events that may or will cause the DCP agreement to be voided, and these are identified below in the section “Student acts and other events that will or may void the degree completion plan agreement.”

Requirements for Admission to the Eight-Semester Degree Completion Program (DCP):

1. Participants must begin their program of study in the fall semester as first-time, full-time freshmen and must be committed to be full-time students able to enroll in and successfully complete at least 31-36 hours each academic year.

2. Participants must have chosen a major included in the DCP, must meet all admission requirements for the chosen program of study including applicable program grade point average and other grade requirements, and must have been admitted to programs requiring formal program admission.

3. Participants must be qualified to begin enrollment in the fall semester without being required to take remedial courses in math, English, or reading or other course prerequisites to entry-level courses in the chosen program of study.

Requirements for Continuance and Completion of the Eight-Semester Degree Completion Program:

1. Students must follow exactly the degree completion plan for the chosen major and must meet all the specified requirements in their degree plan each semester unless an alternative is approved by an authorized academic adviser for their program or they have already met the requirement.

2. Students must be continuously enrolled in and successfully complete at least 31-36 semester credit hours of appropriate course work each academic year as outlined in their degree completion plan.

3. Students must make satisfactory academic progress as defined by the University and degree program and must maintain the grade point average required by the University and the program of study.

4. Students must monitor their own progress in meeting the requirements identified in their degree completion plan, consistent with the program plan.

5. Students must register for classes at the first/earliest assigned time during their designated registration period each semester for the following term. For courses required for graduation, students must accept any available course or class section that does not conflict with other required courses. Students should understand that special scheduling accommodations cannot be guaranteed for work or other activities including athletics and band.

Students must seek assistance from an authorized academic adviser for their chosen program of study if they are unable to identify or register for any course(s) required for that semester in their degree program. For situations in which an authorized academic adviser for the program cannot identify a required course for the student to take, the adviser must notify the department chair and dean for the student’s program of study that it has not been pos-
sible for the student to complete registration for a required course for the next semester of enrollment. Notification must be made in writing immediately following the unsuccessful attempt to register.

Consistent with the terms of the degree completion program, the chairperson or dean will identify an alternate course, in writing, to fulfill graduation requirements or will provide an override to allow the student to enroll in the required course(s).

Students must complete registration no later than the last official day of class for the fall or spring term preceding the next term of enrollment, unless the identification of an appropriate course to complete the student’s registration is still in progress.

6. Students must have prior written approval by an authorized academic adviser before enrolling in any course at another institution (such as concurrent enrollment, enrollment during a summer term, or study abroad) if the student wishes to transfer the course and have the course included in the coursework submitted for the degree completion plan.

7. Students must confer with an authorized academic adviser for their program before withdrawing from a required course as such a withdrawal will void the DCP agreement.

8. Students must at all times maintain an accurate local address, and telephone number in official university records. Students may make changes to such information in the Student Information System Self Service component as needed and should make them immediately following any change. Students may also make changes by written notice to the Registrar.

9. Students must respond in a timely way to any official notice or message from an authorized academic adviser and to any official notice regarding registration, degree progress, financial obligations or aid, or any other university requirement.

10. Students must make timely application for all necessary financial assistance, consistent with deadlines.

11. Students must meet all University degree requirements (including formal application for graduation consistent with deadlines and requirements as established by the Registrar for the semester in which the student is scheduled for graduation).

**Student Acts and Other Events That Will or May Void the Degree Completion Plan Agreement:**

1. Withdrawing from (“dropping”) a required course
2. Receiving a failing grade in a required course or receiving a grade below that required by the program
3. Changing one’s major or degree program
4. Withdrawing from the University
5. Failure to meet any degree requirement(s) as specified and in the time specified
6. Unauthorized non-payment or delayed payment of any tuition or fees
7. Incurring a disciplinary action affecting the student’s enrollment
8. Failing to comply with any other requirement of the Eight-Semester Degree Completion Policy

**Appeal Process**

A student may appeal the voiding of the DCP to the dean of the college or school in which the student is enrolled. The appeal process requires that the student submit a statement of the basis for the appeal to the dean in writing within 30 days following notification of the voiding of the program, with a copy to an authorized academic adviser for the program. The dean will notify the student and the adviser of the outcome of the appeal within 60 days after receiving the statement.

**GRADUATION RATES**

In accordance with the Student Right-To-Know and Campus Security Act of 1990, the following is a summary of the institution’s six-year graduation rates:

<table>
<thead>
<tr>
<th></th>
<th>Fall 2000 Graduating, Bachelor, Degree-Seeking Freshmen</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>Total Graduates</td>
<td>592</td>
<td>678</td>
</tr>
<tr>
<td>Percent of Total</td>
<td>56%</td>
<td>60%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Fall 2000 Graduating Student Athletes Who Received Athletically Related Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Total</td>
<td>42% 59% 48%</td>
</tr>
</tbody>
</table>
7. The State Minimum Core (SMC): Act 98 of 1989 requires each institution of higher learning in Arkansas to identify a minimum core of general education courses that shall be fully transferable between state-supported institutions. Under guidelines from the State Board of Higher Education, the SMC consists of 35 hours distributed among the following education areas: English, U.S. history or government, mathematics, science, fine arts and humanities, and social sciences. Students transferring credit with grades of “C” or better from the approved SMC of another state-supported institution in Arkansas may expect to have all these hours applied toward their degree at the University of Arkansas. Each college at the University of Arkansas reserves the right to set additional general education or core requirements above and beyond those in a particular 35-hour SMC, however. The evaluation of transfer credit performed by the receiving college dean’s office will determine the extent to which courses transferred as part of a SMC will satisfy degree requirements.

Students should be prepared to submit course descriptions and syllabi of transfer work if there is any question concerning acceptance of credit toward a degree program. The University reserves the right to revise credit for advanced standing after the student has been in residence.

Please refer to the appropriate college or school section of this catalog for additional information concerning acceptance into specific degree programs.

Arkansas Course Transfer System (ACTS)
The Arkansas Course Transfer System (ACTS) contains information about the transferability of courses within Arkansas public colleges and universities. Students are guaranteed the transfer of applicable credits and the equitable treatment in the application of credits for the admissions and degree requirements. Course transferability is not guaranteed for courses listed in ACTS as No Comparable Course. Additionally, courses with a D frequently do not transfer and institutional policies may vary. ACTS may be accessed on the Internet by going to the ADHE Web site at http://adhe.edu/ and selecting Course Transfer.

GRADUATION HONORS

The faculty of each college will recommend for graduation with honors or with high honors those students it considers to be eligible for such distinction under its own regulations with the following general restrictions:

1. To be eligible for graduation honors a student must have completed at least one-half of his or her degree work at the University of Arkansas.
2. No student shall be eligible for graduation honors whose cumulative grade-point average is below 3.125.
3. A college should not recommend more than 10 percent of its graduating class for graduation honors except under unusual circumstances.
4. It is recommended that in determining graduation honors the faculty consider the whole of a student’s record but give greater weight to the last half of the record than to the first half.

ADDITIONAL BACHELOR’S DEGREE

A person with a bachelor’s degree from the University of Arkansas, or from any other institution, may not receive another bachelor’s degree without completing in residence at least 30 hours of additional, not necessarily subsequent, courses selected from the courses leading to a degree for which the person is a candidate.

More than 30 hours of course work may be required. In addition to the college or school requirements, the candidate must also meet all University requirements as stated in the catalog, including graduation and core requirements, except when course work for the first degree satisfies requirements for the second.

ANNUAL NOTICE OF STUDENT RIGHTS UNDER THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are as follows:

1. The right to inspect and review the student’s education records, with some exceptions under the Act, within 45 days of the day the University receives a request for access. Students should submit to the Registrar’s Office written requests that identify the record(s) they wish to inspect. The appendix to University-wide Administrative Memorandum 515.1 provides a list of the types and locations of education records, the custodian of those records, and copying fees for each individual campus. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading. Students should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. A sample form, which may be used in making this request, is contained in the appendix to University-wide Administrative Memorandum 515.1.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing and is also contained in the University-wide Administrative Memorandum 515.1.

3. The right to withhold consent of disclosure of directory information, defined as the following information: the student’s name; address; telephone number; date and place of birth; religious preference; major field of study; classification by year; number of hours in which enrolled and number completed; parents’ or spouse’s names and addresses; marital status; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance including matriculation and withdrawal dates; degrees, scholarships, honors, and awards received, including type and date granted; most recent previous education agency or institution attended; and photograph.

This information will be subject to public disclosure unless the student informs the Registrar’s Office in writing each semester that he or she does not want his information designated as direc-
Academic Regulations

To prevent publication of name in the printed student directory, written notice must reach the Registrar’s Office by August 31 of the fall semester.

4. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an educational record to fulfill his or her professional responsibility.

Upon request, the University also discloses education records without consent to officials for another school in which a student seeks or intends to enroll.

5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is as follows:
   Family Policy Compliance Office
   U.S. Department of Education
   400 Maryland Avenue, SW
   Washington DC 20202-4605

6. University-wide Administrative Memorandum 515.1 is available on request in the main library on campus.

PHOTOGRAPHIC AND VIDEO IMAGES

The University is proud to publish and display photographic and video images of UA students, their activities and accomplishments. Any student who does not wish to be represented in such photographic and video images by the University should choose to withhold photos on the FERPA option on the University’s student information system.

<table>
<thead>
<tr>
<th>CLEP Examination</th>
<th>UA Course</th>
<th>Minimum Score for Credit</th>
<th>Maximum Credit Allowed</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Paper-based test (pre 7/01)</td>
<td>Computer-based test (effective 7/01)</td>
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<td>General Examinations</td>
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<tr>
<td>College Mathematics</td>
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<td>English Composition¹</td>
<td>ENGL 1013</td>
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<td>ENGL 1013 &amp; ENGL 1023</td>
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<tr>
<td>Approved Subject Examinations</td>
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<tr>
<td>American Government</td>
<td>PLSC 2003</td>
<td>47</td>
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<tr>
<td>Biology</td>
<td>BIOL 1543/1541L</td>
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<td>Calculus</td>
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<td>College Algebra</td>
<td>MATH 1203</td>
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<td>College Algebra – Trigonometry</td>
<td>MATH 1285</td>
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<td>Freshman College Composition²</td>
<td>ENGL 1013</td>
<td>52 + acceptable essay</td>
<td>57 + acceptable essay</td>
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<td></td>
<td>ENGL 1013 &amp; ENGL 1023</td>
<td>62 + acceptable essay</td>
<td>66 + acceptable essay</td>
</tr>
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<td>Chemistry</td>
<td>CHEM 1103/1101L</td>
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<td>&amp; CHEM 1123/1121L</td>
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<tr>
<td>History of United States I</td>
<td>HIST 2003</td>
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<tr>
<td>History of United States II</td>
<td>HIST 2013</td>
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<td>Human Growth &amp; Development</td>
<td>HESC 1403</td>
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<td>Introduction to Educational Psychology</td>
<td>PSYC 4033</td>
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<td>Introductory Psychology</td>
<td>PSYC 2003</td>
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<td>Introductory Sociology</td>
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<td>Principles of Macroeconomics</td>
<td>ECON 2013</td>
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<td>Trigonometry</td>
<td>MATH 1213</td>
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<td>Western Civilization I</td>
<td>HIST 1003</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Western Civilization II</td>
<td>HIST 1013</td>
<td>50</td>
<td>60</td>
</tr>
</tbody>
</table>

¹ The University accepts both the 90-minute multiple-choice test and the 90-minute test, which includes a 45-minute multiple-choice section and a 45-minute essay section.
² Essay required. Numerical scores by themselves will not suffice for credit, nor will they guarantee credit.
The procedures are:

of the end of the term in which the grade that is being appealed was assigned.

All grievances concerning course grades must be filed within one calendar year
substantially from the announced policy, or that a policy was not announced.

lege the instructor’s policy was not applied consistently to all students, differed
through a student grade appeal structure. Disagreements shall be heard that al-

Grade Appeal Structure for Undergraduate Students

If a student questions the fairness or accuracy of a grade, there is recourse
through a student grade appeal structure. Disagreements shall be heard that al-
lege the instructor’s policy was not applied consistently to all students, differed
substantially from the announced policy, or that a policy was not announced.

All grievances concerning course grades must be filed within one calendar year
of the end of the term in which the grade that is being appealed was assigned.

The procedures are:

1. The student should first discuss the matter with the instructor
involved, doing so as soon as possible after receiving the grade.
The instructor should be willing to listen, to provide explanation,
and to be receptive to changing the grade if the student provides
convincing argument for doing so. The student’s questions may be
answered satisfactorily during this discussion.

2. If the student chooses to pursue the grievance, the student shall
take the appeal in written form to the appropriate department
chairperson. That person, if she or he believes the complaint may
have merit, will discuss it with the instructor.

3. If the matter remains unresolved, it will be referred to an ad hoc
committee composed of the entire faculty of the instructor’s de-
partment. The committee will examine available written informa-
ton on the dispute, will be available for meetings with the student
and with the instructor, and will meet with others as it sees fit.

4. If the faculty committee, through its inquiries and deliberations,
determines that the grade should be changed, it will request that
the instructor make the change and provide the instructor with a
written explanation. Should the instructor decline, he or she must
provide an explanation for refusing.

5. If the faculty committee, after considering the instructor’s explana-
tion, concludes it would be unjust to allow the original grade to
stand, it may then recommend to the department chairperson that
the grade be changed. That individual will provide the instructor
with a copy of the recommendation and will ask the instructor to
implement it. If the instructor continues to decline, the chairper-
sion is then obligated to change the grade, notifying the instructor
and the student of this action. Only the chairperson has the au-

dority to effect a grade change over the objection of the instructor
who assigned the original grade, and only after the foregoing pro-
cedures have been followed. If the faculty committee determines

that the grade should not be changed, it should communicate this
conclusion to the student, the faculty member, and the chair.

Student Complaint Procedure

This procedure is designed to give all students a means by which an aca-
demically related complaint against an instructor other than that which is solely
concerned with a grade (covered by the previous section) may be reviewed and
acted upon in such a way as to protect the rights of both the student and the
instructor. The procedure must be initiated within one calendar year of the
occurrence of the cause for the complaint.

Guidelines: All committee discussions or hearings shall be private. Further-
more, every effort shall made to protect any person against discrimination as a
result of statements or actions made in this procedure, but fraudulent or inten-
tionally deceptive statements and/or allegations shall be considered an extremely
serious violation of the procedures and could result in a recommendation for
grave disciplinary measures. Nothing in this procedure may violate policies
stated under “Appointments, Promotions, Tenure, Non-reappointment, and
Dismissals” in the Faculty Handbook.

Definitions of Terms: Student – Under this procedure, a student is any
person who has been formally admitted to the University of Arkansas and who
is or was enrolled as an undergraduate student at the time the alleged grievance
occurred. (A separate procedure exists for graduate students.) Decision – A
decision will include a review of the issues, a determination about the validity of
the complaint, the reasons for the determination, and any recommendations.
A decision will be stated in writing. Working Days – Working days refers to
Monday through Friday, excluding official University holidays.

Procedures: The normal course for a student or a group of students with
an academically related complaint concerning an instructor is to go first to
that instructor, although the student or group may appeal to the instruc-
tor’s chairperson, supervisor, or dean in an attempt to resolve the problem
informally and amicably. However, if a student has a complaint regarding
academic concerns not covered under the “Academic Appeal Structure”
and, for whatever reason, does not wish or is unable to resolve the issue
informally, the student is entitled to have the issue considered under the
following normal procedures.

1. The student will submit a written complaint with supporting
information to the Vice Chair of the Campus Council or to the
Chair of the Student Panel or to the Chair of the Faculty Panel (as
described in item 4 below). These three persons will comprise a
Contact Committee, with the Vice Chair of the Campus Council
as coordinator, and will be responsible for the initial review of
the student’s complaint. If the Contact Committee, without any
preliminary investigation, agrees unanimously that a particular
complaint is not subject to these procedures or should not be
pursued, the student will be notified in writing. No further action
will be taken under these procedures unless the student files within
five working days a written request for a preliminary investigation
by the Contact Committee or for an investigation by a Hear-
ing Committee; this request will be honored, and the instructor
shall be informed immediately about the filing of the complaint,
the nature of the complaint, and the initiation of the investiga-
tion. Deliberate and cautious discretion will be used to preserve a
student’s anonymity (if possible, depending upon the nature of
the complaint) and to protect the faculty member from presumpti-
ve suspicion.

2. If, through lack of unanimous agreement or as a result of the
student’s request, the Contact Committee pursues the complaint,
the Committee will initiate the preliminary investigation.
The preliminary investigation should be completed within 15
working days, if possible, from the date the request is received.
After the investigation, the Contact Committee has a choice of two alternatives:

a. It will make a determination regarding the complaint and will notify in writing both parties; or
b. It will determine that a Hearing Committee should be appointed and that a more thorough investigation should be conducted. Both parties will be advised of this determination and of who has been appointed to serve on the Hearing Committee.

3. If the Contact Committee has made a determination regarding resolution of the complaint and if either party is not satisfied with this determination, that party has a prerogative of requesting and having a Hearing Committee appointed to investigate the matter further.

4. Members of a Hearing Committee will be selected from two panels of 15 persons each: one of students, chosen by ASG; and one of faculty members, chosen by the Faculty Committee on Committees. The Chair of the Student Panel will be selected by the ASG President, and the Chair of the Faculty Panel will be selected by the Chair of the Campus Faculty.

5. When an investigation by a Hearing Committee becomes necessary, the Committee will be appointed immediately by the Contact Committee. The Hearing Committee will be composed of three students and of four faculty members, chosen to avoid obvious bias or partiality. The coordinator of the Contact Committee will call the initial meeting of the Hearing Committee to conduct an election of a chairperson from among the four faculty members and to review general information and results of any preliminary investigation.

6. Either party to the dispute may ask another member of the University community to attend the hearings and may ask any member of the University community to provide relevant information. At the end of its investigation, which, if possible, should be completed within 20 working days after its first meeting, the Hearing Committee will submit its decision to both parties.

7. If the decision is not acceptable to either the student or the instructor, that person may appeal in writing to the Provost/Vice Chancellor of Academic Affairs of the University. The Provost will review the Hearing Committee's written report and will forward a written recommendation to the student, the instructor, and the Chairperson of the Hearing Committee.

### ADVANCED-STANDING PROGRAMS

**Credit by Examination**

There are two ways a student enrolled at the University of Arkansas, Fayetteville, may establish undergraduate credit by examination in courses offered by the University: either through the University of Arkansas Credit by Examination Program (see the next section), or through approved national testing programs, such as the College Level Examination Program (CLEP), the Advanced Placement Program (AP), or the International Baccalaureate Program (IB).

Credit established by examination must be evaluated in terms of the specific program the student wishes to pursue. The decision regarding the appropriate application of such credit to a degree program will be made in each college or school. Credit established by examination will be applied to a degree program in the same manner as credit established in any other way. If credit is earned by examination, the mark of CR will be entered in the student's record. Grades are not assigned.

In certain instances, however, instead of actually receiving credit in semester hours, a student may receive advanced standing and be authorized to enroll for advanced courses in the subject matter area.

Credit by examination may not be used to satisfy minimum residency requirements as established by each college or school. Credit by examination is recorded only for students currently enrolled at the University of Arkansas, Fayetteville.

**University of Arkansas Program**

The following conditions apply to the departmental programs for credit by examination:

1. The student must apply for such examination using forms available in the academic dean or department office. Permission to take the examination must be obtained from the faculty of the department offering the course. The faculty of each department is responsible for designating the courses in that department that may be challenged by examination.
2. The appropriate department or college offering the course will designate and administer the examination.
3. A passing grade on the examination must be “B” or above. A second trial for credit by examination in that course will not be permitted.
4. A $25 credit by examination fee will be assessed per course.

**National Testing Programs**

When credit by a national examination is granted, the student's academic record will list the score used as a basis for credit as well as the type of examination used to establish credit, such as CLEP subject examination or general examination, AP examination or IB examination.

Credit is awarded on the basis of official score reports, which must be sent by the national testing service directly to the Registrar's Office, 146 Silas H. Hunt Hall, University of Arkansas, Fayetteville, AR 72701. Credit also may be awarded on the basis of scores posted on an official university or college transcript, provided the type of examination is included. In all cases, minimum score requirements as established by the University of Arkansas, Fayetteville, must be met.

Approval has been granted to award credit for the following national testing programs:

**College Level Examination Program (CLEP) – see page 45**

The University of Arkansas is a CLEP testing center and is authorized to administer CLEP examinations both on a national basis and on an institutional basis. However, CLEP examinations may be taken at scheduled times at any national test center, and the results sent to the University of Arkansas. The test center code number and score recipient code number for the University of Arkansas is 6866. For information or to make application, write Testing Services, 713 Hotz Hall, University of Arkansas, Fayetteville, AR 72701, or telephone 479-575-3948.

Approval has been granted by the appropriate governing body, upon recommendation of the academic department, to award credit in the following courses by the use of CLEP examinations. Minimum scores for the paper-based version and the new computer-based version were established by the departments of the subject areas concerned.

Please note that minimum scores for credit for computer-based CLEP exams may differ from paper-based CLEP examinations.

**Advanced Placement Program (AP) – see courses on page 49**

The Advanced Placement (AP) Program of the College Entrance Examination Board gives students the opportunity to pursue college-level studies while still in high school and, with an appropriate score on an AP exam, to
receive advanced placement and/or credit upon entering the University. The AP examinations are offered annually by high schools that participate in this program. The appropriate UA governing body, upon recommendation of the academic department, has authorized credit and/or placement for students who present qualifying scores in the AP courses listed on page 49.

**International Baccalaureate Program (IB)**

The International Baccalaureate (IB) program is a comprehensive and rigorous two-year high school curriculum offered in the United States and in 72 countries around the world. The IB program provides students with a balanced education, facilitates geographic and cultural mobility, and promotes international understanding through a shared academic experience. The IB program gives students the opportunity to pursue college-level studies while in upper secondary school and to receive credit for final examinations upon entering the University.

The IB examinations are offered annually, usually in May, by high schools participating in this program. Students seeking credit for examinations must request that final, official IB transcript of certificate or diploma results be sent by mail to the Registrar’s Office, 146 Silas H. Hunt Hall, University of Arkansas, Fayetteville AR 72701. These materials may be requested from International Baccalaureate North America, 200 Madison Avenue, Suite 2007, New York, NY 10016, telephone: 212-696-4464.

Approval has been granted by appropriate academic departments to award credit in the following courses. The minimum scores were established by the departments of the subject areas concerned.

<table>
<thead>
<tr>
<th>International Course</th>
<th>UA Course</th>
<th>Score (Higher Level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>ANTH 1023</td>
<td>4-7 HL</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL 1543/1541L BIOL 1543H/1541M</td>
<td>4,5 HL 6,7 HL</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1103/1101L &amp; CHEM 1123/1121L</td>
<td>5-7 HL</td>
</tr>
<tr>
<td>Computer Science</td>
<td>CSCE 2013 &amp; CSCE 3143 Pending departmental examination</td>
<td>4-7 HL</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON 2013 &amp; ECON 2023</td>
<td>5-7 HL</td>
</tr>
<tr>
<td>English</td>
<td>ENGL 1013 ENGL 1023</td>
<td>5-7 HL 6,7 HL</td>
</tr>
<tr>
<td>Geography</td>
<td>GEOG 1123</td>
<td>5-7 HL</td>
</tr>
<tr>
<td>History (U.S.)</td>
<td>HIST 2003 or 2013 HIST 2003 &amp; 2013</td>
<td>4 HL 5-7 HL</td>
</tr>
<tr>
<td>History (World)</td>
<td>HIST 1003 &amp; 1013 HIST 1113H &amp; 1123H</td>
<td>4,5 HL 6,7 HL</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Up to 8 hours possible (To be determined by the Math Department</td>
<td>5-7 HL</td>
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<tr>
<td>Philosophy</td>
<td>PHIL 2003 PHIL 2003H</td>
<td>4,5 HL 6,7 HL</td>
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<tr>
<td>Physics</td>
<td>PHYS 2033/2031L PHYS 2033/2031L</td>
<td>4,5 HL</td>
</tr>
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<td>Psychology</td>
<td>PSYC 2003</td>
<td>4-7 HL</td>
</tr>
<tr>
<td>AP Examination</td>
<td>UA Course</td>
<td>Minimum Score</td>
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<tr>
<td>Art History</td>
<td>ARHS 1003H &amp; ARHS 2913 &amp; ARHS 2923</td>
<td>5C</td>
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<tr>
<td>Biology</td>
<td>BIOL 1543H/1541M</td>
<td>3P</td>
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<td></td>
<td>BIOL 1543/1541L</td>
<td>4C</td>
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<td></td>
<td>BIOL 1543H/1541M</td>
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<tr>
<td>Calculus AB</td>
<td>MATH 2554</td>
<td>3C</td>
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<td></td>
<td>MATH 2554H</td>
<td>5C</td>
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<tr>
<td>Calculus BC</td>
<td>MATH 2554 &amp; MATH 2564</td>
<td>3C</td>
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<td>MATH 2554H &amp; MATH 2564H</td>
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<tr>
<td>AB Subscore</td>
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<td>Chemistry</td>
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<td>4C</td>
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<td>CHEM 1103/1101L &amp; CHEM 1123H/1121M</td>
<td>5C</td>
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<tr>
<td>Computer Science A</td>
<td>CSCE 1023/CSCE 1021L</td>
<td>4C, 5C</td>
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<td>Computer Science AB</td>
<td>CSCE 1123/CSCE 1121L</td>
<td>4C, 5C</td>
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<td>English Composition</td>
<td>ENGL 1013 (exempt)</td>
<td>3E</td>
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<td>Literature or English</td>
<td>ENGL 1023 ENGL 1023H</td>
<td>5C</td>
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<tr>
<td>Language and Composition</td>
<td>ENGL 1013 ENGL 1013H</td>
<td>4C, 5C</td>
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<td>Environmental Sciences</td>
<td>ENSC 1003</td>
<td>3C</td>
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<tr>
<td>European History</td>
<td>HIST 1013</td>
<td>3C</td>
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<tr>
<td>French Language</td>
<td>FREN 1013</td>
<td>2Pq, 3C</td>
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<td></td>
<td>FREN 2003</td>
<td>4C</td>
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<tr>
<td></td>
<td>FREN 2013</td>
<td>5C</td>
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<tr>
<td>French Literature</td>
<td>FREN 2013</td>
<td>2Pq</td>
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<tr>
<td>German Language</td>
<td>GERM 1013</td>
<td>2Pq, 3C</td>
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<td></td>
<td>GERM 2003</td>
<td>4C</td>
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<tr>
<td></td>
<td>GERM 2013</td>
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<tr>
<td>Government and Politics: Comparative</td>
<td>PLSC 2013</td>
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<tr>
<td>Government and Politics: U.S.</td>
<td>PLSC 2003 PLSC 2003H</td>
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<tr>
<td>Human Geography</td>
<td>GEOG 1123</td>
<td>4C</td>
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<tr>
<td>Latin: Virgil</td>
<td>LATN 1013</td>
<td>2 Pq, 3C</td>
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<td></td>
<td>LATN 2003</td>
<td>4C</td>
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<tr>
<td></td>
<td>LATN 2013</td>
<td>5C</td>
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<tr>
<td>Latin: Literature</td>
<td>LATN 1013</td>
<td>2 Pq, 3C</td>
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<td></td>
<td>LATN 2003</td>
<td>4C</td>
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<tr>
<td></td>
<td>LATN 2013</td>
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<td>Macroeconomics</td>
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<td>Microeconomics</td>
<td>ECON 2023</td>
<td>4C</td>
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<tr>
<td>Music Theory</td>
<td>MUTH 1603 &amp; MUTH 1621</td>
<td>2Pq, 3Cq, 4C</td>
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<td></td>
<td>MUTH 1003</td>
<td>2Cq, 3C</td>
</tr>
<tr>
<td>Physics B</td>
<td>PHYS 2013/2011L &amp; PHYS 2033/2031L</td>
<td>3C</td>
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<tr>
<td>Physics B with Calculus AB or BC score of 3</td>
<td>PHYS 2054/2050L PHYS 2033/2031L PHYS 2054H/2050M PHYS 2033/2031L</td>
<td>3 Cq, 4C, 5C</td>
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<td>Physics C Mechanics</td>
<td>PHYS 2054</td>
<td>3 Cq, 4C, 5C</td>
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<td>Physics C, E &amp; M</td>
<td>PHYS 2074</td>
<td>3 Cq, 4C, 5C</td>
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<td>Spanish Language</td>
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<td>2 Pq, 3C</td>
</tr>
<tr>
<td></td>
<td>SPAN 2003</td>
<td>4C</td>
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<tr>
<td></td>
<td>SPAN 2013</td>
<td>5C</td>
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<tr>
<td>Spanish Literature</td>
<td>SPAN 2013</td>
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<tr>
<td>Statistics</td>
<td>STAT 2303</td>
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<tr>
<td></td>
<td>STAT 2023</td>
<td>4C</td>
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<td>Studio Art: Drawing</td>
<td>ARTS 1003</td>
<td>3C</td>
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<td></td>
<td>ARTS 1003 or ARTS 1013</td>
<td>5C</td>
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<tr>
<td>Studio Art: 2D Design</td>
<td>ARTS 1003</td>
<td>3C</td>
</tr>
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<td></td>
<td>ARTS 1003 or ARTS 1313</td>
<td>5C</td>
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<tr>
<td>Studio Art: 3D Design</td>
<td>ARTS 1003</td>
<td>3C</td>
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<td></td>
<td>ARTS 1003 or ARTS 1323</td>
<td>5C</td>
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<tr>
<td>U.S. History</td>
<td>HIST 2003 or HIST 2013</td>
<td>3C</td>
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<tr>
<td>World History</td>
<td>HIST 1123</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>HIST 1123H</td>
<td>5C</td>
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</tbody>
</table>

Symbols for placement and credit: **P** = placement; **Pq** = qualified placement (student may be placed in an advanced course, with credit awarded for prerequisite courses upon satisfactory completion, subject to departmental review); **C** = credit; **Cq** = qualified credit (placement and credit subject to departmental review).

1 Credit will be awarded upon satisfactory completion of a junior or senior-level economic course.

2 Students must pass a departmental test to receive credit.

3 To receive credit for courses preceding the course for which AP credit has been granted, students must enroll in and complete with a grade of “C” or higher, that course which follows in sequence the course for which AP credit was granted.

4 At most, 3 hours credit allowed for AP Statistics.
Academic Facilities and Resources

UNIVERSITY LIBRARIES

The library system of the University of Arkansas, Fayetteville, is composed of the David W. Mullins Library (the main research facility on campus) and four branch libraries: the Robert A. and Vivian Young Law Library, the Fine Arts Library, the Chemistry and Biochemistry Library, and the Physics Library. The combined holdings of the libraries total over 1.7 million volumes of books and bound periodicals and over 5.5 million items in microform. The Libraries currently receive over 18,000 separate journal and serial publications. Other resources in the collections include over 20,000 audio and visual materials, and several thousand maps, electronic databases (indexes and full text), and manuscripts.

The University Libraries maintain membership in the Greater Western Library Alliance (GWLA), the Center for Research Libraries (CRL), the Coalition for Networked Information (CNI), Amigos Library Services, and the state consortium ARKLink. Through OCLC, the libraries share cataloging and interlibrary loan information with thousands of libraries all over the world. The University Libraries' holdings are cataloged in the InfoLinks system. Currently enrolled students, faculty and staff can access more than 200 reference databases, thousands of electronic journals, and InfoLinks from any computer with an Internet connection via the Libraries’ Web page, available through the University home page or directly at http://libinfo.uark.edu.

The public may use materials, services, and resources of the University Libraries on-site. Currently enrolled students, appointed faculty and staff, and approved borrowers with a valid University ID card may check out materials through the libraries’ convenient electronic checkout system. The “view your own record” feature of this system allows patrons to check their library records, including the status of checked out items. Materials may be renewed and requested for hold through the automated system. Loan periods vary according to the type of material and circulation policies of the department or branch library, which can be found at the main Access Services Desk or through the library home page. Items not owned by the University Libraries may be obtained through interlibrary loan by completing the online registration and request forms. Requested items in electronic format will be sent directly to desktops; physical items will be held for pick-up at the Access Services Desk.

The Reference Department assists users in locating and using library resources. Reference librarians are ready to help students navigate InfoLinks and the numerous electronic databases. In addition, librarians offer orientation sessions and lectures on research methods to classes and groups upon request, and research consultations to individuals by appointment.

The University Libraries have had official United States government depository status since 1907. The Federal Depository Library Program provides free public access to U.S. government information by distributing information products from Federal agencies to depository libraries throughout the nation. Titles are distributed in paper, microfiche, or electronic (Internet, CD-ROM, DVD) formats and are arranged according to the Superintendent of Documents classification numbering system (SuDoc). The Government Documents Department has also been a depository for Arkansas state publications since 1993. The Department manages the University Libraries’ maps collection and GIS (Geographic Information Systems) program, including a public GIS workstation equipped with ArcGIS Desktop Suite.

The Libraries’ Special Collections Department acquires and preserves material for research in the history, literature, and culture of Arkansas and surrounding regions. Researchers have access to a rich assortment of books, pamphlets, periodicals, photographs, maps, and original manuscript collections to support their work.

For information concerning collections and services, as well as information on reserve reading policies, computer laptop loans for in-house use, and group study rooms, please inquire at (479) 575-4104. For inquiries regarding seminar rooms, gifts and donations, or any other library matter, please contact the Dean’s Office at (479) 575-6702.

QUALITY WRITING CENTER

The Quality Writing Center provides one-on-one tutorials for students, faculty, and staff who want to improve their writing. Clients make appointments via the center’s Web-based scheduling system for face-to-face or online tutorials.

Graduate tutors of the Quality Writing Center, who help clients with any writing project, work in Kimpel and Gregson Halls. The center also has a staff of undergraduate peer tutors trained to assist students with freshman composition assignments. Peer tutors are available for walk-in tutoring, days and evenings in five locations across campus. Quality Writing Center tutors employ non-directive approaches during sessions, allowing students to maintain ownership of their writing and to control the important editorial decisions that improve their drafts. The tutors are trained to provide assistance to students at any stage of the writing process: brainstorming, pre-writing, outlining, rough-drafting, and revising.

The center’s Web site at http://www.uark.edu/write has 40 downloadable handouts covering a wide variety of composition and grammar issues. The site also has information on upcoming workshops by the Quality Writing Center and online tutoring available during holiday and term breaks.
COMPUTING FACILITIES AND RESOURCES

University Information Technology Services supports research, academic and administrative computing activity on the UA campus. Computer operations are maintained to provide access to computing facilities and resources 24-hours a day, seven days a week.

A variety of host systems and servers are available for academic use. The primary mail and messaging server on campus is mail.uark.edu. E-mail is browser-based and can be checked from any computer with an Internet connection by going to http://uamail.uark.edu/ or http://mail.uark.edu. In addition, users can choose to use e-mail clients such as Outlook, Eudora, Pine, Thunderbird, and Mac OS X Mail, all of which are supported. The primary server for academic and research computing is comp.uark.edu, a Sun Fire E2900 server, using the Unix operating system Solaris. Comp supports statistical packages (SAS, SPSS, MATLAB), programming languages (C, C++, FORTRAN), e-mail software (Pine), and other Internet applications. Personal home pages may also be developed on the comp server. All students are automatically assigned UARK accounts (e-mail username and password) on mail.uark.edu, comp.uark.edu and may use their e-mail username and password to access other student-related applications, such as ISIS and logging in to the General Access Computing Labs.

A variety of other servers provide support for administrative and academic computing. These include an IBM e890 mainframe for administrative computing for human resources and business processing systems. Other servers provide support for data warehousing, Web services, allowing them to access PC and Mac-based software though these servers. Additionally, the General Access Computing Labs maintain software via networked servers, allowing access to the same products in multiple labs. Faculty may also access the administrative computing systems for advising purposes, roster generation, and grade reporting. Host peripherals include disk storage, tape systems, and laser printing.

UARKnet, the campus backbone network, is managed by University IT Services. This network enables communication among networks, computers, and servers on campus, as well as on the Internet and Internet2, of which the University is a member site. The University is also on the ground floor of ARE-ON, considered the highest speed research network in the nation. Virtually all departments, as well as all laboratories, are connected to the campus network. Network access is also available via dial-up modem connections. Dial-up access ID and passwords are the same as e-mail IDs and passwords that students use to gain access to other systems.

The General Access Computer Labs offer approximately 300 network-attached PC and Mac computers for use by UA students, faculty, and staff. These labs are located in the Arkansas Union, Administrative Services Building, Mullins Library, and in the Northwest Quad. The labs offer day, evening, and weekend hours. In addition to being Internet-connected, a variety of products are installed on these machines, including Internet browsers, word processors (MS Word and WordPerfect), databases (MS Access), and spreadsheet programs (MS Excel). Laser printing is available from all supported software. Scanning facilities are available in the Administrative Services Building and the Arkansas Union labs, and color printing is available in the Union. Laptops are available for checkout in Mullins Library and at the Student Technology Center, located in the Arkansas Union. These laptops can be used standalone or with network access via the wireless network available campuswide. Personal laptops may also connect to the network through public drops located in Mullins and the Union, as well as through the campus wireless network.

University IT Services offers free, non-credit training courses every month on a variety of computer and Internet-based topics, including operating systems, e-mail, word processing, Windows Sharepoint, Web page development, presentation tools, and many others. Students can also refer to the University IT Services Web site for a more comprehensive list of training courses. Training by request is also available.

The Student Technology Center, provided by the Student Technology Fee and University IT Services, is a walk-in computing help center offering laptops and projectors for checkout, as well as high-end multimedia direction and assistance. Laptops are configured for wireless Internet access, and carrels are available with desktop computers. Laptops and desktops are loaded with advanced, multimedia software for layout, graphics design, and Web site development, which students can learn to use with assistance from staff at the Student Technology Center.

The MultiMedia Resource Center (MMRC) provides access and training for computers and applications that can be used to develop programs and classroom presentations. In addition, the MMRC features a training lab, including Internet-connected computers equipped for video conferences and distance education applications. The MMRC also has presentation equipment and a portable IP-based video-conferencing unit available for checkout. The Research Data Center provides researchers with assistance in data design and analysis and with support for other needs, such as training and access to numeric data and assistance in using Web-based data and analyzing survey results. Furthermore, faculty can refer students to the MMRC to learn high-end computing techniques, such as podcasting, video presentation, and much more.

University IT Services is located in the Administrative Services Building (ADSB), 155 Razorback Road. University IT Service specialists offer assistance with operating systems, application programs, virus scanning, modern communications, Internet tools, research projects, general troubleshooting, and more. For more information, phone the UITS Help Desk at 479-575-2905, from 7 a.m. to 6 p.m. Monday-Thursday, and until 5 p.m. Friday, or visit the University IT Web site at http://uits.uark.edu/.

TESTING SERVICES

Testing Services is charged with the responsibility of administering standardized academic tests at the University of Arkansas. The office administers such national tests as the ACT Assessment, the Law School Admission Test (LSAT), the Graduate Management Admission Test (GMAT), the Graduate Record Examination (GRE), and CLEP exams in addition to others throughout the year. National testing companies determine testing dates and deadlines. Testing Services also offers a number of institutional tests such as the Test of English as a Foreign Language (TOEFL), the Spoken Language Proficiency Test (SLPT), and the Math Placement Test. These tests are scheduled at various times as demand dictates. Test fees vary depending on the test.

To obtain a registration bulletin or information about exam dates and deadlines, please stop by 700 Hotz Hall or call 479-575-3948.
University Centers and Research Units

Research programs are the means by which the University contributes to the generation as well as to the preservation and dissemination of knowledge. With nationally recognized programs in many areas and funding from government, industry, and other private sources, the research effort of the University is strong and diversified. Among the many advantages of attending the University of Arkansas is the accessibility of faculty members and their enthusiasm for including undergraduates in the research process. Such collaboration can enhance students’ educational experiences by providing practical training in research and lab techniques, by engaging students in the subject or process they’re studying, and by fostering a mentoring relationship between faculty and student researchers. It is not uncommon for students to contribute significant and meaningful insights to their field of study through the research process.

The University encourages all undergraduates to pursue research in their areas of academic interest. Students who wish to engage in research of any kind should seek the guidance of their advisers and professors to identify research teams and projects. In addition to the extensive work performed by faculty through individual and team efforts in academic departments, special programs of research are conducted by faculty members and staff in many associated University divisions. The University invites students to learn more about these divisions and the research opportunities they offer by visiting the Web sites or by contacting the individuals listed below.

**AGRICULTURAL EXPERIMENT STATION**
http://aaes.uark.edu/
Richard A. Roeder, associate director
AFLS E108
479-575-2120

**ARKANSAS ARCHEOLOGICAL SURVEY**
http://www.uark.edu/campus-resources/archinfo/
Thomas Green, director
ARAS 147
479-575-3556

**ARKANSAS CENTER FOR SPACE AND PLANETARY SCIENCES**
http://spacecenter.uark.edu/
Derek Sears, director
MUSE 202
479-575-7625
csaps@uark.edu

**ARKANSAS COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT**
http://biology.uark.edu/Coop/home/coophome.htm
David Krementz, unit leader
SCEN 632
479-575-6709
tg138@uark.edu

**ARKANSAS LEADERSHIP ACADEMY**
http://www.arkansasleadershipacademy.org/
Beverly Elliott, director
WAAK 300
479-575-3030

**ARKANSAS WATER RESOURCES CENTER**
http://www.uark.edu/depts/awrc/
Ralph K. Davis, director
OZAR 112
479-575-4403
awrc@uark.edu

**BEESIE BOEHM MOORE CENTER FOR ECONOMIC EDUCATION**
http://ceed.uark.edu/home/default.htm
Rita Littrell, director
RCED 217
479-575-2855

**CENTER FOR ADVANCED SPATIAL TECHNOLOGIES**
http://www.cast.uark.edu/
Fred Limp, director
OZAR 12
479-575-6159
info@cast.uark.edu

**CENTER FOR ARKANSAS AND REGIONAL STUDIES**
http://www.uark.edu/misc/carsinfo/
Robert Cochran, director
MAIN 506
479-575-7708
CENTER FOR BUSINESS AND ECONOMIC RESEARCH
http://cber.uark.edu/
Kathy Deck, director
WJWH 545
479-575-4151
cberinfo@cavern.uark.edu.

CENTER FOR COMMUNICATION AND MEDIA RESEARCH
http://www.uark.edu/depts/comm/deptinfo/facilities.htm
Robert H. Wicks, director
KIMP 417
479-575-3046
rwicks@uark.edu

CENTER FOR ENGINEERING LOGISTICS AND DISTRIBUTION
http://celdi.ineg.uark.edu/
John R. English, executive director
BELL 4207
479-575-2124

CENTER FOR MANAGEMENT AND EXECUTIVE EDUCATION
http://cmed.uark.edu/
Therese Steifer, director
RCED 140
479-575-2856
cmed@walton.uark.edu

CENTER FOR MATHEMATICS AND SCIENCE EDUCATION
Lynne Hehr, director
OZAR 106
479-575-3875

CENTER FOR PROTEIN STRUCTURE AND FUNCTION
http://www.uark.edu/depts/cheminfo/uarkchem/protein/index.html
Frank Millett and Roger Koeppe, co-directors
CHEM 119
479-575-4601

CENTER FOR RETAILING EXCELLENCE
http://cre.uark.edu/
Claudia B. Mobley, director
WJWH 538
479-575-2643

CENTER FOR SEMICONDUCTOR PHYSICS IN NANOSTRUCTURES
http://www.cspin.net/
Greg Salamo, co-director
PHYS 226
479-575-5931

CENTER FOR SENSING TECHNOLOGY AND RESEARCH
http://www.uark.edu/depts/anylchem/cstar/sens.html
Charles Wilkins, director
CHEM 119
479-575-5198
cstar@uark.edu

CENTER FOR SOCIAL RESEARCH
http://www.uark.edu/depts/social/CSR.htm
William Schwab, director
Main 211
479-575-3206
bschwab@uark.edu

CENTER FOR THE STUDY OF REPRESENTATION
http://plsc.uark.edu/csr/
Brinck Kerr, director
MAIN 428
479-575-3356

CENTER FOR THE UTILIZATION OF REHABILITATION RESOURCES FOR EDUCATION, NETWORKING, TRAINING AND SERVICE
http://www.rcep6.org/
Jeanne Miller, director
105 Reserve St., Building 35
Hot Spring, AR 71902
501-623-7700
Rehabilitation Research and Training Center for People who are Deaf or Hard of Hearing
http://www.uark.edu/deafrtc
Douglas Watson, project director
26 Corporate Hill Drive
Little Rock, AR 72205
501-686-9691 (v/tty)

CENTER OF EXCELLENCE FOR POULTRY SCIENCE
http://www.poultryscience.uark.edu/poultry.html
Walter Bottje, director
POSC 114
479-575-4952

COMMUNITY AND FAMILY INSTITUTE
http://sociology.uark.edu/1876.htm
Kevin Fitzpatrick, director
MAIN 211
479-575-3777
kfitzpa@uark.edu

DAVID AND BARBARA PRYOR CENTER FOR ARKANSAS ORAL AND VISUAL HISTORY
http://libinfo.uark.edu/specialcollections/ pryorcenter/
Kris Katrosh, director
MULN 403
479-575-6829

DIANE D. BLAIR CENTER OF SOUTHERN POLITICS AND SOCIETY
http://www.uark.edu/ua/tshield
Todd Shields, director
MAIN 428
479-575-3356
FULBRIGHT INSTITUTE OF INTERNATIONAL RELATIONS
http://www.uark.edu/~fiir/
Donald R. Kelley, director
FIIR
479-575-2006

GARRISON FINANCIAL INSTITUTE
Wayne Lee, director
RCED 209

GARVAN WOODLAND GARDENS
http://www.garvangardens.org/
Bob Byers, Garden Director
550 Arkridge Road, PO Box 22240
Hot Springs National Park, AR 71913
1-800-366-4664
gardeninfo@garvangardens.org

GREAT EXPECTATIONS OF ARKANSAS
http://www.geaonline.org/
Marie Parker, director
WAAAX 311
479-575-5404

HEALTH EDUCATION PROJECTS OFFICE
http://www.uark.edu/depts/hepinfo/hep.html
Michael Young, director
HPER 326A
479-575-5639

HIGH DENSITY ELECTRONICS CENTER (HiDEC)
http://www.hidec.engr.uark.edu/
Vijay Varadan, director
HiDEC/ENRC 700
479-575-4627

HUMAN PERFORMANCE LABORATORY
http://www.uark.edu/admin/hplweb/
Ro DiBrezzo, director
HPER 321
479-575-6762

INFORMATION TECHNOLOGY RESEARCH CENTER
http://itrc.uark.edu/
Eric Bradford, director
JPHT 409
479-575-4261

INSTITUTE OF FOOD SCIENCE AND ENGINEERING
http://www.uark.edu/depts/ifse/
Justin R. Morris, director
FDSC Farm
479-575-4040

INTERNATIONAL CENTER FOR THE STUDY OF EARLY ASIAN
AND MIDDLE EASTERN MUSICS
http://www.uark.edu/ua/eeam
Rembrandt Wolpert, director
MUSC 201
479-575-4701
eam@cavern.uark.edu

KING FAHD CENTER FOR MIDDLE EAST
AND ISLAMIC STUDIES
http://www.uark.edu/depts/mesp/
Thomas Paradise, interim director
MAIN 202
479-575-4157

MACK-BLACKWELL NATIONAL RURAL TRANSPORTATION
STUDY CENTER
http://www.uark.edu/depts/intagpro/ru_trans.html, or
http://www.mackblackwell.org/
Melissa Tooley, director
BELI 4190

NATIONAL AGRICULTURAL LAW CENTER
http://www.NationalAgLawCenter.org/
Doug O'Brien and Harrison Pitman, co-directors
WATR 107
479-575-7646
nataglaw@uark.edu

NATIONAL OFFICE OF RESEARCH ON MEASUREMENT
AND EVALUATION SYSTEMS
http://normes.uark.edu
Sean Mulvenon, director
WAAAX 302
479-575-5593
orme@cavern.uark.edu

OFFICE FOR EDUCATION POLICY
http://www.uark.edu/ua/oep/
Gary Ritter, director
GRAD 201
479-575-3773
oep@uark.edu

OFFICE FOR STUDIES ON AGING
http://www.uark.edu/aging/
Ro DiBrezzo and Barbara Shadden, co-directors
HPER 321X
479-575-5262
aging@cavern.uark.edu

RESEARCH ADVOCACY NETWORK
http://elcf.uark.edu/1547.htm
Les Carnine, director
GRAD 245
479-575-8465
SMALL BUSINESS DEVELOPMENT CENTER
http://sbdc.waltoncollege.uark.edu/
Larry Brian, director
RCED 210
479-575-5148

SPEECH AND HEARING CLINIC
http://www.uark.edu/depts/coehp/SPCL.htm
Barbara Shadden, director
SPCL 201
479-575-4509

SUPPLY CHAIN MANAGEMENT RESEARCH CENTER
http://scmr.uark.edu/
Jim Crowell, director
WJWH 538
479-575-6107

SURVEY RESEARCH CENTER
http://www.uark.edu/admin/src/
Molly Longstreth, director
HOTZ 123
479-575-4222

TERRORISM RESEARCH CENTER
http://trc.uark.edu/
Brent L. Smith, director
MAIN 228
479-575-3401
bls@uark.edu

UNIVERSITY OF ARKANSAS COMMUNITY DESIGN CENTER
http://www.uark.edu/depts/uacdc/
Stephen Luoni, director
104 N. East Ave.
Fayetteville, AR 72701
uacdc@uark.edu

UNIVERSITY OF ARKANSAS ECONOMIC DEVELOPMENT INSTITUTE
http://uaedi.cast.uark.edu/
Otto J. Loewer, director
226 Engineering Hall
479-575-5118
VISION STATEMENT

The Division of Student Affairs will maximize the University of Arkansas Experience by challenging, supporting, and encouraging each student to become intellectually engaged, more self-aware, and strongly bonded to the University.

Mission Statement

The Division of Student Affairs mission is to help students achieve their goals through the provision of high quality support services and comprehensive programs that stimulate, enhance, and extend student learning; empowering University of Arkansas graduates to become active, engaged citizen leaders in Arkansas and throughout the world.

Core Values

Members of the Division of Student Affairs believe that learning, both inside and outside the classroom, is central to the University of Arkansas experience and the Division of Student Affairs is a significant partner in the development of a campus learning community. The members recognize that this campus learning community is impacted by the individual’s unique learning style and life experience. They believe the values listed below strengthen and enrich this learning environment. The division’s members:

- Are student centered
- Are an inclusive community
- Treat all individuals with dignity and respect
- Encourage and model civility in all relationships
- Provide friendly, helpful, and responsive service
- Embrace their role as scholars and educators
- Present the highest ethical standards based on trust, honesty, and integrity
- Are committed to the pursuit of professional excellence
- Strive for the acquisition and use of knowledge
- Act as partners and collaborators in all endeavors

Strategic Goals

- Foster the development of an inclusive community
- Enhance student learning
- Promote professional and personal development
- Increase and responsibly manage resources
- Promote innovative programs and services
- Advocate rights and responsibilities
- Encourage the application and use of new and emerging technologies

The Vice Chancellor for Student Affairs administers the departments of the Division of Student Affairs and provides leadership in the development of programs and services that supplement the classroom experience of students and enrich the quality of campus life. The Vice Chancellor serves as a liaison to other administrative offices, faculty, and student governing groups. The office is a central source of information concerning University policies and procedures affecting student life and co-curricular programs and services.

Students are encouraged to bring their concerns, questions, and ideas to the attention of the Vice Chancellor or the Associate Vice Chancellor/Dean of Students.

The office of the Associate Vice Chancellor/Dean of Students emphasizes student advocacy while broadening the development of services and programs that address a range of student and campus needs. Departments in the office are dedicated to developing exceptional programs and services that enhance the Arkansas Experience and enrich the quality of student and campus life. Staff members are available and willing to assist with any problem or question a student, staff, or faculty member may have regarding student and campus life at the University of Arkansas. The office is available for the clarification of University policies and procedures, confidential consultation, formal academic grievances, personal and family crisis assistance for students, and referral to all campus and community services. The office also seeks to assist students and faculty members in cases of emergency or extenuating circumstances. Staff members are firmly committed to addressing the challenges and individual needs of the Arkansas family.

STUDENT SERVICES

The Enhanced Learning Center

The Enhanced Learning Center is designed to provide assistance to all University of Arkansas students in meeting their academic goals here and beyond. The center’s goal is for every University of Arkansas student who needs or wants academic assistance to participate in the programs and services of the center without hesitation or barrier. More than 4,000 students took advantage of the center’s programs last year including:

- Tutoring in a variety of subjects (math, the sciences, English, foreign languages, composition and other courses taught throughout the University);
- Supplemental instruction in math and the sciences;
- Study skills workshops;
- Individualized educational planning;
- Math and writing resources;
- Study rooms; and
- State-of-the-art computers with laptop checkout availability.
Student Support Services is designed to improve academic performance, increase student motivation, and facilitate transition from undergraduate to graduate education. Services provided include tutorial services; instruction in basic study skills; academic, financial, and personal counseling; assistance in obtaining financial aid; and assistance in admission and enrollment in graduate programs.

Student Support Services is located within the Enhanced Learning Center on the ground floor of Gregson Hall. Call 479-575-3546. For more details, visit the Student Support Services Web page at http://www.uark.edu/sss/.

Services for International Students

The Office of International Students and Scholars serves foreign students and scholars and enhances the global awareness of the UA community. The office provides pre-arrival assistance and a comprehensive orientation program for newly admitted international students each semester. Cross Cultural Mentors provide one-on-one contact and group activities for new international students during their first semester, assisting them in their adjustment to the academic community and the Fayetteville/Northwest Arkansas area. The office provides services such as immigration advising, employment authorization, non-resident tax filing assistance, and other programs and services that help students and scholars reach their academic and personal goals and make their time at the University of Arkansas more productive and enjoyable.

The office administers four outreach programs that give students an opportunity to learn about U.S. life and culture while enriching the community’s knowledge and appreciation of diverse populations and cultures. These are: the Friendship Family Program, which pairs students with local families who share American culture, daily life, and special activities with students; the Conversation Club program, which provides students with a small-group setting in which to practice conversational English with native speakers; the International Culture Team, a group whose members speak or share other skills and talents through presentations at community organizations, representing their home countries and cultures; and the Spouses Program, which brings together spouses of students and scholars to build friendships and introduce resources in the community that would benefit them.

The office sponsors various events including: the celebration of International Education Week each fall, and annual seminars for immigration attorneys. A number of registered student organizations specific to various country, culture, or language groups are linked with the office including the International Students’ Organization (ISO), a group for U.S. and international students, which organizes events such as the International Bazaar and an annual banquet.

The Office of International Students and Scholars is in Hokolme Hall, Room 104; phone 479-575-5003; fax 479-575-7084; e-mail iss@uark.edu; Web: http://iss.uark.edu.

University Ombuds Office

The University Ombuds Office provides an informal, impartial, and confidential means of conflict resolution to students and the campus community. It is the goal of the office to foster a culture of civility, safe and open dialogue, and to encourage cooperative problem resolution. When a student contacts the office to address a specific conflict, an ombud will: listen to the student’s concerns, provide facilitation or mediation services when appropriate, value diversity, hear all perspectives, assist the student in considering options for resolution, and to encourage cooperative problem resolution. When a student contacts the office to address a specific conflict, an ombud will: listen to the student’s concerns, provide facilitation or mediation services when appropriate, value diversity, hear all perspectives, assist the student in considering options for resolution, and remain impartial to all parties involved. Services are confidential, and no identifying records are kept.

Educating the University community and maintaining effective processes are important components of preventing conflicts from escalating and can help enable University students and employees to effectively address adversity themselves. Training is available in alternative conflict resolution techniques, theory, and practice. Workshops are customized to fit specific needs. Recommendations may be made to administrators to improve processes that may
Greek Life

The Office of Greek Life facilitates the educational process and provides resources related to programs that promote the growth and development of students affiliated with fraternities and sororities on campus. The overall mission is to enhance the academic, cultural, moral, and social development of students in Greek organizations; provide training in leadership and other personal and social skills; promote student involvement in extracurricular activities and community service projects; and promote Greek Life as a productive and viable lifestyle on campus. Programs such as Recruitment, Greek Getaway, Greek Life Facilitators, and Greek Summit are coordinated by the Office of Greek Life, the Interfraternity Council, the National Pan-Hellenic Council, and the Panhellenic Council.

The Interfraternity Council (IFC), National Pan-Hellenic Council (NPHC), and the Panhellenic Council (PHC) are the governing bodies for 11 national sororities and 16 fraternities. The officers and representatives of IFC, NPHC, and PHC work with the Office of Greek Life to provide positive programs and leadership opportunities to the members of the Greek organizations. The Greek Life office is in the Arkansas Union A697; phone 479-575-5001 or fax 479-575-3531; Web: http://uagreeks.uark.edu/.

Multicultural Center

The Multicultural Center enhances the student academic experience by preparing them for life in a rich and diverse society. The Multi-cultural Center is committed to providing an environment that promotes cross-cultural interaction among all students by collaborating with university and community constituents to create educational, cultural, and social programs.

The Multicultural Center can be used for educational programming, art displays, and cultural exhibits. Students are encouraged to take advantage of the student organizations within the Multicultural Center and the educational and entertainment resources that include laptop checkout, books, video and board games, and study areas. The Multicultural Center is located on the fourth floor of the Arkansas Union in Room 404. Contact information: 479-575-2064; Web: http://multicultural.uark.edu/.

Reasonable Accommodations for Students with Disabilities

The Center for Educational Access (CEA), 104 Arkansas Union, is the central campus resource for students who require reasonable accommodations in order to access the programs, services and activities offered through the University. CEA staff work in partnership with the individual student to communicate and facilitate any accommodation needs to faculty and staff. Accommodation determination is based on an analysis of medical or psychological documentation provided to the CEA by the student. Students must meet with one of the CEA staff to discuss their needs and provide such documentation before any accommodations can be granted.

To register for services or for more information, contact the Center for Educational Access, University of Arkansas, 104 ARKU, Fayetteville, AR 72701, phone 479-575-3104 (voice) or 479-575-3646 (TTY); e-mail: ada@uark.edu; Web: http://www.uark.edu/us/csd/.

Office of Community Standards and Student Ethics

The mission of the Office for Community Standards and Student Ethics (OCSSE) is to provide an equitable and effective educational system that promotes responsibility, individual growth, accountability, and student learning through community outreach, peer mentoring, and enforcement of the Code of Student Life. The office is designed to provide an equitable process for dealing with alleged infractions of University rules, regulations, and/or laws by students. This system is informal, non-adversarial, and intended to be a part of the total educational process. Students are encouraged to make responsible decisions and to be accountable for their actions. In addition, students who witness violations of the Code or who are victims of inappropriate or illegal behavior perpetrated by other students are encouraged to report such activity to the Office of Community Standards and Student Ethics.

Students who are interested in involvement with the All-University Judicial Board or the PEERS (Peers Educating Ethical Razorbacks) program should contact the director of the OCSSE at judicial@uark.edu. The All-University Judicial Board comprises faculty and students and is responsible for adjudicating cases of alleged student misconduct as outlined in the Code of Student Life. This is an advanced leadership opportunity for students who would like to gain valuable experience working with faculty on an Impartial peer review board. PEERS Is an advanced student leadership opportunity designed to promote leadership and ethics among University of Arkansas students. PEERS members give highly interactive and engaging presentations that challenge students to think and act with Integrity. For more Information regarding the Code of Student Life, please see the Student Handbook, available In the Administration Building, Room 325 or at http://www.uark.edu/ua/uaprod/handbook/. The Office of Community Standards and Student Ethics is in the Administration Building, Room 325, phone 479-575-5170; Web: http://www.uark.edu/ethics/.

First Year Experience Programs

First Year Experience Programs at the University of Arkansas is a collaborative effort developed to enhance the academic and social integration of incoming students through a variety of classroom and co-curricular activities. First Year Experience is designed to enhance both the academic and social integration of first-year students. Faculty and Student Affairs professionals work together to offer special assistance and promote skills designed to help students experience a fulfilling, rewarding, and successful first year at the University, and to assist them in reaching their ultimate goal of completing a degree.

First Year Experience Programs supports and collaborates on ten major initiatives: New Student Orientation, ROCK Camp, Hog W.I.L.D. Welcome Weeks, Academic Convocation/Burger Bash, Help-A-Hog, Fall Family Weekend and Spring Family Reunion, Parent Programs, Parent Partnership Association, First Year Experience Residence Halls and First Year Experience seminar courses. First Year Experience seminar courses are guided by an advisory board of Student Affairs professionals and First Year Experience course coordinators from each academic college. University of Arkansas executive administrators, faculty and staff members participate in these programs as speakers, mentors or through other means of engagement. By providing transitional support for incoming students, First Year Experience programs effectively promote the students’ academic growth and support the mission of the University.

First Year Experience Programs is in the Arkansas Union, Room A688; phone 479-575-5002; Web: http://fye.uark.edu/.

PRE-COLLEGE PROGRAMS

The Office of Pre-College Programs consists of eight programs, serving Arkansas’ brightest and best students who demonstrate the potential and desire to attend college. These programs are the Gifted and Talented Scholars and Summer Institute, Academy for Mathematics and Sciences, Educational Talent Search, College Project Talent Search, University Access Talent Search, Upward Bound, REAL Upward Bound, and Veterans Upward Bound. The
department also partners with Kauffman Scholars Inc. and KIPP: Delta College Preparatory School to offer College Residential Institute. All participants receive multifaceted services to assist them with developing the skills, information, and resources necessary for college success.

As an ongoing mission, Pre-College Programs actively solicits collaborative partnerships with businesses, communities at large, and various departments within Student and Academic Affairs. These efforts enrich the services and learning opportunities available to participants and provide possibilities for the expansion of programming. For additional information, visit the office at 200 Hotz Hall, call 479-575-3553, or contact the program online at http://precollege.uark.edu/.

Academy for Mathematics and Sciences
The Upward Bound Academy for Mathematics and Sciences serves students in grades 9-12 from Sebastian and Crawford counties in Arkansas. This college preparatory program for students excelling in the academic areas of math and science encourages post-secondary study in related career fields. The program includes a six-week residential component in the summer and an academic component year round. An integrated curriculum focusing on group and individual research projects in math, science, and engineering is supplemented with offerings in English, foreign language, literature, and computers. Monthly meetings composed of workshops and hands-on projects provide enhanced and ongoing student involvement throughout the year with the campus-based project. College tuition and credit is available to students bridging from their senior year in high school to college.

College Project, University Access and Educational Talent Search Programs
College Project, University Access and Educational Talent Search are early intervention projects. Serving 2,400 students in grades 6-12, the programs promote the skills and motivation necessary for successfully completing a baccalaureate degree. Emphasizing personal and career development, technological and academic skills, ACT readiness, and college preparatory workshops, the programs prepare students to meet their college entry goals. Academic monitoring and guidance counseling are incorporated to facilitate the progress of each student. Summer enrichment and campus-based events provide ongoing opportunities for institutional and faculty involvement.

Gifted & Talented Scholars and Summer Institute
The University of Arkansas Gifted and Talented Scholars program was established to acknowledge the best and brightest youth throughout Arkansas and surrounding states. Nominated by local educators, Gifted and Talented Scholars represent a select group of students, in grades 6-12, with exceptional academic ability and potential. The Gifted and Talented Scholars Summer Institute provides an intensive three-week residential experience for academically talented students completing the eighth and ninth grade. This advanced and educationally dynamic learning environment supplements all accelerated academic learning with a variety of extracurricular activities to address the social and affective needs of all participants.

Upward Bound and REAL
Upward Bound is designed to offer challenging precollege experiences to students who have the desire and ability to attend and complete a postsecondary education. Services are designed to develop the essential skills, study habits, and discipline necessary for success in high school and college. Upward Bound serves 71 students in grades 9-12, from participating schools in Benton and Washington counties. Participants commit to the program until high school graduation and participate in both a six-week summer residential program and an academic year component. Being curriculum-based, the program provides exposure to a wide variety of academic, cultural, and social opportunities, simulating a college experience. Upward Bound students completing their senior year of high school receive free tuition for up to six hours of college credit. A second Upward Bound program, R.E.A.L. (Reaching Educational Aspirations of Learners) serves 50 students in the Rogers and Springdale Public School districts.

Veterans Upward Bound
This program identifies and serves the unique needs of 120 eligible veterans from Northwest and Central Arkansas who have the academic potential and desire to enter and succeed in a post-secondary program of study. Eligible veterans have completed a minimum of 180 days of active duty in the military or Coast Guard and hold any discharge other than dishonorable. Services include tutoring; guidance counseling; assistance in filing financial aid and VA benefit forms; academic/career assistance; test preparation for entrance exams; and courses in English, Spanish, math, science, and computer technology. Courses are offered each semester.

College Residential Institute for Kauffman Scholars
Through a partnership with Kauffman Scholars Inc., the College Residential Institute for Kauffman Scholars simulates a college experience for 7th to 12th grade participants from Kansas City, Missouri and Kansas. The program is a collaborative effort with a number of academic and student affairs departments. Students engage in self-selected coursework with faculty facilitating the exploration of various college majors and career fields. All sessions emphasize the use of technology and are project-driven learning incorporating math, science and language arts.

Knowledge is Power Program (KIPP)
A partnership with the KIPP: Delta College Preparatory School in Helena, Arkansas, brings 9th and 10th grade students to campus to experience the college environment. This residential program simulates college by offering age-appropriate academic classes taught by professors, and social and cultural programs that expose students to a variety of activities on and off campus.

UNIVERSITY CAREER DEVELOPMENT CENTER
The UA Career Development Center provides a comprehensive career development program designed to meet the needs of the University of Arkansas community. The center assists students and alumni in the development of skills necessary for lifelong career management.

The center provides individual and group career advising sessions; a one-hour credit Career Decision-Making course; career planning and job search workshops; individual assistance with resume preparation and job interview skills; resources for experiential education opportunities; career interest assessments; a career resource library; and placement services.

UA Career Development Center staff members invite all UA students to become members of the Professional Development Institute, a nationally recognized career development resource. Designed for University of Arkansas students, the institute provides students a comprehensive plan enabling them to attain a level of career maturity necessary for job success.

Students are encouraged to begin working with the staff of the Career Development Center during their first year on campus. Advisers assist students in selecting a college major, obtaining a cooperative education or internship placement, and preparing for their job search or graduate/professional school application. A full-range of career fairs is offered each semester including all-campus fairs and individual industry-specific fairs.

Career Development Center staff members welcome opportunities to
Student Affairs

present career planning or job search information to students in the classroom and residence hall. There are valuable opportunities to develop strong professional relationships with the 300 to 400 corporate recruiters who visit the UA campus each year.

The University Career Development Center provides services and educational programs to students, alumni, former students, faculty, staff, and their families.

For further information, contact the University Career Development Center, ARKU 607, 479-575-2805, or visit our Web site at http://career.uark.edu/.

UNIVERSITY HEALTH CENTER

Pat Walker Health Center
The Pat Walker Health Center provides professional and comprehensive medical care, mental health care, health education, and health promotion for the University of Arkansas community, including students, faculty, and staff. Committed to physical, mental, spiritual, emotional, and social health, the highest standards of quality, and an appreciation of the value of each individual, the Pat Walker Health Center services and programs support the education and development of each individual.

Pat Walker Health Center services include:

Medical Services
Professional medical staff including physicians, nurse practitioners and registered nurses provide primary health care, as well as women’s health care. An allergy clinic and a travel immunization clinic are also available. The Pat Walker Health Center is particularly advantageous to the campus community with a comprehensive clinical laboratory, X-ray facilities, and a licensed pharmacy with both prescriptive and over-the-counter medications.

Counseling and Psychological Services
Counseling and Psychological Services (CAPS) provides a wide range of consultations to students, students’ partners, staff, and faculty of the University of Arkansas. Psychologists, social workers, and professional counselors work with students to solve problems, understand themselves, grow personally, and develop more satisfying relationships with friends and family. In addition to office consultations and therapy sessions, students have opportunities to participate in educational programs on campus as well as access to 24-hour emergency services for mental health crises.

Health Promotion and Education
A unique feature of the Pat Walker Health Center is the complete focus on the promotion of good health and prevention of negative health conditions. Professional health educators serve the campus community with wellness and prevention activities delivered in a variety of educational settings including everything from individual consultations to one-hour credit classes. Students benefit from the breadth of health and lifestyle topics addressed, which help them attain success in all aspects of their lives.

The Pat Walker Health Center opened at 525 North Garland Avenue in November 2004, with expanded services for the University of Arkansas community.

Students pay a per credit hour semester health fee that covers professional office visit charges. Student spouses are eligible for services and may pay the health fee. Services other than professional office visits are the responsibility of the patient and/or their health insurance plan. The University strongly recommends that all students have health insurance. A student health insurance policy endorsed by the Associated Student Government is available to all students, student spouses, and their dependent children. Students may enroll in this plan at the Pat Walker Health Center.

The Pat Walker Health Center welcomes inquiries about specific services at 479-575-4451; TTY 479-575-4124. More information is available on the Web at http://health.uark.edu/.

UNIVERSITY HOUSING

University Housing is committed to providing a quality living and learning environment that both challenges and supports the personal, social, and academic development of our residents and their diverse communities.

National research has shown that academic success in the first year and beyond is directly linked to residing in an on-campus residence environment. The University of Arkansas recognizes the benefits that students receive from living on campus their first year. Therefore, all single students who are admitted to the University with a freshmen classification and under 21 years of age are required to live on campus in a residence hall, or in their parent or legal guardian’s permanent home. Students who are admitted to the University of Arkansas as transfer students from another post-secondary institution, and who have completed at least 24 credit hours at that institution are not required to live on campus.

Requests for a newly admitted freshmen to live somewhere other than with parents or a legal guardian in their permanent home are not likely to be approved under most circumstances. Students planning to live with their parents or legal guardian, in their permanent home should complete the Living with Parent Verification Form or who wish to apply for an exemption to the University’s requirement for single freshmen to live on campus may refer to the information on the Housing Web site: http://housing.uark.edu/forms2/.

Residence Halls are managed by a full-time Resident Director who has completed a master degree program in higher education, counseling or a related degree. This individual is selected for his or her academic credentials and interest in helping others, as well as his or her ability to work well with college students. In addition, every area or floor is staffed by a Resident Assistant who is an upperclassman with training, experience, and knowledge to answer students’ questions and, more importantly, to help students find their own answers. Counselors in Residence (graduate assistants) provide short-term counseling for students living in the residence halls in response to personal, social, academic, and developmental needs.

Residential living offers a variety of choices including designated communities focusing on Community Opportunity Respect and Excellence Connections, a program designed for first- and second-year students, honors programs, engineering, international issues, and first year experiences. Living options include traditional halls, suites and apartments with designations of all male, all female or co-ed. Rooms are available for visually or hearing-impaired students as well as those who are physically challenged. All residence hall exterior doors have electronic card access and the system is monitored 24 hours each day. Students are provided access to their assigned hall via a fob checked out to the student when they receive their room key and the electronic access system. Additional information is available on the University Housing Web site.

Each of the three separate dining facilities on campus is managed by Campus Dining Services and provides a natural setting for socializing with friends.
and enjoying a wide variety of high quality, nutritious meals. All students living in a residence hall, except those residing in summer school housing, are required to have a meal plan. There are several meal plans available to meet the needs of both on-campus and off-campus students. Learn more about Campus Dining Services online at http://dineoncampus.com/razorbacks.

ARKANSAS UNION

The Arkansas Union seeks to support unique and diverse programs, provide professional services, and satisfy the ever-changing needs of students, faculty, staff, alumni, and guests.

Tenets
Staff and students involved with the Arkansas Union pursue the following positions with regard to the following areas:

- **Facilities** – Offer a welcoming and inviting facility that provides a functional and exciting “Woo Pig Sooie” atmosphere for all Union constituents
- **Services** – Promote student admission and retention by offering services, conveniences and amenities, while also serving the larger University of Arkansas community
- **Program Support** – Support departments and organizations in promoting the growth and development of students through civic, cultural, educational, social, and recreational programs

The Arkansas Union serves as the community center of the University for all members of the college family. As the “living room” of campus, the Union is the gathering place of the college. The Union provides services and conveniences that members of the campus community need in their daily lives and creates an environment for getting to know and understand others through formal and informal associations. Included in the Union are:

Retail Outlets
- ATM’s (various banks)
- Catering and Dining Services
- Club Red Convenience Store
- Computer Store
- First Security Bank
- PMC - Union Copy Center
- Razorback Shop
- RZ’s Coffeehouse*
- U.S. Post Office
- Union Hair Care
- University Bookstore

Food Court
- Bamboo Asian Cuisine
- Burger King*
- Mexican specialties
- Sub Generation sandwiches
- Mama Leone’s Pizza & Pasta
- Hot rotisserie food
- Salads, soups, barbecue, baked items

Facilities
- 24-hour computer lab
- Anne Kittrell Art Gallery
- Allied Ballroom
- Banquet rooms
- Lounges
- Meeting rooms
- Reception rooms
- Union Information Center
- Union Theatre
- Video Theater

The Arkansas Union is the center of student activity and is a perfect place for students to get involved on campus. The Union is a student-centered organization that values participatory decision-making. Through volunteerism, committees, and student employment, the Union offers first-hand experience in citizenship and educates students in leadership, social responsibility, and values. As the center of the college community life, the Union complements the academic experience through an extensive variety of cultural, educational, social, and recreational programs. These programs provide the opportunity to balance course work and free time as cooperative factors in education. The Union provides program support for the departments hosting these events. Located within the Union are 14 offices dedicated to providing programs and services to students.

**Student Services**

- Arkansas Union Administration/Reservation Services
- Assistant Vice Chancellor of Student Affairs
- Associate Dean of Students – Campus Life
- Associated Student Government
- Campus Card Office
- Career Development Center
- Center for Educational Access
- First Year Experience
- Greek Life
- Multicultural Center
- Off Campus Connections
- Student Activities
- Center for Leadership and Community Engagement
- University Ombuds Office
- Student Technology Center
- University Productions

**Center for Leadership and Community Engagement**

The Center for Leadership and Community Engagement is responsible for the oversight and administration of the following areas:

**Registered Student Organizations**

Registered Student Organizations (RSOs) provide all students the opportunity to form and develop organizations based on a common interest or bond. Students are able to create, govern, and budget their organization as well as plan events. Through involvement with an RSO students will meet new people, develop new interests and have fun.

Currently more than 250 student organizations are established in the areas of:

- special interest
- service/honorary
- greek
- governing
- international/cultural
- religious
- professional

Through involvement with an RSO students are able to take advantage of RSO education classes (budgeting, event planning, etc.), RSO resources (office space, lockers, etc.) and apply for funds for RSO events from the Associated Student Government. To find out more about Registered Student Organizations and how to become part of one, call 479-575-5255 or visit the RSO Web site at http://leadership.uark.edu, or stop by the Center for Leadership and Community Engagement in the Arkansas Union A665.
Leadership and Volunteerism Programs

The Center for Leadership and Community Engagement provides students with experiences that enhance student life both inside and outside the classroom. The Leadership Programs are designed to provide training, education, and development to any student who wants to enhance his or her leadership skills. The primary programs in this area are Emerging Leaders, the LeaderShape Institute, the Leadership Workshop Series, the Fall Leadership Summit, the LEAD Team, and the Leadership Resource Library. These interactive programs motivate students and develop key leadership skills related to self-awareness, interpersonal relationships, team leadership, mentorship, and life-long learning. The integral role that students play in implementation of these programs serves as a part of the educational process for all students involved. By participating in these leadership opportunities students can gain valuable skills that are useful in college, to future employers, and throughout life.

The Volunteer Action Center is designed to assist students and student organizations with finding volunteer opportunities within the Northwest Arkansas Community. The center seeks to engage and motivate students through volunteer experiences for the enhancement of their overall educational learning. The center has a programming board of student leaders that coordinates large-scale volunteer events such as Make a Difference Day, Students’ Day of Caring, Angel Tree Book Drive, and Alternative Spring Break. The Volunteer Action Center also coordinates an e-mail Listserv that provides a clearinghouse for volunteer and community service opportunities in the Northwest Arkansas area.

University Programs

University Programs is a volunteer student organization responsible for planning and coordinating more than 350 events annually for the campus community. University Programs provides students with cultural and educational experiences, entertainment, and fun. Seven committees, all made up of students, select, schedule, and produce events such as concerts, movies, lectures, fine arts performances, gallery exhibitions, and daytime programs. Being a part of University Programs gives the student committee members leadership training and real opportunities to gain practical planning experience. Supported by a student activity fee, a majority of University Programs events are free to students.

Associated Student Government

Associated Student Government is a student-led organization that enables students to have an active voice in the decisions and policy that directly affect all students at the University of Arkansas. Students involved in ASG have the opportunity to positively impact the quality of student life, work with and allocate student fees, provide a voice for student concerns, and oversee programs and policies for all students. Through the executive, legislative, and judicial branches of student government, students have the opportunity to work with peers to make a difference on all levels of the University. Involvement levels and time commitment vary by branch and position. For more information, visit the student government Web site http://asg.uark.edu or stop by the ASG office in Arkansas Union A669.

Friday Night Live

Friday Night Live, a late-night programming series at the University of Arkansas, is a collaborative effort for programming, education, entertainment, and retention. It is designed to increase diversity and community awareness through interactive social events. Friday Night Live programs occur on and off campus several Friday nights during the year. They are of the highest quality, represent all UA students, engage the University community, and celebrate diversity to be enjoyed by all who participate.

STUDENT ACTIVITIES

An integral part of a University education is what can be gained through the worthwhile use of leisure time. Students are encouraged to balance involvement with their academic pursuits and interests. There are organizations, intramural sports, spectator sports, lectures, concerts, theatrical offerings, and other activities in which students are encouraged to participate. The Northwest Arkansas region represents one of the best recreational areas in the nation.

Student Media

Student Media is an umbrella organization that administers and advises the official student media outlets of the University. These outlets are: the student newspaper, The Arkansas Traveler; the UA yearbook, The Razorback; the student television station, UATV; and the student radio station, KXUA. All provide a forum for student expression, entertainment, news, and information of interest to the campus community. Other than a small support staff, these groups are entirely staffed by student employees and volunteers, including editors and station managers. For more information, contact Student Media at 479-575-3406.
MISSION AND OBJECTIVES

The mission of the Honors College at the University of Arkansas is to provide exceptional opportunities for outstanding undergraduates to enhance their educational experiences and academic performances, and to serve the University by underscoring its reputation as a research institution, where students come first. This mission incorporates four areas of responsibility: recruitment; administration of honors fellowships, Honors College research grants, and study-abroad scholarships; coordination of honors programs and curricula; and coordination of related services.

The Honors College administers unparalleled support to more than 2,000 students through merit-based scholarships and fellowships totaling more than $17 million. The college provides a community for high achieving students and top professors comprising about 15 percent of the undergraduate student body and more than one-third of the faculty. The Honors College is also an umbrella for the University’s six college-based Honors Programs, and students are automatically admitted when they enroll in the Honors Program in their major. The Honors College serves as a catalyst for promoting academic success, making educational opportunities available to interested undergraduates regardless of whether or not they are Honors students.

FACILITIES AND RESOURCES

The Dean’s Office for the Honors College is housed on the fourth floor of the Administration Building. Large honors lounges, designed as study and relaxation areas for students, may also be found on the fourth floor. The Honors College was created by a $200 million gift from the Walton Family Charitable Support Foundation with the goal that an honors education would be available in every college. The Honors College provides coordination of honors efforts among the colleges and additional scholarship and service opportunities for participating students.

The Academic Scholarship Office awards scholarships to a variety of students, both incoming and current, at the University of Arkansas. Approximately 5,000 awards are made each year, at a value of approximately $18 million. Students do not have to be in the Honors College to receive many of these scholarships though participation in honors of qualified students is always encouraged.

Scholarships awarded to incoming freshmen include the Chancellor’s Scholarship, the Honors College Academy Scholarship, the Silas Hunt Scholarship, the University Scholarship, and the Leadership Scholarship. Scholarships for current students include the Brandon Burlsworth Memorial Scholarship, the R. Coin Mason Scholarship, the Blanche Bledsoe and Clarence J. Rosecrants Senior Endowed Scholarship, the Boles-Zaulx Scholarship, the Alfred Allen Scholarship, and many more. These scholarships are available to students across the University. For additional information see the chapter on Financial Aid and Scholarships in this catalog.

The Office of Post-Graduate Fellowships provides assistance to all students who are applying for international graduate fellowships: the Marshall, Rhodes, Gates Cambridge, Rotary, and Fulbright, and national graduate fellowships such as those provided by the National Science Foundation, the Department of Defense, the Department of Energy, and the Mellon and Jacob Javits Foundations. The office also assists students with applications for nationally competitive undergraduate scholarships: Barry Goldwater (for outstanding sophomores and juniors in mathematics, science, and engineering), the Truman (for outstanding juniors interested in pursuing a career in public service), the Morris Udall (for competitive students who intend to pursue a career connected to environmental concerns), the James Madison (for students who want to become educators in the social sciences) and many more. The office also provides assistance to graduate, law, and medical school applicants.

The Honors College reports to the Chancellor through the Provost and Vice Chancellor for Academic Affairs. The leaders of the Honors College are advised by two groups: The Honors Council, which comprises senior professors and academic administrators and is chaired by the dean, and the Honors College Directors’ Council, which comprises the directors of the Honors Programs in each of the colleges and schools and is chaired by the Associate Dean of the Honors College. Honors Program directors include:

Sidney Burris, Fulbright College of Arts and Sciences, Old Main 517
Carol Gattis, College of Engineering, Bell Engineering 4184
John Norwood, Walton College of Business,
DEGREES OFFERED

The Honors College does not confer degrees. Honors degrees are conferred by the college of major.

OTHER PROGRAMS

Advanced Placement Summer Institute

The AP Summer Institute is a College Board approved summer program coordinated by the Honors College. The institute provides training to Advance Placement teachers in American history, biology, calculus, chemistry, composition, computer science, government, literature, physics, psychology, and statistics.

Honors College Internships

Approximately 40 Honors College internships are offered each year. Students register for a one-hour credit course. The course provides information on applying for scholarships, writing resumes and personal statements, and interviewing skills for internships and fellowships.

COLLEGE ADMISSION REQUIREMENTS

Admission to the Honors College requires that a student first be admitted to an honors program in the college of major. Students admitted to an honors program are automatically included in the Honors College. Students admitted to the Honors College must have a minimum 28 ACT or SAT equivalent and a minimum 3.5 high school grade-point average. These are the basic requirements for each of the honors programs except the Walton College, which requires a 28 ACT or SAT equivalent and a minimum 3.75 high school grade-point average. Students also can be admitted at the end of the freshmen year by earning a 3.5 GPA on 30 completed hours, or through the end of the sophomore year by earning a 3.5 on 60 completed hours (the total does not include Advanced Placement, International Baccalaureate, or CLEP credit).

COLLEGE SCHOLARSHIPS

The Walton Family Charitable Support Foundation endowed two major scholarships for incoming freshmen to be administered by the Honors College. The Foundation also endowed funds for current honors students for study abroad and undergraduate research.

Honors College Fellowships provide $50,000 over a four-year period for outstanding incoming freshmen from under-represented counties in Arkansas. The application for admission serves as the application for this scholarship.

Honors College Study Abroad Grants are available to competitive students in the Honors College who have completed a minimum of 30 hours, 6 of which must be in honors. A separate application is required and is available in the Honors College Office. Deadlines are October 15 and February 15.

Honors Undergraduate Research Grants are available to competitive students in the Honors College who have completed a minimum of 30 hours, 6 of which must be in Honors. A separate application is required and is available on the Honors College Web page: honorscollege.uark.edu. The application includes a five-page summary of the proposed research and a detailed letter of support from the research mentor. Deadlines are October 15, February 15, and June 15.

STUDENT ORGANIZATIONS

The Honors College Student Association is a registered student organization sponsored by the Honors College at the University of Arkansas. Membership is open to all University of Arkansas honors students, with no membership fees or dues, and is designed to provide an honors community, uniting honors students from all colleges on campus. Members participate in campus recruiting events and frequently serve as honors liaisons to visiting groups. Their newsletter Castalia is published each semester. Additional information is available on the Honors College Web site at http://honorscollege.uark.edu/.

COLLEGE ACADEMIC REGULATIONS

The Honors College wishes to foster an environment of intellectual interaction and development across colleges. To graduate with honors from any college requires a minimum of 12 honors credits and the completion of an undergraduate research project is required. A combination of Honors hours, thesis quality, and GPA requirements (Minimum 3.5) lead to Latin designation of Cum Laude, Magna Cum Laude or Summa Cum Laude. The specific requirements are set by the college or school of major. Registration for Honors courses is restricted to Honors students or other students who meet the Honors criteria and who have been approved by the Honors program offering the course.
MISSION AND OBJECTIVES

The University provides several options for students to pursue education more broadly than one field of undergraduate study might allow, including interdisciplinary and multidisciplinary programs. These programs allow broader instruction and research opportunities, especially in emerging fields that haven’t reached the academic breadth to constitute a department in their own right or in cases in which collaboration between one or more departments allows faculty from each existing department to contribute to the interdisciplinary or multidisciplinary major. In the Catalog of Studies, requirements for each interdisciplinary program are listed in the chapter of the college or school that oversees the program. See Pages 10 and 11 for a complete list of majors and minors listed by college and school.

One interdisciplinary minor, Microelectronics-Photonics, is administered by the Division of Interdisciplinary Studies in the Graduate School. The requirements for completing a minor in Microelectronics-Photonics are listed below.

MICROELECTRONICS-PHOTONICS (MEPH)

Ken Vickers  
Program Director  
248 Physics  
479-575-2875  
Russell DePriest  
Assistant Program Director for microEP minor  
131 Engineering Hall  
479-575-4719  
microep@cavern.uark.edu  
http://microEP.uark.edu

Biological Engineering Faculty:
• Professor Li  
• Assistant Professors Kavdia, Kim, Ye

Chemical Engineering Faculty:
• Professor Ulrich  
• Associate Professor Beitle  
• Assistant Professor J. Hestekin

Chemistry Faculty:
• Professors Fritsch, Gawley, Peng, Stenken  
• Assistant Professor Tian

Civil Engineering Faculty:
• Professor Selvam

Computer Science/Computer Engineering Faculty:
• Associate Professor Thompson  
• Assistant Professor Di

Electrical Engineering Faculty:
• Distinguished Professors Varadan (VK), Varadan (VV)  
• Professors Ang, Balda, Manasreh, Mantooth, Naseem, Schaper  
• Associate Professor El-Shanawee  
• Research Associate Porter

Industrial Engineering Faculty:
• Associate Professor Mason

Mechanical Engineering Faculty:
• Professor Malshe  
• Associate Professors Gordon, Tung  
• Assistant Professors Huang, Spearot, Zou

Microelectronics-Photonics Faculty:
• Adjunct Professors DePriest, Foster

Physics Faculty:
• Distinguished Professors Salamo, Xiao  
• Professors Bellaiche, Singh  
• Research Professor Vickers  
• Associate Professor Oliver  
• Assistant Professors Fu, Gross, Li, Tchakhalian  
• Research Associate and Adjunct Professor Shultz

Microelectronics-Photonics (microEP) is an interdisciplinary program based in the Division of Interdisciplinary Studies in the Graduate School that prepares students for careers involving micro/nano materials, processing, and devices applied in areas such as photonics, microelectronics, bio/chemical analysis, etc. The microEP Graduate Program offers M.S. and Ph.D. degrees, as well as an undergraduate minor in Microelectronics-Photonics.

The purpose of this minor is to allow undergraduates in science and engineering to be able to capitalize on the research and educational core of the microEP Graduate Program as they prepare to enter the job market or compete for positions in top level graduate programs.

Requirements for a Minor in Microelectronics-Photonics: Six hours of required courses (ELEG 4203, and one of INEG 4323, INEG 4433, or INEG 4443). At least an additional nine hours must be taken from the following undergraduate courses (BENG 4123, CHEM 4213, ELEG 4223, MEEG 4303, MEEG 4443, MEPH 488V, PHYS 3603, PHYS 4713, and PHYS 4213), or from other appropriate courses not on this list if approved first by the microEP Program and by the course instructor.

Students accepted into the microEP minor must attend an orientation session at the beginning of each semester as well as the monthly microEP graduate student research presentations. Students enrolled in the microEP minor must attend at least one public presentation of a Master of Science thesis in microEP or a Doctor of Philosophy dissertation in microEP each semester. Students wishing to declare this minor must apply through the microEP Program Web site, http://microEP.uark.edu, and be accepted into the minor at least two regular semesters before their graduation date.
MISSION AND OBJECTIVES

The mission of the College of Agricultural, Food and Life Sciences is to prepare graduates who are intellectually enriched, technically competent, environmentally conscious, and ethically responsible. We honor the land-grant tradition and respect the many values of its fabric and heritage while having sensitivity toward change for the future. Our goal is for our graduates to be responsible leaders, possessing strong communication skills, problem-solving abilities, and having commitment to be self-directed, lifelong learners.

To accomplish this, the broad curricula include basic courses in the general sciences and liberal arts, as well as agriculture and human environmental sciences.

History and Organization

As the state’s land-grant university, the University of Arkansas has the responsibility for leadership in agricultural and human environmental sciences. This responsibility is shared with the Division of Agriculture, and it includes teaching, research, and service functions.

The Bumpers College is an integral component of the University of Arkansas and addresses the teaching responsibility of the land-grant university. Its roots lie in the First Morrill Act of 1862, which created the land-grant system by providing a grant of land to each state for the establishment of a college “where the leading objective shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts in such manner as the legislatures of the state may prescribe to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.” Agricultural sciences have been taught at the University of Arkansas almost from the beginning of the institution in 1872. The University conferred the first degrees in agriculture in 1904.

Early instruction and outreach efforts focused on improving rural life for men, women, and children. Farm wives were interested in beautifying the home, food preparation and safety, and gardening. Foods and nutrition, bacteriology, chemistry, and other related subjects held a common scientific interest for both agriculture and home economics, so it naturally evolved that studies in home economics should develop within the realm of agricultural education. Domestic science classes were offered as early as 1909, and a department of home economics was established in 1913. The department was elevated to school status in 1994, and its name was changed to the School of Human Environmental Sciences.

The passage of the Hatch Act in 1887 and subsequent legislation made possible the Agricultural Experiment Station, the research component of the Division of Agriculture. Most faculty who teach in the Bumpers College also hold appointments in the Experiment Station and are able to incorporate active research into their teaching.

The dissemination of University research in agriculture and human environmental sciences is carried out by personnel in the Cooperative Extension Service, created by the Smith-Lever Act of 1914. Many Extension specialists also hold adjunct faculty status and bring their expertise to the teaching program.

It is this blending of teaching, research, and service functions that create a unique learning environment in the college. As students learn to relate basic areas of science to human needs, they study in laboratory-based classes and are taught in research facilities supported by the Division of Agriculture. Similarly, students are encouraged to intern with professionals in industry and governmental agencies, including the Cooperative Extension Service.

In recognition of the land-grant mission of the University and its commitment to serve the entire state, the Dale Bumpers College of Agricultural, Food and Life Sciences has worked cooperatively with numerous community colleges to organize the Arkansas Consortium for Teaching Agriculture (ACTA). ACTA is designed to facilitate the “seamless” transfer of students from community colleges to the Bumpers College. Coordinated advising, recruiting, and curricula development are working goals of the consortium. Students interested in transferring while enrolled at an ACTA partner school should contact the dean’s office.

FACILITIES AND RESOURCES

The Dale Bumpers College of Agricultural, Food and Life Sciences is composed of ten academic departments and the School of Human Environmental Sciences. The college offers both undergraduate and graduate level degrees. The Agricultural Food and Life Sciences building houses the dean’s office.
and the department of Animal Science and serves as the headquarters for the college academic functions. There are six other buildings on campus operated by the college including the Agriculture Building, Home Economics Building, Rosen Center, Plant Science Building, Agricultural Annex, and the Center of Excellence for Poultry Science. Additionally, the Food Science building, Alzheimer Laboratory, Abernathy Agri-Science laboratory, Biological and Agricultural Engineering Laboratory, Pauline Whitaker Animal Science Arena, and the Dorothy E. King Equine Science facilities are located at the Research and Extension Center north of the main campus. These serve as additional teaching laboratories or classroom facilities. Also, the Infant Development Center and the Nursery School are managed by the college to provide instructional training for the child development program.

Two distance-education classrooms are available for instructional use. A Teaching Resource Center, located in the Agriculture Building, provides support for faculty and graduate student instructors. Students can receive academic assistance through the Academic Enhancement Program (AEP) coordinated by the dean’s office. Trained counselors provide guidance to students seeking extra assistance. Students can also seek assistance through the Enhanced Learning Center, a campus-wide resource.

**COLLEGE SCHOLARSHIPS**

In addition to the scholarships awarded by the University, there are a number of scholarships available to students in agriculture and human environmental sciences made possible by generous gifts from many firms and individuals. To be considered for a college scholarship, students must first be admitted to the University. Most scholarships require students to be enrolled full-time, at least 12 credit hours per semester. A college scholarship application, which serves as an application to all available scholarships offered by the college, must be submitted by February 15 each year. A listing of various outside scholarships is available for review in the dean’s office, E-108, Agricultural, Food and Life Sciences Building and on the college’s Web site. There are also miscellaneous outside scholarships for which applications are available in some departmental offices. For more information on scholarships, contact the dean’s office.

**STUDENT ORGANIZATIONS**

Agricultural Business Club is for students interested in agricultural business and economics.

Agricultural Communicators of Tomorrow (ACT) is designed for students with an interest in agricultural communications.

Agricultural Mechanization Club is a student organization for those with an interest in agricultural technology.

American Society of Agricultural Engineers, Student Branch, (ASAE) is an organization for students interested in agricultural engineering.

Apparel Studies Student Association (ASSA) is an organization open to all students interested in the fashion industry.

National Block and Bridle Club is for students who are interested in any phase of animal science. Students with interests in dogs, cats, horses, cattle, sheep or swine will find this club a good place to become involved.

Collegiate 4-H/FFA is for any student who has been active in 4-H or FFA or has a current interest in service to these youth-oriented organizations. This club is especially designed for students interested in teaching agricultural education or working for the Extension Service.

Collegiate Farm Bureau was formed in 2002 with support from the Arkansas Farm Bureau Federation. Its goals are to motivate students to become involved in shaping agricultural policy for the state and the nation.

The American Association of Family and Consumer Sciences (AAFCS) offers student membership to all human environmental sciences majors. Monthly meetings highlight various phases of human environmental sciences and provide social contact with other majors. In addition, members become involved in local service projects and may attend statewide workshops and leadership training sessions.

Crop, Soil, and Environmental Science Club is a student organization for those interested in crops and soils through both an agricultural and environmental perspective.

Family and Child Organization is an organization for students who are interested in the welfare of young children. The organization, through programs, publications, and trips, offers students information about career opportunities in human development.

Food Science Club is an organization for those students interested in food science.

GroGreen The student organic farm is for students to learn about and practice sustainable and organic farm and garden practices.

Horticulture Club is a student organization for those interested in horticulture including floriculture, ornamentals, turf, small fruits and vegetables.

Hospitality and Restaurant Management Club is for students who are interested in the food and beverage, hotel operations and tourism aspects of the hospitality industry.

Interior Design Organization (IDO) is a student organization dedicated to representing the entire profession and encouraging the highest possible standards for the practice of interior design.

Isele-Baerg Entomology Club is open to those who wish to stimulate interest in the field of entomology, perform outreach programs for the public and to promote and encourage professional exchange of ideas in the field of entomology.

Minorities in Agriculture, Natural Resources Related Sciences (MANRRS): The purpose of this organization is to promote and implement initiatives which foster inclusion and advancement of members of ethnic/cultural groups under-represented in the agricultural and natural sciences and related fields in all phases of career preparation and participation.

Plant Pathology Graduate Student Association (PPGSA) is an organization open to graduate students interested in plant pathology or related fields.

Poultry Science Club is open to all students interested in any phase of the poultry industry or related fields.

Pre-Vet Science Club is for students interested in veterinary medicine and is especially designed for those students in the pre-veterinary medicine curriculum.

Student Dietetic Association (SDA) is an organization for students who are interested in the profession of dietetics. The goals are to promote growth in professional attitudes and to provide various programs of interest to the members.

Turf Management Club is a student organization open to all students interested in turfgrass management.

There are also numerous general organizations on the University campus, and students of the Dale Bumpers College of Agricultural, Food and Life Sciences participate in most of them. These include fraternities, sororities, honor and scholarship organizations, religious and music groups, sports organizations, and others.

Alpha Zeta is the professional honor fraternity for students of agriculture. To be invited to become a member, a student must rank in the upper two-fifths of the class and be recognized for leadership and character.

Phi Upsilon Omicron is the professional honor society for human environmental sciences students. To be eligible for invitation to membership, a student must rank in the upper 35 percent of the class and be recognized for character and leadership.
Gamma Sigma Delta is the honor fraternity for graduating seniors, graduate students, faculty, and alumni of the Dale Bumpers College of Agricultural, Food and Life Sciences. Seniors must rank in the upper 25 percent of their class to be eligible for membership, but not more than 15 percent of the class may be elected for membership. The highest-ranking sophomore and the highest-ranking senior are recognized annually by the society.

Alpha Tau Alpha is a national honorary professional fraternity for those preparing to become teachers of agricultural education. Its mission is to develop a true professional spirit in the teaching of agriculture, to help train teachers of agriculture who shall be leaders in their communities, and to foster a fraternal spirit among students in teacher training in agricultural education.

ACADEMIC ADVISING

Bumpers College advising mission is to enhance the educational experience of and maximize opportunities for students. Therefore, we are committed to a strong, effective academic advising program. Advising plays a significant role in the total process of educating students for lifelong learning. The adviser assists students with the development and implementation of their educational plans.

Research demonstrates that the more contact students have with faculty, the more likely they are to persist and complete their educational goals in a timely manner. Therefore, the college has adopted a faculty advisement model. The faculty adviser serves as a facilitator to assist students in maximizing their education potential. The advising relationship is a partnership between the student and the faculty adviser. It is dependent on effective communication and regular contact.

Selection of a Major

A student who elects to major in some area of study in the college should plan the program with a faculty adviser. While undecided students are welcome, early selection of a major will permit better planning and proper sequencing of courses. The student and faculty adviser work closely to ensure that curriculum requirements are met in a timely fashion. A student uncertain about a major will be advised as an undeclared major through the dean's office.

DEGREES OFFERED

All entering students (including freshmen, international and transfer students) admitted to the University of Arkansas, Fayetteville, are eligible to pursue a degree program in the Dale Bumpers College of Agricultural, Food and Life Sciences. Degrees offered are as follows:

The Bachelor of Science in Agricultural, Food and Life Sciences (B.S.A.)
The Bachelor of Science in Human Environmental Sciences (B.S.H.E.S.)
The Bachelor of Interior Design (B.I.D.)

MAJORS, CONCENTRATIONS AND MINORS

Agricultural, Food and Life Sciences – B.S.A. Degree
Majors and Concentrations
Agricultural Business (AGBS)
Agricultural Business Management and Marketing (ABMM)
Agricultural Economics (AGEC)
Pre-Law (PRLW)
Agricultural Education, Communication and Technology (AECT)
Agricultural Communications (ACOM)
Agricultural Education (AGED)
Agricultural Systems Technology Management (ASTM)
Animal Science (ANSC)
Crop Management (CPMG)
Environmental, Soil, and Water Science (ESWS)
Food Science (FDSC)
Food Science (FDSC)
Food Technology (FDTN)
Horticulture, Landscape, and Turf Sciences (HLTS)
Poultry Science (POSC)

Minors Offered

Agricultural Business (AGBS-M)
Agricultural Education (AGED-M)
Agricultural Systems Technology Management (ASTM-M)
Animal Science (ANSC-M)
Crop Biotechnology (CPBT-M)
Crop Management (CPMG-M)
Entomology (ENTO-M)
Environmental, Soil, and Water Science (ESWS-M)
Equine Science (EQSC-M)
Food Science (FDSC-M)
Global Agricultural, Food and Life Sciences (AFLS-M)
Horticulture (HORT-M)
Journalism (JOUR-M)
Landscape Horticulture (LHRT-M)
Pest Management (PMGT-M)
Plant Pathology (PLPA-M)
Poultry Science (POSC-M)
Turf Management (TURF-M)
Wildlife Habitat (WLHA-M)

Certificates Offered

Food Safety Manager Certificate of Proficiency (FMGR-CP)
Hazard Analysis and Critical Control Point Coordinator Certificate of Proficiency (HCCP-CP)

In both certificates, students take a concentrated core of Web-based courses focused on the application of scientifically based food-safety systems through the application of HAACP systems. Applicants must have a B.S. degree or seven years of relevant experience in the food industry to be admitted. See page 89 for the list of courses.

School of Human Environmental Sciences – B.S.H.E.S. or B.I.D. degree Majors and Concentrations
Apparel Studies (APST)
Food, Human Nutrition and Hospitality (FHNH)
Dietetics (DIET)
General Foods and Nutrition (GFNU)
Hospitality and Restaurant Management (HRMN)
General Human Environmental Sciences (HESC)
Human Development, Family Sciences, and Rural Sociology (HDFS)
Child Development (CDEV)
Birth through Kindergarten (BRKD)
Lifespan (LSPN)
Interior Design (IDES)

Minors Offered

Human Development and Family Sciences (HDFS-M)
General Foods and Nutrition (GFNU-M)
Global Agricultural, Food and Life Sciences (AFLS-M) – See page 76.
Journalism (JOUR-M) – See page 74.

Minors in other Colleges: Students in the College of Agricultural, Food and Life Sciences may pursue an academic minor in the Sam M. Walton College of Business or in the J. William Fulbright College of Arts and Sciences. These minors usually consist of 15 to 20 hours of course work. For requirements regarding minors, check the catalog under the department offering the minor. Students must notify the dean’s office of their intention to pursue a minor.

Special (Non-Degree Seeking) Students
While most students enrolled in the Dale Bumpers College of Agricultural, Food and Life Sciences work toward a degree, students who desire additional education of a specific nature but who do not wish to fulfill all requirements for a degree may enroll as special students.

GRADUATE STUDIES
The Graduate School of the University, in cooperation with the Dale Bumpers College of Agricultural, Food and Life Sciences, offers the Master of Science degree in each of its ten departments and in the School. Six doctoral degrees are offered. More detailed information regarding individual programs may be obtained by contacting the administrative office of each department, or by consulting the Graduate School Catalog.

ACCREDITATIONS

The Bachelor of Science in Human Environmental Sciences (B.S.H.E.S.) degree programs are accredited by the Council for Professional Development of the American Association of Family and Consumer Sciences. The degree program in dietetics is accredited by the Commission on Accreditation for Dietetic Education of the American Dietetics Association. The Bachelor of Interior Design (B.I.D.) degree is accredited by the Council for Interior Design Accreditation (CIDA). The Nursery School and the Infant Development Center in the School of Human Environmental Sciences are accredited by the National Association for the Education of Young Children (NAEYC). The Bachelor of Science in Agricultural, Food and Life Sciences (B.S.A) in food science is an approved program by the Institute of Food Technologists. Teacher education programs in agriculture and family and consumer sciences are coordinated with educational programs in the College of Education and Health Professions and are accredited by the National Council for Accreditation of Teacher Education (NCATE).

OTHER PROGRAMS

Pre-veterinary Medicine
Because Arkansas does not have a college of veterinary medicine, the Arkansas General Assembly has authorized funds for education in veterinary medicine at out-of-state institutions. The State Board of Higher Education is the designated agent for the State of Arkansas, and the Student Loan Authority is authorized to administer the program. Terms and conditions prescribed by the Student Loan Authority are as follows: the grant will cover only out-of-state tuition, and the student will pay his or her own fees and expenses.

Contracts have been negotiated with the Board of Control for Southern Regional Education for education in veterinary medicine at Louisiana State University and at Tuskegee University. Arrangements have also been made with the University of Missouri and Oklahoma State University. Under the provisions of the legislation, only citizens of Arkansas are eligible. They must enroll in and complete the pre-veterinary medicine curriculum to satisfy the admission requirements of these colleges of veterinary medicine.

The pre-veterinary medicine program at the University of Arkansas is administered in the departments of Animal Science and Poultry Science of the Dale Bumpers College of Agricultural, Food and Life Sciences. There are faculty in these departments who help counsel and advise students regarding their pre-veterinary medicine program. There are also faculty veterinarians who provide some insight into the practice of veterinary medicine and are knowledgeable about many of the considerations encountered in establishing a practice upon graduation. Some of these veterinarians have been in private practice; others have been involved in full-time agricultural research since graduation from veterinary medicine and graduate school. Because there is a wide cross-section of experience among these faculty, students find their counsel valuable in planning a future in veterinary medicine.

While it is possible to complete requirements for admission to some colleges of veterinary medicine in two years, most students take three years or more to complete the requirements, and most complete a B.S. degree before being admitted. Students who carefully plan their work may complete a B.S. degree by transferring hours earned in the first two years at an accredited college of veterinary medicine back to the University of Arkansas, provided they complete certain degree requirements at the University prior to entering a school or college of veterinary medicine. These students must complete a minimum of 94 hours of a 124-hour program of prescribed courses. This will require three years and one or two 6-week summer terms for most students. Therefore, students should inform their advisers early in their program that they wish to be in a pre-vet degree program.

The Bumpers College of Agricultural, Food and Life Sciences is ready to assist students in fulfilling their pre-veterinary medicine requirements whether they desire to complete them in a two-year span or over three or four years. The supporting departments at the University, including chemistry, English, and biological sciences, all offer quality courses that give a student an excellent background for the pursuit of a degree in veterinary medicine.

To earn the professional degree, a student must complete the pre-veterinary medicine requirements and the four-year prescribed curriculum in one of the colleges of veterinary medicine.

Required Examinations: All required examinations are given on campus and administered by testing services (Hotz Hall 713, phone, 479-575-3948). Exams must be taken by late fall of the year prior to entering vet school. Application forms for taking the exams can be picked up at testing services. Applications should be turned in at least 30 days prior to examination. Students seeking admission to University of Missouri may take the MCAT on one of the two national testing dates in the spring or early fall. All other contract schools accept the Graduate Records Exam (GRE), which is given frequently.

Students applying for admission to Oklahoma State University must take the general test and the biology test of the GRE, which is administered frequently on campus.

Applications: Students applying to Louisiana State University, Oklahoma State, and University of Missouri must fill out a Veterinary Medical College Application Service (VMCAS) form, available at their online site (www.aavmc.org). Students must complete the application and have it postmarked by Oct. 1 of the year prior to beginning studies. Application forms for Tuskegee University must be obtained directly from Tuskegee University. Application forms are due by Dec. 5 of the year prior to entering school. Since requirements for the various veterinary schools periodically change, it is important that students check with their advisers about specific school requirements as they progress through the pre-veterinary requirements.

All students should contact the Coordinator of Veterinary Medicine, Dale Bumpers College of Agricultural, Food, and Life Sciences, AFLS B114, Uni-
The Bumpers College Honors Program provides students with opportunities for intellectual enrichment beyond the traditional undergraduate experience. This is accomplished through special honors courses, completion of an undergraduate honors thesis, and other significant activities. Students must maintain a GPA of 3.25 to remain in the program.

Students in the AFLS Honors Program are required to complete 6 hours of honors courses with the majority from AFLS Honors courses chosen from the following:

- AFLS 1011H Honors Orientation
- AFLS 3131H Honors: Management and Leadership
- AFLS 3211H Honors Professional Development
- AFLS 3231H Intro to Scientific Thinking & Methods - Logic, Reasoning, & Sci. Argumentation
- AFLS 3313H Honors Global Issues in AFLS
- AFLS 3412H Honors Proposal Development
- AFLS 3512H Rotations in Agric. Lab Research
- AFLS 4431H Honors: Exploring Ethics
- AFLS 401VH Honors Special Topics -- Topics include: Personal Excellence and Contemporary Readings.

Honors students are also required to complete 6 hours of thesis credit as AFLS 400VH Honors Thesis.

If Honors courses other than from the AFLS College are to be included as part of the 6 hours of honors coursework, the student must submit a written request to the AFLS Honors Faculty Committee for their consideration. This written request must be submitted to the AFLS Honors Program Director.

To support their research or creative projects, participants in the Honors Program are eligible to apply for undergraduate research grants from the AFLS college and the Honors College as well as Student Undergraduate Research Grants. The transcript and diploma of each honors graduate will designate the student as an honor graduate of the college who will be recognized as graduating with Honors Distinction. At the college commencement ceremony, each honors graduate will wear special regalia and have the title of his or her honors thesis and mentor’s name listed in the graduation program.

An educational experience outside the U.S. has become an integral component for today’s student in higher education. The ability to compete and perform in the global arena requires an understanding of world cultures, economic systems, religions, trends, governments and politics. Students in the Bumpers College are encouraged to engage in study abroad that will lead to life-long partnerships, cultural awareness and understanding of the global dimensions of their majors. The college years provide the best opportunity for students to gain this understanding and experience through faculty-led group study tours; summer, semester or year-long study abroad; and international internships which closely relate to their career goals.

Bumpers College provides study abroad opportunities through its Global Studies Program, directed by Raymond W. Barclay Jr., who spends significant time abroad arranging individual programs of study. Although the Global Studies Program often uses standard “off-the-shelf” study abroad programs, its hallmark is customizing study abroad experiences to meet the specific interests and goals of each Bumpers student. More than 250 Bumpers students have had an international study experience since its inception in 1997, studying in 25 different countries, each earning academic credit relating to their major and global interests. The college anticipates a total of 40 to 50 Bumpers students participating in the Global Studies Program during each calendar year.

Study abroad can also lead to enrollment in AFLS 3313H Honors Global Issues in Agricultural, Food and Life Sciences; or the minor in Global Agricultural, Food and Life Sciences for undergraduate students. Graduate opportunities are available for study in agricultural economics, agribusiness and related subjects via the UA’s TransAtlantic Master of Science program at Ghent University, Belgium. Second language capability is helpful, but not required.

Bumpers students interested in a study abroad program or internships with full-time status usually can maintain their scholarships while abroad. Limited funding is available for travel grants through Bumpers and Honors colleges.

All students seeking admission to the Dale Bumpers College of Agricultural, Food and Life Sciences must meet the general requirements for admission to the University. Students transferring from other colleges at the University of Arkansas or from other institutions are expected to meet the same entrance standard.

All students must satisfy the following University Graduation requirements.

1. Complete a minimum of 124 semester hours.
2. Fulfill University Core Requirements of 35 hours. See page 40 for a list of courses that meet the requirements. Check requirements for each major as some majors require specific core courses.
3. Successfully complete ENGL 2003 Advanced Composition unless exemption is gained as detailed in the University catalog. See page 41.
4. Earn a grade-point average of 2.00 (“C” average) on all work attempted at the University of Arkansas.
5. Present no more than 68 semester hours of lower-division transfer course work (1000/2000 level) for degree credit.
6. Present no more than 25 percent in “D” grades earned at the University of Arkansas to meet degree requirements.
Bumpers College Graduation Requirements

1. For the degree of Bachelor of Science in Agricultural, Food and Life Sciences, students must complete a minimum of 30 semester hours within Bumpers College.
2. For the degree of Bachelor of Science in Human Environmental Sciences or Bachelor of Interior Design, students must complete a minimum of 30 hours within the School of Human Environmental Sciences at the University of Arkansas.
3. A minimum of 9 hours of Broadening electives (Bumpers College courses taken outside of departmental code).
4. A minimum of 6 hours of Communications courses to include COMM 1313 (3 hours) and a Communication Intensive Elective (3 hours) from an approved course list.
5. Students who are exempt from ENGL 1013 or ENGL 1023 must enroll in 3-6 hours of English, Communications, Literature or Foreign Languages to fulfill the college requirements of English / Communications.
6. A minimum of 39 hours of courses at the 3000-level or above.
7. In addition to university and college requirements students must meet other defined departmental requirements specific to each major and concentration. Bumpers College courses outside of the major may be included in departmental requirements.
8. General electives will vary by major. Electives may be selected to meet the requirements for a minor. Students are encouraged to meet with their adviser to discuss applying elective hours toward a minor.

Rules Applying to Course Work Used for Degree Credit

1. No credit will be given for duplicate coursework.
2. A maximum of six hours of internship and six hours of special problems may be counted for degree credit.
3. Elective courses used for degree credit may be chosen from any department in the University. These are subject to the approval of the academic adviser. Electives may be used to develop a minor.
4. Students are encouraged to join the University band, chorus, and judging teams, and to participate in debate, drama, athletics, etc. A total of six semester hours of elective credits in such activities may be counted toward a degree. The maximum elective credits in any one activity that may be counted toward a degree are as follows:
   - Band/or chorus: 4 hours
   - Drama and/or debate: 4 hours
   - Judging teams: 4 hours
   - Physical education activities: 4 hours
5. Any course taken by correspondence, including Web-based courses, must be approved in advance in the dean's office if the credits earned in the course are to be applied toward a degree. This rule applies regardless of the school from which the course is taken.
6. All transfer course work to be applied toward the degree must be an approved course listed in the transfer equivalency guide maintained by the Registrar's office. For courses not listed in the guide, petitions can be submitted to the Dean's office by the student's academic adviser.
7. All study abroad courses must be approved in advance in the Dean's office if the credits earned in the courses are to be applied toward a degree.

Requirements to Graduate with Honors

Students who have demonstrated exceptional academic performance in baccalaureate degree programs will be recognized at graduation by the honors designation of Cum Laude, Magna Cum Laude, or Summa Cum Laude. To earn these distinctions, a student must meet the following criteria:
1. At least one-half of the degree course work must have been completed at the University of Arkansas, Fayetteville.
2. Only the grade-point average on course work completed at the University of Arkansas, Fayetteville, will be considered.
3. For each of the three distinctive honors, the student must have the minimum grade-point average indicated.
   - (a) Cum Laude: 3.50 to 3.74
   - (b) Magna Cum Laude: 3.75 to 3.89
   - (c) Summa Cum Laude: 3.90 to 4.00
4. Students may graduate with honors distinction without participating in the Honors Program.

Additional Requirements

Former students of the college who are readmitted after an absence of one year may be expected to meet the curriculum requirements in effect at the time of their readmission. Students should consult their academic adviser for degree planning before registering for classes.

Grading System

The Dale Bumpers College of Agricultural, Food and Life Sciences utilizes a plus/minus grading system that assigns numerical values to 12 different grades. These values are used for courses when grade-point averages are calculated. See page 37 for the method of calculating grade-point averages. The 12-step grading system with assigned values is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
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<tr>
<td>D-</td>
<td>0.67</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
</tbody>
</table>

DEPARTMENTAL MAJORS

AGRICULTURAL AND EXTENSION EDUCATION (AEED)

George W. Wardlow  
Head of the Department  
205 Agriculture Building  
479-575-2035  
http://www.uark.edu/depts/aeedhp/aeed/index.html  
- Professors Graham, Johnson, Wardlow  
- Adjunct Professors Lyles, Baker  
- Associate Professors Miller, Scott  
- Assistant Professor Edgar  
- Visiting Instructor Cox  
- Adjunct Assistant Professors Burch, Penn

Agricultural Education, Communication, and Technology (AECT)

The department of agricultural and extension education offers a degree program in agricultural education, communication and technology. Students with this major are in constant demand due to the rapidly changing educational needs of the agricultural and natural resources industries. Graduates with this degree have a broad knowledge of agricultural disciplines. They are prepared as agricultural technology transfer specialists to enter a variety of careers in informal and non-formal teaching roles in either the public or private sector as agricultural educators, Extension agents, industry-based trainers, information
specialists, or technology-management specialists. Students in agricultural education, communication and technology may choose one of three areas of concentration listed below, or, with adviser's approval, select courses from more than one concentration area.

**Agricultural Education Concentration (AGED)**

This area of concentration is designed for students who wish to receive initial teacher licensure to teach agricultural science in public schools.

**Agricultural Systems Technology Management Concentration (ASTM)**

Students planning a professional career related to technical operations and management in agricultural industry should enroll in this concentration. Graduates assume positions of leadership and responsibility in such areas as agricultural services and sales, agricultural management, agricultural production systems, product service, product testing, and service management. The program focuses on preparing students as problem solvers in the application, management and/or marketing of agricultural technology.

**Agricultural Communications Concentration (ACOM)**

This concentration is designed to produce graduates with both technical knowledge about the food and fiber industry and the communication skills needed to convey in an effective manner the story of agriculture to consumers, policy makers, and the public at large. Interpersonal and group communication, public relations, graphic art, video and television production, electronic communication, distance learning, video conferencing, and writing for the media are emphasized in this program.

**Requirements for a Major in Agricultural Education, Communication and Technology (See page 40 for University Core and page 71 for B.S.A. requirements)**

- English/Communication (12 – 15 hours)
- English University Core Courses (6 hours)
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication
- AGED 3142/3141L Ag Communications and lab
- Mathematics University Core Course (3 hours) – See page 40
- Science University Core Courses and Departmental Requirements (20 hours)
- University Core BIOL 1543/1541L Principles of Biology and lab
- University Core CHEM 1074/1071L Fundamentals of Chemistry and lab - (Students may substitute CHEM 1103/1101L and CHEM 1123/1121L for CHEM 1074/1071L)
- CHEM 2613/2611L Organic Physio Chemistry and lab
- BIOL 2013/2011L General Microbiology and lab or PHYS 1044 Physics for Architects I with lab component or higher level Science Elective (3 hours) (AGED Concentration) or Science or Math Elective (3 hours) (ACOM & ASTM Concentration)
- Fine Arts/Humanities University Core Courses (6 hours)
- AGED Concentration
- WLLT 1113 World Literature I or WLLT 1123 World Literature II (3 hours. Select from sections a, b, or d) – See page 40
- ACOM & ASTM Concentration
- 6 hours. (Select in two categories from “State Minimum Humanities Core” (sections a, b, c, or d) – See page 40
- US History University Core Course (3 hours)
- Social Sciences University Core Courses (9 hours)
- University Core AGEC 1103 Principles of Agricultural Microeconomics or AGEC 2103 Principles of Agricultural Macroeconomics
- University Core PSYC 2003 General Psychology
- Select 3 hours from other listed fields of study – See page 40
- AECT Core Requirements: All Concentrations (23 hours)
- AFLS 1011 Freshman Orientation
- AGED 1001 Orientation Agri/Ext Education
- CSES/HORT 1203 Intro to Plant Sciences
- ANSC 1032/1051 Intro to Animal Sciences / Intro to Livestock Industry
- CSSE 2013 Pest Management
- CSSE 2203 Soil Science
- CSSE 2201L Soil Science lab or CSES 355V Soil Profile Description (1)
- AGME 1613/1611L Fundamentals of Agricultural Systems Technology and lab
- AGED 4003 Issues in Agriculture
- AGME 4011 Senior Seminar

**Additional Requirements for Agricultural Education Concentration (44 hours)**

- HORT ELECTIVE (3 hours)
- AGED 475V Internship in Agri Educ (6 hours)
- Mechanical Technology Courses (8 hours)
- Choose from the following AGME courses:
  - AGME 2123 Metals & Welding with lab component
  - AGME 3042 Ag Construction Technology
  - AGME 3102/3101L Small Power Units/Turf Equipment and lab
  - AGME 3153 Surveying Agri & Forestry
  - AGME 3173 Electricity in Agriculture with lab component
  - AGME 4203 Mechanized Systems Management with lab component
  - AGME 4973 Irrigation with lab component
- Education Courses (27 hours)
- AGED 1122 Agri Youth Organizations
- AGED 3133 Methods in Agri Education with lab component
- AGED 4012 Program Development
- AGED 4632 Teaching Diverse Populations
- AGED 4843 Methods in Ag Labs
- AGME 2903 AGHE Appl Microcomputers or ETEC 2001/2002L
- Education Technology and lab
- CIED 1002 Intro to Education and AGED 1031 Early Field Experience
- CIED 3023 Survey of Exceptionalities or CIED 4023 Teaching in Inclusive Secondary Settings
- CIED 3033 Classroom Learning Theory
- HLSC 3633 First Aid/First Responder or equivalent (may be exempt from HLSC 3635 if student has completed Red Cross Life Saver Certification

**Additional Requirements for Agricultural Communications Concentration (29-32 hours)**

- AGED 3153 Leadership Development in Agriculture
- AGME 2903 AGHE Appl Microcomputers
- COMM 2303 Public Speaking
- EXED 475V Internship in Extension (3 hours)
- JOUR 1023 Media & Society
- JOUR 1033 Fundamentals of Journalism with lab component
- JOUR 2013 News Reporting I
- AGED 3942 Professional Development in Ag Comm
- AGED 4243 Pub Prod in Agriculture
- Select 3-6 hours from the following:
  - AGED 4143 Electronic Communication in Agriculture
  - COMM 3303 Small Group Communication
  - COMM 3703 Organizational Communication
### Additional Requirements for Agricultural Systems Technology Management Concentration (32-39 hours)

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<tbody>
<tr>
<td>AGEC 2303</td>
<td>Intro to Agribusiness</td>
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<tr>
<td>AGEC 3403</td>
<td>Farm Business Management</td>
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<td>AGEC 4313</td>
<td>Agribusiness Management</td>
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<td>AGME 3102/3101L</td>
<td>Small Power Units/Turf Equipment and lab</td>
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#### Fall Semester Year 2

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#### Spring Semester Year 2

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<td>Organic Physiological Chemistry and lab</td>
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<td>CSES 203</td>
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<td>Leadership Development in Agriculture (ACOM &amp; STEM concentration or elective for AGED)</td>
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<td>CSES 2203</td>
<td>Soil Science</td>
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### Agricultural Education, Communication and Technology Nine-Semester Degree Program

Students wishing to follow the degree plan in Agricultural Education, Communication and Technology should see page 42 in the Academic Regulations chapter for university requirements of the program. The Agricultural Education, Communication and Technology major has three concentrations: Agricultural Education, Agricultural Systems Technology Management, and Agricultural Communications.

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<td>Orientation to Agricultural/Extension Education</td>
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<td>Ag Youth Organizations for AGED concentration</td>
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<td>AGME 1613/1611L</td>
<td>Fundamentals of Agricultural Systems Technology and lab</td>
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### Minor in Agricultural Education (AGED-M)

The Agricultural Education Minor will consist of 22 hours to include the following:

- CIED 1002 Introduction to Education
- AGED 1031 Introduction to Early Field Experience
- ETEC 2002/2011L Educational Technology and lab
- AGME 2903 Applications of Microcomputers
- CIEWS 3023 Survey of Exceptionalities or CIEWS 4023 Teaching in Inclusive Secondary Settings
- CIED 3033 Classroom Learning Theory
- AGED 1122 Agricultural Youth Organizations
- AGED 3133 Methods in Agricultural Education with lab component
- AGED 48434 Methods in Agricultural Laboratories
- AGED 4012 Program Development
A student planning to minor in Agricultural Education must notify the program adviser.

Minor in Agricultural Systems Technology Management (ASTM-M)

The Agricultural Systems Technology Management Minor will consist of 18 hours to include AGME 1613 and AGME 2903 and 12 hours selected from the following:

- AGME 1611L Fundamentals of Agricultural Systems Technology lab
- AGME 2123 Metals and Welding with lab component
- AGME 3153 Surveying in Agriculture and Forestry
- AGME 3102/3101L Small Power Units/Turf Equipment and lab
- AGME 3173 Electricity in Agriculture with lab component
- AGME 4203 Mechanized Systems Management with lab component
- AGME 4973 Irrigation with lab component
- ENSC 3603 GIS for Environmental Science

A student planning to minor in Agricultural Systems Technology Management must notify the program adviser for consultation and more detailed information.

Minor in Journalism (JOUR-M)

The Journalism Minor allows for a combination of training in journalism with a specialization in agriculture or human environmental sciences. Its purpose is to prepare the student for employment with firms and institutions that produce agricultural or human environmental sciences publications or employ public relations personnel.

Students interested in a journalism minor may choose from one of three areas:

- Print Journalism (18 semester hours)
  - JOUR 1023 Media and Society
  - JOUR 1033 Fundamentals of Journalism *
  - JOUR 2013 News Reporting I
  - JOUR 3013 Editing
  - JOUR 3123 Feature Writing
  - JOUR 3633 Media Law
- Broadcast Journalism (18 semester hours)
  - JOUR 1023 Media and Society
  - JOUR 1033 Fundamentals of Journalism *
  - JOUR 2032/2031L Broadcast News Reporting I and lab
  - JOUR 3072/3071L Broadcast News Reporting II and lab
  - JOUR 3633 Media Law
- Television News Reports I with lab component
  - JOUR 4863 Television News Reports I with lab component

Print and Broadcast Journalism (18 semester hours)

A student interested in a Journalism minor must notify his or her major adviser for detailed information. The minor is coordinated by the department of Agricultural and Extension Education in consultation with the department of Journalism.

SEE PAGES 313, 348, AND 313 FOR AGRICULTURAL AND EXTENSION EDUCATION COURSES (AGED, EXED, OR AGME).

AGRICULTURAL ECONOMICS AND AGRIBUSINESS (AEAB)

- B. L. Ahrendsen
  - Interim Head of the Department
  - 217 Agriculture Building
  - 479-575-2256
  - http://www.uark.edu/depts/agriecon/

- Professors Ahrendsen, Cochran, Dixon, Goodwin, Popp (M.), Wailes
- Adjunct Professors Bryant, Miller
- Associate Professors McKenzie, Parsch, Popp (J.), Rainey, Thomsen
- Assistant Professors Hogan, Watkins

The agricultural business degree program provides education suited to career opportunities in farm management, agricultural business management, and agricultural marketing in both the domestic and international areas.

Managers of farms and agricultural businesses are continually required to make organizational and operational decisions. The basic skills and knowledge needed for making sound decisions are provided by the agricultural business curriculum. Students may elect to specialize in areas compatible with their personal objectives, depending upon the extent of accounting and business orientation desired.

Students educated in agricultural business are in demand for positions in agricultural industries, farm operation, marketing agencies, agricultural service organizations, state and federal agencies, and numerous other positions. For those who go on to graduate school, teaching and research positions are available with land grant colleges as well as with other institutions. Three concentrations are available to meet career objectives:

- A. Agricultural Business Management and Marketing (ABMM)
- B. Pre-Law, for students preparing to attend law school (PRLW)
- C. Agricultural Economics, which emphasizes quantitative and analytical skills to prepare students for graduate school (AGEC).

Requirements for a Major in Agricultural Business (See page 40 for University Core and page 71 for B.S.A. requirements.)

- English/Communications (12-15 hours)

- English University Core Courses (6 hours)
  - COMM 1313 Fundamentals of Communication
  - ENGL 2013, ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information

- Communication Intensive Elective: AGED 3142/3141L, ENGL 2013, ENGL 3053, COMM 2303, COMM 2323, COMM 2373, COMM 3303, COMM 3383, or JOUR 1033

- Mathematics University Core Course and Departmental Requirements (9-13 hours)
  - University Core MATH 1203 College Algebra
  - MATH 2053 Finite Mathematics
  - ABMM & PRLW Concentrations:
    - AGEC 2403 Quantitative Tools for Agribusiness or WCOB 1033 Data Analysis and Interpretation

- AGEC Concentration:
  - MATH 2043 Survey of Calculus
  - WCOB 1033 Data Analysis and Interpretation or STAT 4003/4001L Statistical Methods and Lab

- Science University Core Courses (8 hours) - See page 40

- Fine Arts/Humanities University Core Courses (6 hours)
  - Select in two categories from “State Minimum Arts/Humanities Core” (sections a, b, c, or d) – See page 40

- US History University Core Course (3 hours) - See page 40

- Social Sciences University Core Courses (9 hours) Select from 3 sets of courses
  - PSYC 2003 General Psychology or SOCI 2013 General Sociology or
Additional Requirements for Agribusiness Management and Marketing Concentration (27 hours)

- AGEC 2143 Agribusiness Financial Records or WCOB 1023 Business Foundations
- AGEC 3373 Futures & Options Markets
- AGEC 3313 Agribusiness Sales
- AGEC 3413 Principles of Environmental Economics
- Select 6 hours from AGEC 4113 Ag Prices & Forecasting with lab component OR AGEC 4373 Advanced Price Risk Management OR AGEC 4313 Agribusiness Management OR AGEC 4323 Agribusiness Entrepreneurship
- And select 9 hours from alpha codes AGEC, MATH, STAT, or courses in the Walton College of Business or the AFLS College. (To enroll in upper level courses in WCOB requires the following as prerequisites regardless of concentration: WCOB 1120 Comp Competency or equivalent WCOB 1023 Business Foundations, WCOB 1033 Data Analysis and Interpretation)

Bumpers College Electives (9 hours)
General Electives (20 hours)

124 Total Hours

Additional Requirements for Pre-Law Concentration (27 hours)

- AGEC 2143 Agribusiness Financial Records
- AGEC 3413 Principles of Environmental Economics
- AGEC 3523 Environmental & Natural Resources Law
- AGEC 4313 Agribusiness Management or AGEC 4323 Agribusiness Entrepreneurship
- Select 15 hours from at least two areas:
  - Area 1:
    - BLAW 3033 Commercial Law
    - BLAW 3043 Law of Business Organization
    - WCOB 1012 Legal Environment of Business
  - Area 2:
    - COMM 2303 Public Speaking
    - COMM 2373 Intro to Debate
    - COMM 3503 Small Group Communication
    - COMM 3583 Persuasion
    - COMM 3565 Argumentation: Reason in Communication
    - COMM 3443 Intro to Rhetorical Theory
    - COMM 4113 Legal Communication
  - Area 3:
    - PHIL 2003 Intro to Philosophy
    - PHIL 2103 Ethics
    - PHIL 2203 Logic
    - PHIL 3103 Ethics in Professions
    - PHIL 4413 Philosophy of Law

Bumpers College Electives (9 hours)
General Electives (20-23 hours)

124 Total Hours

Additional Requirements for Agricultural Economics Concentration (24 hours)

- WCOB 1023 Business Foundations
- WCOB 2033 Acquiring & Managing Human Capital
- ECON 3033 Microeconomic Theory
- ECON 3133 Macroeconomic Theory
- AGEC 3373 Futures and Options Markets
- AGEC 4313 Agricultural Business Management or AGEC 4323 Agribusiness Entrepreneurship
- Six hours of electives from MATH or STAT or six hours of upper division electives from AGEC or six hours of any upper division courses in WCOB, e.g., ACCT, ECON, FINN, ISYS, MKTG, MGMT.

Bumpers College Electives (9 hours)
General Electives (20-23 hours)

124 Total Hours

The approved list of courses, check sheet, and degree program for all concentrations are available in the Agricultural Economics and Agribusiness departmental office.

Agricultural Business Management and Marketing Concentration Eight-Semester Degree Program

Students wishing to follow the degree plan in Agricultural Economics and Agribusiness should see page 42 in the Academic Regulations chapter for university requirements of the program. The Agricultural Economics and Agribusiness major has three concentrations: Agricultural Business Management and Marketing, Pre-Law, and Agricultural Economics.
### Minor in Agricultural Business (AGBS-M)

The Agricultural Business Minor will consist of 18 semester hours to include AGEC 1103 Principles of Agricultural Microeconomics and AGEC 2303 Introduction to Agribusiness:

- 6 hours from:
  - AGEC 3303 Food and Agricultural Marketing
  - AGEC 3373 Futures and Options Markets
  - AGEC 3403 Farm Business Management
  - AGEC 3413 Principles of Environmental Economics
  - AGEC 4313 Agricultural Business Management; and
  - 6 hours to be selected from the following:
    - AGEC 2103 Principles of Agriculture Macroeconomics
    - AGEC 2143 Agribusiness Financial Records
    - AGEC 2403 Quantitative Tools for Agribusiness
    - AGEC 3303 Food and Agricultural Marketing
    - AGEC 3313 Agribusiness Sales

### Minor in Global Agricultural, Food and Life Sciences (AFLS-M)

The Bumpers College offers a minor in global agricultural, food and life sciences to provide students throughout the college opportunities to complement their major field of study with an international component. It is designed to provide learning skills and international experiences leading to greater understanding of global issues in agriculture, human and environmental sciences and the ability to participate effectively in diverse cultures.

This minor will consist of 18 semester hours to include:

- AFLS 2003 Introduction to Global Agricultural, Food and Life Sciences (3 hours)
- AFLS 300V Study Abroad (3 to 6 hours)
- Select one of the following:
  - AFLS 3313H Honors Global Issues in AFLS (and Study Tour)
  - AGEC 4163 Agricultural and Rural Development
  - AGEC 4613 Domestic and International Agricultural Policy
  - HESC 4653 Global Travel and Tourism Management;

Additional upper-division courses in the Sam M. Walton College of Business may be substituted with approval, provided prerequisites for those courses have been satisfied outside the minor.

A student planning to minor in Agricultural Business should contact the program adviser for consultation and more detailed information.

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<td>Introduction to Agribusiness</td>
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ANIMAL SCIENCE (ANSC)

Keith Lusby
Head of the Department
B114 Agriculture, Food, and Life Sciences Building
479-575-4351
http://www.uark.edu/depts/animals/

• University Professor Yazwinski
• Professors Apple, Brown (A.H.), Coffey, Jennings, Johnson, Kegley, Kellogg, Lusby, Maxwell, Pennington, Roeder, Rorie, Rosenkerns, Troxel
• Adjunct Professors Brown (M.A.), Baird, Burke, Chewning, Coblenz, Friesen, Laurence, Looper, Nugent
• Associate Professors Beck, Jones, Kreider, Pohlman, Powell
• Assistant Professors Barnham, Gadberry, Jack
• Adjunct Assistant Professor Roeder (M.)
• Instructor Kutz

The animal science major is designed to provide the scientific and technical education to prepare students for positions of leadership and responsibility. Students gain valuable experience pertaining to the production of beef and dairy cattle, swine, horses, sheep, and companion animals. In addition, extensive study is offered in the specialized areas of animal health, breeding and genetics, meat science, nutrition, and physiology.

Students majoring in animal science are prepared for a variety of careers. Pre-veterinary, pre-medical, and pre-professional course requirements may be fulfilled while meeting degree requirements. Specific career opportunities include positions and services related to the production, merchandising, processing and distribution of meat, milk, and related products. Additional opportunities include field persons, farm and herd managers, and other agribusiness-related positions. With additional academic training, animal science majors may become extension livestock specialists, nutritionists, geneticists, and physiologists.

Students should consult an animal science adviser for specific course selections in the elective areas. With appropriate advising, students have an opportunity to complete at least one minor within the 124-hour degree program.

Requirements for a Major in Animal Science (See page 40 for University Core and page 71 for B.S.A. requirements)

English/Communications (12-15 hours)
English University Core Courses (6 hours)
ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
COMM 1313 Fundamentals of Communication
Communication Intensive Elective from an approved course list. (See adviser)

Mathematics University Core Course (3 hours) – See page 40

Science University Core Courses and Departmental Requirements (17 hours)
University Core BIOL 1543/1541L Principles of Biology and lab
BIOL 2013/2011L General Microbiology and lab
University Core CHEM 1074/1071L Fundamentals of Chemistry and lab
CHEM 2613/2611L Organic Physiological Chemistry and lab

Fine Arts and Humanities University Core Courses (6 hours)
Select in two categories from “State Minimum Arts/Humanities Core” (sections a,b,c, or d) – See page 40

US History University Core Course (3 hours)

English University Core Courses (9 hours)

American History University Core Course (9 hours)

Departmental Requirements (12-15 hours)

Animal Science Major Requirements (23 hours)

ANSC 1001L Introductory Animal Sciences Laboratory
ANSC 1032 Introductory Animal Sciences
ANSC 1041 Introduction to Companion Animal Industry or
ANSC 1051 Introduction to the Livestock Industry
ANSC 2252L Introduction to Livestock and Meat Evaluation
ANSC 2781 Career Preparation and Development
ANSC 3133 Animal Breeding and Genetics
ANSC 3143 Principles of Animal Nutrition
ANSC 3433 Fundamentals of Reproductive Physiology
Choose 7 hours from the following
ANSC 4252 Cow-Calf Management
ANSC 4263 Swine Production
ANSC 4272 Sheep Production
ANSC 4283 Horse Production
ANSC 4452 Milk Production
ANSC 4482 Companion Animal Management
ANSC 4652 Stocker-Feedlot Cattle Management
Animal Science Electives (13 hours)
ANSC 3003 Applied Animal Parasitology
ANSC 3013 Parasitisms of Domesticated Non-Herbivores
ANSC 3032 Animal Physiology I
ANSC 3042 Animal Physiology II
ANSC 3123 Principles of Genetics
ANSC 3152 Applied Animal Nutrition
ANSC 3151L Applied Animal Nutrition Laboratory
ANSC 3333 Diseases of Livestock
ANSC 3613 Meat Science
Discipline-related Electives (15 hours)
ANSC 2003 ANSC 2213 ANSC 2304
ANSC 3282 ANSC 3291 ANSC 3723
ANSC 3822 ANSC 400V ANSC 401V
ANSC 410V ANSC 4291 AGEC 1103
AGEC 2103 AGEC 2303 AGME 2903
BIOL 1601L BIOL 1603 BIOL 2531L
CHEM 1101L CHEM 1103 CHEM 1121L
CHEM 1123 CHEM 2262 CHEM 2272
CHEM 2533 PHYS 2011L PHYS 2013
FDSC 2503 PHYS 2031L PHYS 2033 POSC 2353
POSC 2363 POSC 3554 WCOB 1012
WCOB 1023
Or any upper division course in AEED, AGEC, AGME, AGST, BIOL,
CHEM, CSES, FDSC, POSC, and WCOB of which 9 hours should be
broadening electives (Bumpers College courses taken outside of departmental
code).

General Electives (20-23 hours)

124 Total Hours

Animal Science Eight-Semester Degree Program

Students wishing to follow the degree plan should see page 42 in the
Academic Regulations section for university requirements of the program.

Fall Semester Year 1
1 ANSC 1001L Intro to Animal Science Lab
2 ANSC 1032 Intro to Animal Sciences
1 ANSC 1041 Intro to Companion Animal Industry or ANSC 1051 Intro to
Livestock Industry
3 ENGL 1013 Composition I
3 MATH 1203 College Algebra or higher level math
4 BIOL 1543/1541L Principles of Biology and lab
14 Semester hours

Spring Semester Year 1
2 ANSC 2252L Intro to Livestock & Meat Evaluation
3 ENGL 1023 Composition II
2 Fine Arts/Humanities University Core Elective
3 Social Sciences University Core Elective
3 Discipline-related Elective as AFLS Broadening Elective
3 General Elective
17 Semester hours

Fall Semester Year 2
1 ANSC 2781 Career Preparation & Development
3 ANSC 3433 Fundamentals of Reproductive Physiology
3 CHEM 1074/1071L Fund. of Chemistry and lab
3 COMM 1313 Fundamentals of Communication
3 History University Core Elective
15 Semester hours

Spring Semester Year 2
3 ANSC 3133 Animal Breeding & Genetics
4 CHEM 2613/2611L Organic Physiological Chemistry
3 ENGL 2003 Advanced Composition or Exemption Elective
3 Fine Arts/Humanities University Core Elective
3 Discipline-related Elective as AFLS Broadening Elective
16 Semester hours

Fall Semester Year 3
5 Animal Science Electives

3 Communication Intensive Elective from an approved course list.
4 BIOL 2013/2011L General Microbiology and lab
3 Social Science University Core Elective
2 Discipline-related Elective
17 Semester hours

Spring Semester Year 3
5 Animal Science Electives
3 ANSC 3143 Principles of Animal Nutrition
3 Social Science University Core Elective
3 Discipline-related Elective as AFLS Broadening Elective
3 General Elective
17 Semester hours

Fall Semester Year 4
3 Animal Science Elective
2-5 ANSC Production/Management Elective
6-9 General Electives
11-17 Semester hours

Spring Semester Year 4
2-5 ANSC Production/Management Elective
4 Discipline-related Electives
5-8 General Electives
11-17 Semester hours
124 Total Hours

Minor in Animal Science (ANSC-M)

A minor in Animal Science prepares students for jobs in the animal indus-
tries and consists of 20 hours to include
ANSC 1032/1001L Introductory to Animal Sciences and lab
ANSC 1041 Introduction to Companion Animal Industry or
ANSC 1051 Introduction to the Livestock Industry
ANSC 2252L Introduction to Livestock and Meat Evaluation
ANSC 3133 Animal Breeding and Genetics
ANSC 3143 Principles of Animal Nutrition
ANSC 3433 Fundamentals of Reproductive Physiology
and 5 hours from the following production and management courses:
ANSC 4252 Cow-Calf Management
ANSC 4263 Swine Production
ANSC 4272 Sheep Production
ANSC 4283 Horse Production
ANSC 4452 Milk Production
ANSC 4652 Stocker-Feedlot Cattle Management
A student planning to minor in animal science must consult with an
animal science adviser.

Minor in Equine Science (EQSC-M)

A minor in Equine Science prepares students for jobs in the equine indus-
try and is available to all students. A student planning to minor in Equine
Science must notify the program adviser for consultation and more detailed
information.

The minor consists of 20 hours to include
ANSC 1032 Introductory Animal Sciences
ANSC 1041 Introduction to Companion Animal Industry
ANSC 2003 Introduction to Equine Industry
ANSC 3723 Horse and Livestock Merchandising
ANSC 3822 Equine Law
ANSC 3433 Fundamentals of Reproductive Physiology
ANSC 4283 Horse Production
and 3 hours from any of the following courses:
ANSC 401V Internship in Equine Sciences
ANSC 3143 Principles of Animal Nutrition
ANSC 3133 Animal Breeding and Genetics
CROP MANAGEMENT (CPMG)

David E. Longer
CPMG Coordinator
115 Plant Sciences Building
479-575-2354

Opportunities for employment and post-graduate study are numerous for graduates of the Department of Crop, Soil, and Environmental Sciences. Crop Management graduates become involved in crop production or find employment in public agencies providing support services for agriculture (e.g., Extension Service, State Plant Board, Natural Resources Conservation Service), or as consultants serving production agriculture, in the agrichemical and seed industries, and in agricultural research programs.

The crop management major includes courses in plant breeding and genetics, crop and forage production, pest management (weeds, insects, and plant diseases), and soil fertility.

Requirements for a Major in Crop Management (See page 40 for University Core and page 71 for B.S.A. requirements)

**English/Communications** (15 hours)
- English University Core Courses (6 hours)
- ENGL 2003 Advanced Composition or Exemption Course

**Science University Core Courses and Departmental Requirements** (23-24 hours)
- University Core BIOL 1543/1541L Principles of Biology and lab
- University Core BIOL 1613/1611L Plant Biology and lab
- CHEM 1103/1101L University Chemistry I and lab
- CHEM 1123/1121L University Chemistry II and lab
- CHEM 2613/2611L Organic Physiological Chemistry and lab
- BIOL 4304 Plant Physiology or ANSC/POSC 3123 Principles of Genetics or BIOL 2323 General Genetics

**Fine Arts/Humanities University Core Courses** (6 hours)
- Select in two categories from “State Minimum Arts/Humanities Core” (sections a,b,c, or d) – See page 40

**US History University Core Course** (3 hours)

**Social Sciences University Core Courses** (9 hours)
- University Core AGEC 1103 Principles of Agri Microeconomics (required)

- 6 hours selected from other listed fields of study – See page 40

**Students in Agricultural Business minor should choose AGEC 2103 Principles of Agri Microeconomics**

**CPMG Major Requirements** (27 hours)
- General Agronomy (these 19 hours are required)
- CSES 1011 Introduction to Crop, Soil, and Environmental Sciences
- CSES 2103 Crop Science
- CSES 2101L Crop Science Lab
- CSES 2203 Soil Science
- CSES 2201L Soil Science Laboratory
- CSES 4013 Advanced Crop Science
CSES 4224 Soil Fertility with lab component  
CSES 462V Internship or CSES 400V Special Problems (3 hours)  
Select 8 hours from groups A and B - (at least 2 courses from Group A)  

**Group A:**  
CSES 3113 Forage Management  
CSES 3312 Cotton Production  
CSES 3522 Soybean Production  
CSES 3332 Rice Production  
CSES 3342 Cereal Grain Production  
CSES 400V SP: (CCA Review/Certification) 1 hour  
HORT 2303 Intro to Turfgrass Management  

**Group B:**  
CSES 3214 Soil Resources and Nutrient Cycles  
CSES 4103 Plant Breeding with lab component  
CSES 4234 Plant Anatomy with lab component  
CSES 4253 Soil Classification and Genesis with lab component  
CSES 355V Soil Profile Descriptions (1-2 hours)  
CSES 400V Special Problems (1-6 hours)  
PLPA 4333 Intro to Biotechnology  

**Pest Management** (10 hours)  
ENTO 3013 Introduction to Entomology  
PLPA 3004 Principles of Plant Pathology with lab component  
CSES 4133 Weed ID, Morphology and Ecology with lab component  
Select an additional 9 hours from either Group C or Group D for a minor:  

- **Group C (Pest Management):**  
  CSES 4143 Principles of Weed Control with lab component  
  PLPA 4103 Plant Disease Control  
  ENTO 4123 Insect Pest Management I, or ENTO 4133 Advanced Applied Entomology with lab component  

- **Group D (Agricultural Business):**  
  AGEC 2303 Intro. to Agribusiness  
  AGEC 3403 Farm Business Management  
  AGEC 3303 Food and Agricultural Marketing, or AGEC 3373 Futures and Options Markets, or AGEC 3413 Principles of Environmental Economics, or AGEC 4313 Agricultural Business Management  

**General Electives** (16-18 hours)  

**124 Total hours**  

**Crop Management Nine-Semester Degree Program**  
Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

### Fall Semester Year 1  
| 3 | ENGL 1013 Composition I  
| 3 | MATH 1203 College Algebra or higher level math  
| 4 | BIOL 1543/1541L Principles of Biology and lab  
| 3 | History University Core Elective  
| 1 | CSES 1011 Introduction to CSES  
| 14 | Semester hours  

### Spring Semester Year 1  
| 4 | CSES 2103/2101L Crop Science and lab  
| 4 | BIOL 1613/1611L Plant Biology and lab  
| 3 | ENGL 1023 Composition II  
| 3 | COMM 1313 Fundamentals of Communication  
| 3 | AGEC 1103 Agricultural Microeconomics  
| 17 | Semester hours  

### Fall Semester Year 2  
| 4 | CHEM 1103/1101L Chemistry I and lab  
| 3 | ENGL 2003 Advanced Composition or if exempt ENGL 3053 Technical & Report Writing - See page 41  
| 3 | Social Science University Core Elective  
| 3 | Fine Arts/Humanities University Core Elective  
| 2-3 | Select one (1) course from Group A on checksheet  
| 15-16 | Semester hours  

### Spring Semester Year 2  
| 4 | CHEM 1123/1121L Chemistry II and lab  
| 3 | AGME 2903 Applications of Microcomputers or AGST 4023 Principles of Experimentation or STAT 2303 Biostatistics  
| 3 | Social Science University Core Elective  
| 3 | Fine Arts/Humanities University Core Elective  
| 2-3 | Select one (1) course from Group A on checksheet  
| 15-16 | Semester hours  

### Fall Semester Year 3  
| 4 | PLPA 3004 Principles of Plant Pathology with lab component  
| 3 | ENTO 3013 Introduction to Entomology  
| 2-4 | Select one (1) course from Group B on checksheet  
| 4 | CSES 2203/2201L Soil Science and lab  
| 3 | General Elective (Rec: CSES 2003 as pre-requisite for CSES 4133)  
| 16-18 | Semester hours  

### Spring Semester Year 3  
| 3-4 | BIOL 2323 General Genetics or BIOL 4304 Plant Physiology or ANSC/POSC 3123 Principles of Genetics  
| 4 | CHEM 2613/2611L Organic Physiological Chemistry and lab  
| 3 | Select one (1) course from Group C or Group D for a minor  
| 3 | General Elective  
| 13-14 | Semester hours  

### Summer Semester Year 3  
| 3 | CSES 462V Internship or CSES 400V Special Problems  

### Fall Semester Year 4  
| 3 | CSES 3023 CSES Colloquium  
| 3 | CSES 4133 Weed Identification, Morphology & Ecology  
| 4 | CSES 4224 Soil Fertility with lab component  
| 3 | Select one (1) course from Group C or Group D for a minor  
| 3 | General Elective  
| 16 | Semester hours  

### Spring Semester Year 4  
| 3 | CSES 4013 Advanced Crop Science  
| 3 | Select one (1) course from Group C or Group D for a minor  
| 6 | General Electives  
| 1-3 | General Elective  
| 13-15 | Semester hours  
| 124 | Total Hours  

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**ENVIRONMENTAL, SOIL, AND WATER SCIENCE (ESWS)**

Mary C. Savin  
ESWS Coordinator  
115 Plant Sciences Building  
479-575-5740  

Opportunities for employment and post-graduate study are numerous for graduates of the Department of Crop, Soil, and Environmental Sciences. Environmental, Soil, and Water Science graduates find jobs with environmental consulting companies, environmental education organizations, state agencies (e.g., Extension Service, Department of Environmental Quality, Health...
Requirements for a Major in Environmental, Soil, and Water Science (See page 40 for University Core and page 71 for B.S.A. requirements)

**English/Communications (12-15 hours)**
- English University Core Courses (6 hours)
- ENGL 2003 Advanced Comp or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication
- CSES 3023 Agronomy Colloquium or AGED 3142/3141L Agri Communications and lab or any AFLS approved communication course

**Mathematics University Core Course and Departmental Requirements (6 hours)**
- University Core MATH 2043 Survey of Calculus (3 hours)
- AGST 4023 Principles of Experimentation or STAT 2303 Principles of Statistics or STAT 2032 Biostatistics

**Science University Core Courses and Departmental Requirements (35-36 hours)**
- University Core BIOL 1543/1541L Principles of Biology and lab
- BIOL 2013/2011L General Microbiology and lab
- BIOL 3863/3861L General Ecology and lab or ENSC 3223/3221L Ecosystems Assessment and lab
- BIOL 1613/1611L Plant Biology and lab or CSES 1203 Introduction to Plant Sciences
- University Core CHEM 1103/1101L University Chem I and lab
- CHEM 1123/1121L University Chem II and lab
- CHEM 2613/2611L Organic Physiological Chemistry and lab
- GEOG 1113/1111L General Geology and lab
- PHYS 2013/2011L College Physics and lab
- Social Sciences University Core Elective
- Fine Arts/Humanities University Core Elective

**Fine Arts/Humanities University Core Courses (6 hours)**
Select in two categories from “State Minimum Arts/Humanities Core” (sections a, b, c, or d) – See page 40

**US History University Core Course (3 hours)**

**Social Sciences University Core Courses (9 hours)**

**ESWS Major Requirements (20-31 hours)**
- Environmental Science Core (11 hours, required)
  - CSES 1011 Introduction to CSES
  - ENSC 1003 Environmental Science
  - CSES 2203 Soil Science
  - CSES 2201L Soil Science Lab
  - ENSC 3003 Introduction to Water Science
  - Select second Soil Science core (3-4 hours)
  - CSES 3214 Soil Resources with lab component
  - CSES 4224 Soil Fertility with lab component
  - CSES 4253 Soil Classification & Genesis with lab component
  - ENSC 4263 Environmental Soil Science
  - Select second Water Science core (3-4 hours)
  - ENSC 4023 Water Quality with lab component
  - GEOG 3333 Oceanography
  - GEOG 4033 Hydrogeology with lab component
  - BIOL 4814 Limnology with lab component
- Natural Resources Core (Select 12 credit hours from at least 2 of the following 3 groups)
  - Methods/Techniques in Environmental Science
  - CSES 355V Soil Profile Descriptions
  - AGME 3153 Surveying in Agriculture and Forestry
  - ENSC 3603 GIS for Environmental Science
  - ENSC 4034 Analysis of Environmental Contaminants with lab component
- Environment & Society
  - AGEC 3413 Principles of Environmental Economics
  - AGEC 3503 Agricultural Law
  - ENSC 3933 Environmental Ethics
  - RSOC/SOCI 4603 Environmental Sociology
  - Environmental Management
  - CSES 2013 Pest Management
  - ENSC 3103 Plants & Environmental Restoration
  - ENSC 3263 Env. Soil & Water Conservation with lab component

**General Electives (18-24 hours)**

**124 Total hours**

Environmental science courses transferred from Northwest Arkansas Community College, University of Arkansas at Fort Smith, and the University of Arkansas at Little Rock can be used to fulfill selected ESWS requirements. Consult an academic adviser to verify transfer applicability.

Environmental, Soil, and Water Science Eight-Semester Degree Program

Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>Spring Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td>3 ENGL 1023 Composition II</td>
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<tr>
<td>3 ENSC 1003 Environmental Science</td>
<td>3 History University Core elective</td>
</tr>
<tr>
<td>1 CSES 1011 Introduction to CSES</td>
<td>3-4 CSES 1203 Introduction to Plant Sciences or BIOL 1613/1611L Plant Biology and lab</td>
</tr>
<tr>
<td>3 Science University Core – BIOL 1543/1541L Principles of Biology and lab</td>
<td>3 Social Sciences University Core Elective</td>
</tr>
<tr>
<td>3 Social Sciences University Core Elective</td>
<td>3 General Elective (Rec- MATH 1203 as pre-requisite for CHEM 1103 and MATH 2043 or could apply elective toward a minor)</td>
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<tr>
<td>17 Semester hours</td>
<td>15-16 Semester hours</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
<th>Spring Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 2003 Advanced Composition or Exemption Elective</td>
<td>4 CHEM 1123/1121L Chemistry II and lab</td>
</tr>
<tr>
<td>3 ENSC 3003 Introduction to Water Science</td>
<td>3 Fine Arts/Humanities University Core Elective</td>
</tr>
<tr>
<td>4 Science University Core – CHEM 1103/1101L Chemistry I and lab</td>
<td>3 Social Sciences University Core Elective</td>
</tr>
<tr>
<td>3 COMM 1313 Fundamentals of Communications</td>
<td>4 ENSC 4263 Environmental Soil Science</td>
</tr>
<tr>
<td>3 MATH 2043 Survey of Calculus</td>
<td>3 GEOL 1113/1111L Geology and lab</td>
</tr>
<tr>
<td>16 Semester hours</td>
<td>3 General Elective (Rec- MATH 1213 as pre-requisite for PHYS 2013 or could apply elective toward a minor)</td>
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<tr>
<td></td>
<td>17 Semester hours</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 CSES 2203/2201L Soil Science and lab</td>
<td></td>
</tr>
<tr>
<td>4 PHYS 2013/2011L College Physics I and lab</td>
<td></td>
</tr>
<tr>
<td>3 Water Science or Natural Resources Core</td>
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</tr>
</tbody>
</table>

University of Arkansas, Fayetteville
**Minor in Crop Biotechnology (CBIO-M)**

The Crop Biotechnology Minor will consist of 18 semester hours of courses and will include the following:

- PLPA 4333 Biotechnology in Agriculture
- CSES/ENSC 4263 Environmental Soil Science
- CSES 4224 Soil Fertility
- CSES 4234 Plant Anatomy

A student planning to minor in Crop Biotechnology must notify the program adviser for consultation and more detailed information.

**Minor in Crop Management (CPMG-M)**

The Crop Management Minor will consist of 18 semester hours of 2000-level courses or above including CSES 2103 and CSES 2203 and an additional 12 hours from the courses listed below, with at least two courses from Group A.

**Group A:**
- CSES 3113 Forage Management
- CSES 3312 Cotton Production
- CSES 3322 Soybean Production
- CSES 3332 Rice Production
- CSES 3342 Cereal Grain Production

**Group B:**
- CSES 2003 Introduction to Weed Science
- CSES 3214 Soil Resources and Nutrient Cycles
- CSES 4013 Advanced Crop Science
- CSES 4103 Plant Breeding
- CSES 4133 Weed Identification, Morphology, and Ecology

A student planning to minor in Crop Management must notify the program adviser for consultation and more detailed information.

**Minor in Environmental, Soil, and Water Science (ESWS-M)**

The Environmental, Soil, and Water Science Minor will consist of 18 semester hours of courses to be selected from the following three groups.

**Group A:** Environmental science (6 hours)
- ENSC 1003 Environmental Science and
- 3 additional hours from
  - AGEC 3413 Principles of Environmental Economics
  - AGEC 3503 Agricultural Law I
  - BIOL 3863/3861L General Ecology and lab
  - ENSC 3223/3221L Ecosystems Assessment and lab
  - ENSC 3103 Plants and Environmental Restoration
  - ENSC 3603 GIS for Environmental Science
  - ENSC 3263 Environmental Soil and Water with lab component
  - ENSC 3933 Environmental Ethics
  - ENSC 4034 Analysis of Environmental Contaminants
  - GEOG 1113/1111L General Geology and lab
  - RSOC/SOCI 4603 Environmental Sociology

**Group B:** Soil science (6 hours)
- CSES 2203 Soil Science and
- 3 additional hours from
  - CSES 3214 Soil Resources and Nutrient Cycles
  - CSES 355V Soil Profile Description
  - CSES 4224 Soil Fertility with lab component
  - CSES 4253 Soil Classification and Genesis with lab component
  - CSES/ENSC 4263 Environmental Soil Science

**Group C:** Water science (6 hours)
- ENSC 3003 Introduction to Water Science and
- 3 additional hours from
  - ENSC 4023 Water Quality with lab component
  - ENSC 4034 Analysis of Environmental Contaminants
  - ENSC 4053 Hydrogeology with lab component or
  - BIOL 4814 Limnology with lab component

A student planning to minor in Environmental, Soil, and Water Science must notify the program adviser for consultation and more detailed information.

**Minor in Wildlife Habitat (WLHA-M)**

The Wildlife Habitat Minor will consist of 20 semester hours of courses and will include the following:

**Group A (12 hours)**
- CSES 1203 Plant Science (or CSES 2103, Crop Science, or BIOL 1613/1611L, Plant Biology)
- CSES 2203 Soil Science
- ENSC 3103 Plants and Environmental Restoration
- BIOL 480V Special Problem in Biology (Wildlife Management Techniques)

* A maximum of 9 hours of CSES or ENSC course work will be allowed to count towards the student’s major as well as the minor.

The remaining minimum of 8 hours will come from the following groups with at least one course from each group:

**Group B**
- ENSC 1003 Environmental Science
- ENSC 3003 Introduction to Water Science
- ENSC 3223/3221L Ecosystems Assessment and lab
- ENSC 3603 GIS for Environmental Science
- BIOL 3863/3861L General Ecology and lab

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SEE PAGE 335 FOR CROP, SOIL, AND ENVIRONMENTAL SCIENCE (CSES) COURSES AND SEE PAGE 346 FOR ENVIRONMENTAL SCIENCE (ENSC) COURSES.
FOOD SCIENCE (FDSC)

Ron Baescher
Head of the Department
N-201 Food Science Building
479-575-4605
http://www.foodscience.uark.edu/

- Distinguished Professor Morris
- University Professors Hettiarachachy, Siebenmorgen
- Professors Baescher, Crandall, Howard, Johnson, Meullenet, Proctor, Ricke
- Associate Professor Wang
- Assistant Professors Devareddy, Morawicki
- Adjunct Faculty Members Ahn, Apple (N.), Brady, Foote, King, Li, Marcy, Morri (M.), Owens, Pohlman, Prior

Food Science is the application of science and technology to processing, packaging, safety, product invention and distribution of food products. Food science deals with all aspects of food between production and consumption and involves many disciplines, including chemistry, microbiology, nutrition, engineering and sensory science.

Food science prepares students for many interesting, rewarding and challenging professional career opportunities in industry, business, governmental and educational organizations associated with food and food-related products. Due to the diversity and abundance of opportunities available, students graduating with a B.S.A. in food science readily obtain employment or continue studies for graduate school. Additionally, requirements for several pre-professional programs can be fulfilled while meeting requirements for the food science degree.

Students may choose one of two areas of concentration for their degree program: Food Science (FDSC) or Food Technology (FDTN). The FDSC concentration at the University of Arkansas is one of only 53 programs in the United States and the only one in Arkansas that is approved by the Institute of Food Technologists. It provides students with a strong background in basic and applied sciences and food chemistry, microbiology, analysis, quality and engineering.

The FDTN concentration provides students interested in food business and management careers with an integrated background in food science and business. With proper course selection, students in the food technology concentration can complete a minor in agribusiness or general business while completing their core requirements, thus leaving elective hours available for further educational enhancement.

Students in both concentrations are offered opportunities for research, internships, international experiences and selection of a minor.

Requirements for a Major in Food Science (FDSC) (See page 40 for University Core and page 71 for B.S.A. requirements)

English/Communications (12-15 hours)
- English University Core Courses (6 hours)
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information.
- COMM 1313 Fundamentals of Communication
- AGED 3142/3141L Agri Communications and lab or ENGL 3053 Technical and Report Writing

Mathematics University Core Course and Departmental Requirements (12-13 hours)
- University Core MATH 1203 College Algebra
- FDSC Concentration:
  - MATH 1213 Plane Trigonometry
  - MATH 2554 Calculus I
- STAT 2303 Principles of Statistics or STAT 2023 Biostatistics or PSYC
2013 Intro to Statistics for Psychologists or AGST 4023 Principles of Experimentation
FDSC Concentration:
MATH 2043 Survey of Calculus
MATH 2053 Finite Mathematics
AGEC 2403 Quantitative Tools for Agribusiness, AGST 4023 Principles of Experimentation, STAT 2303 Principles of Statistics or WCOB 1035 Data Analysis and Interpretation

Science University Core Courses and Departmental Requirements
(20-27 hours)
University Core BIOL 1543/1541L Principles of Biology and lab
BIOL 2013/2011L General Microbiology and lab
CHEM 1103/1101L University Chemistry I and lab
University Core CHEM 1123/1121L University Chemistry II and lab
FDSC Concentration:
CHEM 2613/2611L Organic Physiological Chemistry and lab or
CHEM 3603/3601L Organic Chemistry I and lab
CHEM 3813 Introduction to Biochemistry
PHYS 2013/2011L College Physics I and lab
FDSC Concentration:
CHEM 2613/2611L Organic Physiological Chemistry and lab
Fine Arts and Humanities (6 hours)
Select in two categories from “State Minimum Fine Arts, Humanities Core” (sections a, b, c or d) See page 40.

US History University Core Course (3 hours) See page 40.
Social Sciences University Core Courses (9 hours)
FDSC Concentration:
9 hours selected from listed fields of study – See page 40
FDTN Concentration:
AGEC 1103 Ag Microeconomics and AGEC 2103 Ag Macroeconomics or
ECON 2013 Macroeconomics and ECON 2023 Microeconomics
3 hours selected from other listed fields of study – See page 40
FDSC Core Requirements (11 hours)
AFLS 1011 Freshman Orientation
FDSC 1011 Food Science Orientation
FDSC 1103 Introduction to Food Science
FDSC 3103 Principles of Food Processing with lab component
FDSC 4713 Food Product & Process Development with lab component
Additional Requirements for Food Science Concentration (22 hours)
HESC 1213 Nutrition in Health
FDSC 4114 Food Analysis with lab component
FDSC 4124 Food Microbiology with lab component
FDSC 4304 Food Chemistry with lab component
FDSC 4754 Engineering Principles of Food Processing with lab component
FDSC 4413 Sensory Evaluation of Food with lab component or FDSC 4203 Quality Evaluation and Control with lab component
Additional Requirements for Food Technology Concentration (29 hours)
FDSC 2503 Food Safety and Sanitation
FDSC 3202 Introduction to Food Law
FDSC 4203 Quality Evaluation and Control with lab component
FDSC 431V (3 hours) Internship in Food Science
FDSC 4413 Sensory Evaluation of Food with lab component
AGEC 2143 Agribusiness Financial Records or WCOB 1023 Business Foundations
WCOB 1120 Computer Competency Requirement
AGEC 4313 Agricultural Business Management or WCOB 2033 Acquiring and Managing Human Capital

Food Science Eight- or Nine-Semester Degree Programs
Students wishing to follow the degree plan in Food Science should see page 42 in the Academic Regulations chapter for university requirements of the program. The Food Science major has two concentrations: Food Science and Food Technology.

Fall Semester Year 1
4  Science University Core BIOL 1543/1541L Principles of Biology and lab
3  University Core MATH 1203 College Algebra
3  University Core ENGL 1013 Composition I
1  AFIS 1011 Freshman Orientation
1  FDSC 1011 Food Science Orientation
3  University Core in Fine Arts/Humanities or Social Science or History
15  Semester hours

Spring Semester Year 1
3  FDSC 1103 Introduction to Food Science
3  CHEM 1103 University Chemistry I
3  University Core ENGL 1023 Composition II
3  University Core in Fine Arts/Humanities or Social Science or History (FDTN: AGEC 1103 Ag Microeconomics or ECON 2013 Macroeconomics)
FDSC concentration:
3  MATH 1213 Plane Trigonometry
FDTN concentration:
3  COMM 1313 Fundamentals of Communication
0  WCOB 1120 Computer Competency Requirement
15  Semester hours

Fall Semester Year 2
4  Science University Core CHEM 1123/1121L University Chemistry II and lab
1  CHEM 1101L University Chemistry I lab (Credit earned when CHEM 1121L is completed with grade of “C” or better)
FDSC concentration:
4  MATH 2554 Calculus I
3  COMM 1313 Fundamentals of Communication
3  University Core in Fine Arts/Humanities or Social Science or History
FDTN concentration:
3  MATH 2053 Finite Mathematics
3  FDSC 2503 Food Safety and Sanitation
3  AGEC 2143 Agribusiness Financial Records or WCOB 1023 Business Foundations
1  General Elective
15  Semester hours

Spring Semester Year 2
4  CHEM 2613/2611L Organic Physiological Chemistry and lab
3  University Core in Fine Arts/Humanities or Social Science or History (FDTN: AGEC 2103 Ag Macroeconomics or ECON 2023 Microeconomics)
3  Statistics Elective
FDSC concentration:
4  BIOL 2013/2011L General Microbiology and lab
3  HESC 1213 Nutrition in Health
FDTN concentration:
3  MATH 2043 Survey of Calculus
3  General Elective
16-17  Semester hours
### Minor in Food Science (FDSC-M)

The Food Science Minor will consist of 18 semester hours to include the following courses:

- FDSC 3103 Principles of Food Processing with lab component
- FDSC 4124 Food Microbiology with lab component
- FDSC 4304 Food Chemistry with lab component

and a minimum of 7 hours selected from the following courses:

- FDSC 2503 Food Safety and Sanitation
- FDSC 3202 Introduction to Food Law
- FDSC 4114 Food Analysis with lab component
- FDSC 4203 Quality Evaluation and Control with lab component
- HESC 1213 Nutrition in Health

A student planning to minor in food science must consult a Department of Food Science adviser.

SEE PAGE 348 FOR FOOD SCIENCE (FDSC) COURSES

### HORTICULTURE (HORT)

David L. Hensley  
Head of the Department  
316 Plant Sciences Building  
479-575-2603  
http://hort.uark.edu/

- University Professor Morelock
- Professors Clark, Hensley, Murphy, Robbins, Richardson, Rom (C.)
- Associate Professors Andersen, Carson, Evans, Garcia, Karcher, Lindstrom, Srivastava
- Assistant Professors Patton, McDonald
- Distinguished Professor Emeritus Moore
- University Professor Emeritus Rom (R.)
- Professors Emeriti Bradley, Einert, Huang, Klingaman, Martin, McFerran
- Associate Professor Emeritus King

The Department of Horticulture offers a broad, science-based degree with technical training: Horticulture, Landscape and Turf Sciences (HLTS).

Horticulture, landscape and turf management involves selection, production, management, marketing, use and research of ornamental crops (shrubs, trees, flowers, and turf), edible crops (herbs, vegetables and fruits) and turf grasses for the economic, nutritional, aesthetic and recreational well being of society. The major provides education and training in basic and applied sciences, arts and humanities, communication, and business and economics, to provide an understanding of the underlying principles in plant development and management, marketing, use and research of ornamental crops, and a practical, hands-on experience.

Job opportunities for horticulturists include horticulture crop production and management, horticulture merchandising and business, consulting, inspection, research, teaching, communications, allied industries serving horticultural producers, journalism, and developing private business. Students who specialize in landscape and aspects of ornamental horticulture will be prepared for careers in the landscape management industry, landscape nursery, landscape architectural firms, private and public gardens, and public agencies such as parks and recreation. Job opportunities for students studying turf management include golf course superintendent, sports field manager,
turfgrass science companies, seed or sod production, commercial landscape turf management, research, teaching or private consulting. Advanced study may be required for some careers.

Requirements for a Major in Horticulture, Landscape and Turf Sciences
(See page 40 for University Core and page 71 for B.S.A. requirements)

English/Communication (15 hours)

University Core Courses (6 hours)

ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information

COMM 1313 Fundamentals of Communication

Communication Intensive Elective (3 hours) see adviser

Mathematics University Core Course (3 hours)

Science University Core Courses and Departmental Requirements (17-20 hours)

University Core BIOL 1543/1541L Principles of Biology and lab

University Core BIOL 1613/1611L Plant Biology and lab

CHEM 2613/2611L Organic Physiological Chemistry and lab

Select either: CHEM 1074/1071L Fundamentals of Chemistry and lab

or CHEM 1103/1101L University Chemistry I and lab and CHEM 1123/1121L University Chemistry II and lab

Fine Arts/Humanities University Core Courses (6 hours)

Recommend LARC 1003 Basic Arts: The American Landscape

Recommend PHIL 2003 Introduction to Philosophy

US History University Core Course (3 hours)

Social Sciences University Core Courses (9 hours)

Recommend AGEC 1103 Principles of Agricultural Microeconomics

Select 6 hours from other listed fields of study – See page 40

Horticulture Core Requirements (21-22 hours)

AFLS 1011 Freshman Orientation

CSES 2203/2201L Soil Science and lab

HORT 2003 Principles of Horticulture with lab component

HORT 3901 Horticultural Career Development

HORT 4403 Plant Propagation with lab component

HORT 462(3) Horticulture Internship

Choose 6-7 hours from the following Pest Management Courses:

CSES 2003 Introduction to Weed Science with lab component

PLPA 3004 Principles of Plant Pathology with lab component

ENTO 3013 Introduction to Entomology with lab component

Horticulture Electives - select 18 hours from:

HORT 2303 Introduction to Turfgrass Management with lab component

HORT 3103 Woody Landscape Plants with lab component

HORT 3113 Herbaceous and Indoor Plants with lab component

HORT 3133 Advanced Woody Landscape Plants with lab component

HORT 3503 Vegetable Crops

HORT 3403 Commercial and Residential Turfgrass Management with lab component

HORT 4033 Professional Landscape Installation & Construction

HORT 4043 Professional Landscape Management

HORT 4103 Fruit Production Science with lab component

HORT 4503 Nursery Management with lab component

HORT 4603 Practical Landscape Planning

HORT 4703/4701L Greenhouse Management and lab

HORT 4803/4801L Greenhouse Crops Production and lab

HORT 4903 Golf and Sports Turf Management with lab component

HORT 4913 Rootzone Management for Golf and Sports Turf

HORT 4921 Golf Course Operations

HORT 400 (v) Horticulture Special Problems

HORT 401 (v) Horticulture Special Topics

Discipline-related electives – select 12 hours from:

AGME 3102/3101L Small Power Units & Turf Equipment and lab

AGME 3153 Surveying in Agriculture and Forestry

AGME 4973 Irrigation with lab component

LARC 3914 Planting Design I

LARC 2113 Design Communications I

ANSC 3123 Principles of Genetics

PHYS 1023/1021L Physics & Human Affairs and lab (or higher)

or any AGEC, BIOL, CHEM, CSES, ENSC, ENTO, HORT, PLPA, WCOB class not taken above.

General Electives (16-21 hours)

124 Total hours

Horticulture, Landscape and Turf Sciences Nine-Semester Degree Plan

Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

Fall Semester Year 1

1  AFLS 1011 Freshman Orientation

3  University Core MATH 1203 College Algebra

3  University Core ENGL 1013 Composition I

3  COMM 1313 Fundamentals of Communication

4  University Core BIOL 1543/1541L Principles of Biology and lab

14  Semester hours

Spring Semester Year 1

3  University Core ENGL 1023 Composition II

3  HORT 2003 Principles of Horticulture with lab component

3  Fine Arts/Humanities University Core

3  History Core Elective

3  Social Science Core

1  General Elective

16  Semester hours

Fall Semester Year 2

5  CHEM 1074/1071L Fundamentals of Chemistry and lab

3  Communication Intensive Class

6  Horticulture Electives

14  Semester hours

Spring Semester Year 2

4  University Science Core BIOL 1613/1611L Plant Biology and lab

3  Fine Arts/Humanities University Core

3  ENGL 2003 Advanced Composition or Exemption Elective

1  HORT 3901 Horticulture Career Development

3  Discipline-related Elective

3  General Elective

17  Semester hours

Fall Semester Year 3

4  CSES 2203/2201L Soil Science and lab

3-4  Pest Management Elective

3  Horticulture Elective

3  Social Sciences University Core Elective

3  Discipline-related Elective

16-17  Semester hours

Spring Semester Year 3

4  CHEM 2613/2611L Organic Chemistry and lab

3-4  Discipline-related Elective

3  HORT 4403 Plant Propagation with lab component

3  Horticulture Elective

13-14  Semester hours

Summer Semester Year 3

3  HORT 462V Summer Internship
Fall Semester Year 4

<table>
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<tr>
<th>Hours</th>
<th>Course Description</th>
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<td>2-3</td>
<td>Discipline-related Elective</td>
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<td>5-6</td>
<td>General Electives</td>
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Spring Semester Year 4

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<td>Horticulture Elective</td>
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<td>8-9</td>
<td>General Electives</td>
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<td>14-15</td>
<td>Semester hours</td>
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<td>124</td>
<td>Total Hours</td>
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</table>

Minor in Horticulture (HORT-M)

18 hours to include the following:
HORT 2003 Principles of Horticulture
HORT 4403 Plant Propagation
Select 3 hours from:
HORT 3103 Woody Landscape Plants
HORT 3113 Herbaceous and Indoor Plant Materials
HORT 3133 Advanced Woody Landscape Plants
Select 9-11 hours from:
HORT 2303, HORT 3303, HORT 400V (maximum 3 hrs), HORT 4103, HORT 4503, HORT 4703/4701L, or HORT 4803/4801L

Minor in Landscape Horticulture (LHRT-M)

18 hours to include the following:
HORT 2003 Principles of Horticulture
HORT 4043 Prof Landscape Management
Select 3 hours from:
HORT 4603 Practical Landscape Planning
LARC Studio Course
Select 3 hours from:
HORT 3103 Woody Landscape Plants
HORT 3113 Herbaceous and Indoor Plant Materials
Select 6 additional hours from:
HORT 2303, HORT 3103, HORT 3113, HORT 3403, HORT 400V (maximum 3 hrs), HORT 4103, HORT 4503, HORT 4703/4701L, HORT 4803/4801L, or LARC 3734

Minor in Turf Management (TURF-M)

19 hours to include the following:
CSES 2203/2201L Soil Science and lab
Select 6 hours from:
HORT 2303 Intro to Turfgrass Management
HORT 3403 Commercial & Residential Turfgrass Management
HORT 4903 Golf and Sports Turf Management
Select 6 hours from:
ENTO 400V (minimum 3 hrs)
HORT 3103 Woody Landscape Plants
HORT 400V (minimum 3 hrs)
HORT 4033 Prof Landscape Installation and Construction
HORT 4043 Prof Landscape Management
Select 3 hours from:
AGME 4973 Irrigation
AGME 3102/3101L Small Power Units/Turf Equipment and lab
SEE PAGE 360 FOR HORTICULTURE (HORT) COURSES

PLANT PATHOLOGY (PLPA)

Sung M. Lim
Head of the Department
217 Plant Sciences Building
479-575-2445
http://www.uark.edu/depts/plntpath/PLPA/HTML/index.html
- University Professors Robbins, TeBeest
- Professors Cartwright (R.), Correll, Kirkpatrick, Lee, Lim, Milus, Rothrock, Rupe, Weidemann
- Associate Professors Coker, Korth, Spradley
- Assistant Professors Bluhm, Monfort, Vann, Tsanetakis
- Research Assistant Professor Sayler
- Adjunct Assistant Professor Cartwright (K.)
- Adjunct Associate Professors Brooks, Chen, Jia, Yang

Plant pathology as a discipline seeks to understand the interrelationships of plants with the abiotic and biotic agents that affect plant health and productivity. The goal of the discipline is to minimize the impacts of plant diseases on agricultural production and human health. Scientific training within the department focuses on the nature, cause, and management of plant diseases caused by fungi, bacteria, viruses, and nematodes.

Plant pathology is a graduate degree program. Undergraduate students interested in plant pathology should pursue a minor in pest management or plant pathology. See page 71 for degree requirements.

Minor in Plant Pathology (PLPA-M)

A minor in Plant Pathology consists of 19 hours to include
PLPA 3004 Principles of Plant Pathology
PLPA 400V Research
PLPA 4103 Plant Disease Control
The remaining 9 hours are to be selected from the following:
BIOL 4353 Ecological Genetics
BIOL 4304 Plant Physiology
BIOL 4424 Mycology
BIOL 4443 Molecular Virology
A student planning to minor in plant pathology should notify the department of plant pathology and consult adviser.
SEE PAGE 384 FOR PLANT PATHOLOGY (PLPA) COURSES

PEST MANAGEMENT (PMGT)

Craig Rothrock
Program Coordinator
206 Plant Sciences Building
479-575-2445
- Distinguished Professor Boyd
- University Professors Meisch, Oliver, Stephen
- Professors Cartwright, Correll, Kirkpatrick, Kring, Lee, Lim, Luttrell, McLeod, Milus, Rothrock, Rupe, Steinkraus, TeBeest
- Associate Professors Burgos, Coker, Lorenz, Spradley

Minor in Pest Management (PMGT-M)

A minor in Pest Management consists of 19-20 hours to include
CSES 2003 Introduction to Weed Science
ENTO 3013 Introduction to Entomology
PLPA 3004 Principles of Plant Pathology
In addition, students must select one course from each area:
CSES 4143 Principles of Weed Control or CSES 4133 Weed Identification, Morphology, and Ecology
POULTRY SCIENCE (POSC)

Walter G. Bottje
Head of the Department
314 Poultry Science Center
479-575-4952
http://www.poultryscience.uark.edu/

- University Professors Chapman, Waldroup (P/W)
- Professors Anthony, Bottje, Coon, Erf, Goodwin, Hargis, Jones, Kuenzel, Li, Slavik, Wideman
- Research Professors Donoghue (A.), Huff (G.), Huff (W.), Rath
- Adjunct Professors Bristor, Haggard, Keck, Plue, Rholes, Rosen, Steelman, Waldroup (A.), Zelenka
- Associate Professors Clark, Donoghue (D.), Emmert, Marcy, Owens, Watkins
- Adjunct Associate Professors Story, Meullener
- Assistant Professors Bramwell, Kong, Kwon
- Adjunct Assistant Professors Blair, Breeding, Cook, Davis, Fussell, Smith
- Adjunct Research Assistant Professor Pumford

A major in poultry science is designed to provide the scientific and technical education to prepare students for positions of leadership and responsibility in the expanding fields of production, processing, marketing, and distribution of meat, eggs, and related poultry products. The curriculum also prepares students for career opportunities in specialized areas of nutrition, breeding, genetics, physiology, management, food science, immunology, and disease.

Elective hours allow students to select a minor and thus personalize their degree. Elective hours can also be used to emphasize areas of business, production, processing or science. Pre-veterinary medicine, pre-medical, or pre-pharmacy requirements may be fulfilled while meeting degree requirements.

Curricula are designed to permit the student to obtain the necessary foundation to pursue graduate study for the master's and doctoral degrees. Advanced degrees are offered but not limited to the areas of nutrition, genetics, physiology, product technology, and poultry health.

Requirements for a Major in Poultry Science (POSC) (See page 40 for University Core and page 71 for B.S.A. requirements)

**English/Communications** (15 hours)
- English University Core Courses (6 hours)
- ENGL 2013/2011L General Microbiology and lab
- University Core BIOL 1543/1541L Principles of Biology and lab
- BIOL 2013/2011L General Microbiology and lab

**University Core Courses and Departmental Requirements** (12-20 hours)
- University Core CHEM 1074/1071L Fundamentals of Chemistry and lab or CHEM 1103/1101L University Chemistry I and lab and CHEM 1123/1121L University Chemistry II and lab
- CHEM 2613/2611L Organic Physiological Chemistry and lab or CHEM 3033/3601L Organic Chemistry and lab and CHEM 3613/3611L Organic Chemistry II and lab

**Fine Arts/Humanities** (6 hours)
- Select in two categories from “State Minimum Fine Arts, Humanities Core” (sections a, b, c or d) – See page 40

**US History University Core Course** (3 hours)
- AGEC 1103 Principles of Agricultural Microeconomics or ECON 2013 Principles of Macroeconomics

**Select 6 hours from other listed fields of study – See page 40**

**POSC Major Requirements** (36 hours)
- POSC 1023 Introduction to Poultry Science and Careers with lab component
- POSC 2353 Poultry Production and Management with lab component
- POSC 2323 Poultry Diseases
- POSC 3554 Avian Anatomy with lab component
- POSC 4333 Poultry Breeding or POSC 3123 Principles of Genetics or BIOL 2323 General Genetics
- POSC 4343 Poultry Nutrition
- POSC 4901 Undergraduate Seminar

**POSC Major Electives** (Choose 10 hours from the following:)

**Poultry Science Electives** (select 6 hours from any upper division course in POSC)

**Discipline-related electives** - select 12 hours from:
- AFLS 1011/1011H Any AFLS Honors Course
- AFLS 2003 AGEC 2143 AGEC 3303
- AGEC 3313 AGEC 3373 AGEC 3403
- AGEC 3413 AGEC 3503 AGEC 3523
- AGEC 4313 AGEC 4323 AGEC 4613
- AGED 3153 AGED 4003 AGME 2903
- ANSC 1032 ANSC 1041 ANSC 2003
- ANSC 2304 ANSC 3003 ANSC 3013
- ANSC 3143 ANSC 3613 ANSC 4482
- ENDY 4043 ENSC 3003 ENSC 3933
- ENSC 4023 FDSC 2503 FDSC 3103
- FDSC 3202 FDSC 4124 FDSC 4413
- FDSC 4713 HESC 1213 HESC 2112
- HESC 2111L HESC 3203 HESC 4103
- HESC 4213 HESC 4223 HESC 4243

**General Electives** (12-20 hours)
- 8-22 hours of electives must be 3000/4000 level
- 124 Total hours

**Poultry Science Eight-Semester Degree Program**

- Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

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<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tr>
<td>4</td>
<td>University Core BIOL 1543/1541L Principles of Biology and lab</td>
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<td>3</td>
<td>University Core ENGL 1013 Composition I</td>
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<td>Semester</td>
<td>Course Title and Course Information</td>
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<td>Spring Semester Year 1</td>
<td>POSC 2553 Poultry Production and Management with lab component</td>
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<td>University Core ENGL 1023 Composition II</td>
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<td>FNAR/Humanities University Core Elective</td>
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<td>Social Science Core Elective</td>
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<td>POSC Elective (from PHYS 2013/2011L, POSC 3032, AGEC 2303, POSC 4314)</td>
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<td>15 Semester hours</td>
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<td>Fall Semester Year 2</td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective</td>
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<td>University Core CHEM 1103/1101L Chemistry I and lab or CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
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<td>POSC Elective (from PHYS 2013/2011L, POSC 3032, AGEC 2303, POSC 4314)</td>
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<td>16-17 Semester hours</td>
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<td>Communication Intensive Elective</td>
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<td>CHEM 2613/2611L Organic Physiological Chemistry and lab or CHEM 1123/1121L Chemistry II and lab (if CHEM 1103/1101L taken previous fall)</td>
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<td>Fall Semester Year 3</td>
<td>BIOL 2013/2011L General Microbiology and lab</td>
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<td>CHEM 3603/3601L Organic Chemistry and lab (if CHEM 1103/1101L and CHEM 1123/1121L taken previously) or Gen-eral Elective</td>
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<td>POSC 4333 Poultry Breeding or POSC/ANSC 3123 Principles of Genetics</td>
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<td>POSC Elective (from PHYS 2013/2011L, POSC 3032, AGEC 2303, POSC 4314)</td>
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<td>12-15 Semester hours</td>
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<td>CHEM 3613/3611L Organic Chemistry II and lab (if CHEM 3603/3601L taken previously) or General Elective</td>
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<td>POSC Elective (from PHYS 2013/2011L, POSC 3032, AGEC 2303, POSC 4314) or General Elective</td>
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<td>General Elective or BIOL 2323 General Genetics</td>
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<td>14-17 Semester hours</td>
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<td>Fall Semester Year 4</td>
<td>POSC 3223 Poultry Diseases</td>
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<td>AGEC 2403 Quantitative Tools for Agribusiness or General Elective</td>
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<td>POSC 4343 Poultry Nutrition</td>
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<td>STAT 2303 Principles of Statistics or AGST 4023 Principles of Experimentation (if AGEC 2403 not taken) or General Elective</td>
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<td>POSC 2553 Poultry Production and Management</td>
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<td>POSC 4314 Egg and Meat Technology</td>
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<td>The remaining 5 hours to be selected from any POSC course.</td>
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<td>A student planning to minor in poultry science should consult a departmental adviser.</td>
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<td></td>
<td>SEE PAGE 386 FOR POULTRY SCIENCE (POSC) COURSES</td>
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</tbody>
</table>

**Requirements for Food Safety Certificates of Proficiency**

Robert Wideman  
Program Coordinator  
O-402 Poultry Science Center  
479-575-4397

Certificates of Proficiency in Hazard Analysis and Critical Control Point (HACCP) and Food Safety Manager (FMGR) recognize students who take a concentrated core of web-based courses focused on the application of scientifically-based food safety systems through the application of HACCP systems.

Students who earn the HACCP certificate will have a working knowledge of fundamental food microbiology, food sanitation, applicable law, statistical process control, and advanced HACCP applications in food processing industries. Prerequisites for acceptance: applicants to the HACCP Coordinator Certificate of Proficiency Program must have completed a B.S. degree or have at least seven years relevant experience in the food industry.

**HACCP Certificate Requirements:**

- 15 hours of web-based courses:
  - POSC 2003 Fundamentals of Food Microbiology
  - POSC 4034 Statistical Process Control in the Food Industry
  - HLSC 4623 Human Diseases
  - FDSC 2503 Food Safety and Sanitation
  - FDSC 3202 Introduction to Food Law

  Students who earn the Food Safety Manager (FMGR) Certificate of Proficiency will have a working knowledge of advanced food microbiology, food process engineering, human diseases, and quality management as applied in food processing industries. Applicants to the Food Safety Manager Certificate of Proficiency must have completed the HACCP certificate program of study.

**FMGR Certificate requirements:**

- 15 hours of web-based courses:
  - FDSC 3753 Introduction to Food Engineering Principles
  - HLSC 4613 Principles of Epidemiology
  - FDSC 4823 Principles of Food Microbiology
  - POSC 4023 Advanced Topics in Food Safety Management
  - INEG 4323 Quality Engineering and Management
SCHOOL OF HUMAN ENVIRONMENTAL SCIENCES (HESC)

Mary M. Warnock
Director
118 Home Economics Building
479-575-4305
http://www.uark.edu/depts/hesweb/
- Professors Farmer, Martin, Turner, Warnock, Whan
- Associate Professors Apple, Bailey, Fitch-Hilgenberg, Gentry, Harrington, Killian, Miller, Robertson, Webb
- Assistant Professors Foote, Moore, Ogbeide, Sattar, Takigiku, Wallack, Way
- Instructors Baldwin, Crandall, Harding, Powell, Smith

The School of Human Environmental Sciences at the University of Arkansas prepares students for a wide variety of professional careers in education, industry, business, government, and community services. The school is concerned with improving the quality of life for individuals and families as they exist and function in society. Human environmental sciences draw knowledge from their own research, from the physical, biological, and social sciences, and from arts and humanities. It relates this knowledge to an understanding of individuals’ and families’ needs and goals for food, clothing, shelter, management of resources, and human development and relationships. The School of Human Environmental Sciences has made a substantial contribution to the development of individuals and families through undergraduate and graduate preparation of human environmental scientists and through research in human nutrition, foods, human development, family sciences, interior design, apparel and textiles.

The four majors of the B.S.H.E.S. degree have been accredited by the Council for Professional Development of the American Association of Family and Consumer Sciences.

See page 68 for list of majors, concentrations, minors.
See page 71 for college academic regulations and graduation requirements.

APPAREL STUDIES (APST)

Lona J. Robertson
Area Coordinator
209 Home Economics Building
479-575-4579

The Apparel Studies program opens the door to careers in the fashion industry. Buyer, product development specialist, fashion coordinator, sales consultant, visual display artist, and quality assurance technician are only a few of the possibilities. Classes in business, retailing, apparel production, science, social science, and the liberal arts give students a basic knowledge about the textile and apparel industries. By selecting from a variety of minors, students can tailor this program to meet their goals. Program strengths include guest speakers who provide insight into today’s careers, tours of major fashion centers, and internships, which provide valuable career experience.

Requirements for a Major in Apparel Studies (See page 40 for University Core and page 71 for B.S.H.E.S. requirements)

- English/Communications (12 hours)
  - English University Core Courses (6 hours)
  - COMM 1313 Fundamentals of Communication
  - ENGL 2003 Advanced Composition or Exemption Elective of a COMM, JOUR, ENGL, or foreign language course – See page 41 for exemption information

Mathematics University Core Courses and Departmental Requirements (9 hours)
- Mathematics University Core Course (3 hours)
- MATH 2053 Finite Math or higher level math
- Computer Course (3 hours)

Science University Core Courses (9 hours)
- CHEM 1074/1071L Fundamentals of Chemistry and lab (Students may substitute two courses in general chemistry if desired)
- BIOL 1543/1541L Principles of Biology and lab

Fine Arts/Humanities University Core Courses and Departmental Requirements (6 hours)
- 3 hours selected from “State Minimum Arts Core” (Section a)
- 3 hours selected from “State Minimum Humanities Core” (sections b, c or d) – See page 40

US History University Core Course (3 hours)

Social Sciences University Core Courses (9 hours)
- ECON 2143 Basic Economics
- PSYC 2003 General Psychology
- ANTH 1023 Intro to Cultural Anthropology or SOCI 2013 General Sociology

APST Major Requirements:

Human Environmental Sciences (55 hours)
- HESC 1501 Orientation to HESC
- HESC 1013 Intro. to Clothing Concepts
- HESC 1023 Intro. to Apparel Production
- HESC 1053 Computer-Based Methods-Apparel
- HESC 2013 Quality Assess. of Apparel
- HESC 2023 Visual Merchandising and Fashion Promotions
- HESC 2053 Intro to Textile Science with lab component
- HESC 3003 Apparel Production
- HESC 3013 Intro. Fashion Merchandising
- HESC 3033 Fashion Merchandising Methods
- HESC 4023 Adv. Apparel Merchandising
- HESC 4033 Advanced Textile Study
- HESC 4043 History of Apparel
- HESC 4053 Contemporary Apparel
- HESC 4063 Adv. Apparel Production
- HESC 4071 Apparel Studies Pre-Internship
- HESC 4082 Apparel Studies Internship
- HESC 4903 Recent Adv in Mfg and Merch
- HESC 1213 Nutrition in Health
- HESC 2413 Family Relations

Marketing (3 hours)
- MKTG 3433 Principles of Marketing

Foreign Language (6 hours)
- Must be consecutive courses in the same language

General Electives (12 hours)

124 Total Hours

Apparel Studies Ten-Semester Degree Program

Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program. A description of HESC courses is listed on page 354.

<table>
<thead>
<tr>
<th>Fall Semester Year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>University Core ENGL 1013 Composition</td>
</tr>
<tr>
<td>3</td>
<td>University Core MATH 1203 College Algebra</td>
</tr>
<tr>
<td>3</td>
<td>University Core ARTS Section a</td>
</tr>
</tbody>
</table>
### Food, Human Nutrition, and Hospitality (FHNH)

Marjorie E. Fitch-Hilgenberg  
Area Coordinator (Dietetics, General Food and Nutrition)  
23 Home Economics Building  
479-575-6815

Robert J. Harrington  
Area Coordinator (Hospitality and Restaurant Management)  
139 Carnall Hall  
479-575-4700

The curriculum in Food, Human Nutrition, and Hospitality allows students to prepare for a career in a specialized area of foods and nutrition by completing a common set of basic courses and one of the concentrations:  
A: Dietetics (DIET)  
B: General Foods and Nutrition (GFNU), and  
C: Hospitality and Restaurant Management (HRMN).

Interest and aptitude for the biological and physical sciences that support nutrition science are needed to successfully complete concentrations in Dietetics and General Foods and Nutrition. Hospitality and Restaurant Management is the best choice for those students who have an interest in management and who enjoy working with people.

#### Dietetics (DIET)

Dietetics is for the student who intends to become a registered dietitian (RD). Courses required include those necessary as prerequisites to a dietetic internship. An internship is required for eligibility to take the national registration examination and be eligible for licensure. Students who complete the program with a minimum grade-point average of 3.0 may apply for an internship. Upon licensure, students practice as registered dietitians in the health care field or as consulting dietitians in private practice, sports nutrition, or in wellness and health maintenance centers. Students with lower GPAs may apply for supervised practice programs leading to the dietetic technician registered (DTR) certification.

#### Dietetics Concentration Requirements

- **English/Communications** (12-15 hours)  
  - English University Core Courses (6 hours)  
  - COMM 1313 Fundamentals of Communication  
  - HESC 3013 Introduction to Fashion Merchandising  
  - University Core PSYC 2003 General Psychology  
  - History University Core Elective  
  - HESC 2023 Visual Merchandising and Fashion Promotions  

- **Mathematics University Core Course** (3 hours)  
  - MATH 1203 College Algebra or higher level math

- **Science University Core Courses and Departmental Requirements** (24-27 hours)  
  - CHEM 1103/1101L University Chemistry I and lab and CHEM 1123/1121L University Chemistry II and lab  
  - MATH 1203 College Algebra or higher level math  
  - ANSC 3032 Animal Physiology I and ANSC 3042 Animal Physiology II or BIOL 2213/2211L Human Physiology and lab and BIOL 2443/2441L Human Anatomy and lab  
  - CHEM 2613/2611L Organic Physiological Chemistry and lab  
  - CHEM 3813 Introduction to Biochemistry

- **Additional Requirements** (6 hours)  
  - Fine Arts/Humanities University Core Courses

---

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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</table>
| **Spring Semester Year 1** | 3 HESC 1013 Intro to Clothing Concepts  
1 HESC 1501 Orientation to HESC  
3 HESC 1053 Computer Based Methods for Apparel  |
| **Fall Semester Year 1** | 3 University Core ENGL 1023 Composition II  
3 MATH 2053 Finite Math or higher level math  
3 HESC 1213 Nutrition in Health  
3 Computer Course AGME 2903 Application of Microcomputers or other  |
| **Summer Semester Year 1** | 3 HESC 2013 Quality Assessment of Apparel  
3 HESC 1023 Introduction to Apparel Production  
3 HESC 2413 Family Relations  
3 HESC 2053 Textiles with lab component  |
| **Spring Semester Year 2** | 3 ENGL 2003 Advanced Composition or Exemption Elective  
3 HESC 3013 Design and Production Techniques  
3 Fine Arts/Humanities University Core Courses  |
| **Fall Semester Year 2** | 3 COMM 1313 Fundamentals of Communication  
3 University Core PSYC 2003 General Psychology  
3 History University Core Elective  
3 HESC 2023 Visual Merchandising and Fashion Promotions  |
| **Summer Semester Year 2** | 3 HESC 4003 Recent Advances in Apparel Manufacturing & Merchandising  |
| **Fall Semester Year 3** | 3 COMM 1313 Fundamentals of Communication  
3 University Core PSYC 2003 General Psychology  
3 History University Core Elective  
3 HESC 3003 Apparel Production  |
| **Summer Semester Year 3** | 2 HESC 4082 Apparel Studies Internship  |
| **Fall Semester Year 4** | 3 HESC 4023 Advanced Apparel Merchandising  
3 University Core PSYC 2003 General Psychology  
3 HESC 4063 Advanced Apparel Production  
6 General Electives  |
| **Spring Semester Year 4** | 3 HESC 4053 Contemporary Apparel  
3 HESC 4033 Advanced Textile Study  
6 General Electives  |

**Total hours:** 124
Select 6 hours from “State Minimum Arts/Humanities Core” (3 hours from section a and 3 hours from sections b, c, or d. See page 40.)

**US History University Core Course (3 hours)**

**Social Sciences University Core Courses (9 hours)**
- HESC 2413 Family Relations
- PSYC 2003 General Psychology
- Social Science University Core Elective (3 hours)

**DIET Major Requirements:**

**Human Environmental Sciences (50 hours)**
- HESC 1201 Introduction to Dietetics and Nutrition
- HESC 1501 Orientation to HESC
- HESC 1213 Nutrition in Health
- HESC 2112/2111L Foods I and lab
- HESC 2603 Food Service Purchasing
- HESC 3203 Nutrition for Health Professionals and Educators
- HESC 3213 Dietetic and Nutrition Practice: Tools & Applications
- HESC 3604 Food Preparation for the Hospitality Industry
- HESC 3653 Food Systems Management
- HESC 4103 Experimental Foods
- HESC 4213 Advanced Nutrition
- HESC 4223 Nutrition During the Life Cycle
- HESC 4243 Community Nutrition
- HESC 425V Food and Nutrition Seminar (1 hour)
- AGST 4023 Principles of Experimentation or Equivalent Elective
- HESC 4264 Medical Nutrition Therapy I with lab component
- HESC 4273 Medical Nutrition Therapy II
- HESC 4623 Selection and Layout of Food Service Equipment

**Physical Education (2 hours)**
- General Electives (9-15 hours)
  - HESC 2203 Nutrition for Exercise & Sport
  - KINS 3153 Exercise Physiology
  - PHIL 2103 Introduction to Ethics

124 Total Hours

**Food, Human Nutrition and Hospitality Eight-Semester Degree Program**

Students wishing to follow the degree plan in Food, Human Nutrition and Hospitality should see page 42 in the Academic Regulations section for university requirements of the program. The Food, Human Nutrition and Hospitality major has three concentrations: Dietetics, General Foods and Nutrition, and Hospitality and Restaurant Management.

**Dietetics Concentration**

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>4  CHEM 1103/1101L University Chemistry I and lab</td>
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<tr>
<td>3  MATH 1203 College Algebra or higher level math</td>
</tr>
<tr>
<td>1  HESC 1501 Orientation to HESC</td>
</tr>
<tr>
<td>1  HESC 1201 Introduction to Dietetics &amp; Nutrition</td>
</tr>
<tr>
<td>3  HESC 1213 Nutrition in Health</td>
</tr>
<tr>
<td>3  ENGL 1013 Composition I</td>
</tr>
<tr>
<td>1  PEAC or DEAC Elective</td>
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<td>16 Semester hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td>4  CHEM 1123/1121L University Chemistry II and lab</td>
</tr>
<tr>
<td>3  ENGL 1023 Composition II</td>
</tr>
</tbody>
</table>

**General Foods and Nutrition (GFNU)**

Students taking this concentration are encouraged to select an approved minor from the Bumpers, Walton, or Fulbright colleges or plan other combinations of courses to prepare for non-traditional vocations including work in community or government sponsored programs, wellness and health maintenance centers, public relations in the food industry, TV/media outlets for food and nutrition information, and international food or nutritional programs.

**General Foods & Nutrition Concentration Requirements:**

**English/Communications (12-15 hours)**
- English University Core courses (6 hours)
ENGL 2003 Advanced Composition or Exemption Elective
See page 41 for exemption information
COMM 1313 Fundamentals of Communication
Communication Intensive Elective – ENGL 3053 Technical and Report Writing or JOUR 3123 Feature Writing or
AGED 3142/3141L Agri Communications and lab
Mathematics University Core Course (3 hours)
MATH 1203 College Algebra or higher level math
Science University Core Courses and Departmental Requirements
(27 hours)
CHEM 1103/1101L University Chemistry I and lab and CHEM 1123/1121L University Chemistry II and lab or CHEM 1074/1071 Fundamentals of Chemistry and lab
CHEM 2613/2611L Organic Physiological Chemistry and lab
CHEM 3813 Introduction to Biochemistry
BIOI. 2013/2011L General Microbiology and lab
Select either: BIOI. 2213/2211L Human Physiology and lab and BIOI. 2443/2441L Human Anatomy and lab
or BIOI. 1543/1541L Principles of Biology and lab and ANSC 3032 Animal Physiology I and ANSC 3042 Animal Physiology II
Fine Arts/Humanities University Core Courses (6 hours)
Select in two categories from “State Minimum Arts/Humanities Core” (sections a, b, c, or d) – See page 40
US History University Core Course (3 hours)
Social Sciences University Core Courses (9 hours)
PSYC 2003 General Psychology
HESC 2413 Family Relations
Select a 3-hr social science elective from “State Minimum Core” (See page 40)
GFNU Major Requirements (40-42 hours)
HESC 1201 Introduction to Dietetics and Nutrition or HESC 1603 Introduction to Hospitality Management
HESC 1501 Orientation to HESC
HESC 1213 Nutrition in Health
HESC 2112/2111L Foods I and lab
HESC 2203 Food Service Purchasing
HESC 3203 Nutrition for Health Professionals and Educators
HESC 3213 Dietetic and Nutrition Practice: Tools and Applications
HESC 3604 Food Preparation for the Hospitality Industry
HESC 3653 Food Systems Management
HESC 4103 Experimental Foods
HESC 4213 Advanced Nutrition
HESC 4223 Nutrition During the Life Cycle
HESC 4243 Community Nutrition
HESC 425V Food and Nutrition Seminar (1 hour)
Physical Education (2 hours)
General Electives (17-25 hours)
124 Total Hours

General Foods and Nutrition Concentration

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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</tr>
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<tbody>
<tr>
<td>4</td>
<td>Science Core CHEM 1103/1101L Chemistry I and lab</td>
</tr>
<tr>
<td>3</td>
<td>Math Core MATH 1203 College Algebra OR higher level math</td>
</tr>
<tr>
<td>1</td>
<td>HESC 1501 Orientation to HESC</td>
</tr>
<tr>
<td>3</td>
<td>HESC 1213 Nutrition in Health</td>
</tr>
<tr>
<td>3</td>
<td>English Core ENGL 1013 Composition I</td>
</tr>
<tr>
<td>1</td>
<td>PEAC OR DEAC</td>
</tr>
<tr>
<td>15 Semester hours</td>
<td></td>
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</tbody>
</table>

Hospitality and Restaurant Management (HRMN)
Students in the hospitality and restaurant management concentration prepare themselves for managerial positions in the restaurant and hospitality industry. This dynamic curriculum provides students with skills in foods and business, as well as hospitality and restaurant management. Students have the opportunity to manage and operate a restaurant on campus. Students obtain hands-on experience by completing 1,000 hours of satisfactory, verifiable work experience in the hospitality and restaurant industry, usually completed
Hospitality and Restaurant Management Concentration Requirements:

English/Communications (12-15 hours)
- English University Core courses (6 hours)
- ENGL 2003 Advanced Comp or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication
- Communication Intensive Course - AGED 3142/3141L Agri Communications and lab

Mathematics University Core Course and Computers (3 hours)
- Mathematics University Core Course (3 hours)
- WCOB 1120 Computer Competency Requirement or Equivalent

Science University Core Courses and Departmental Requirements (8-9 hours)
- University Core CHEM 1103/1101L University Chemistry I and lab
- University Core CHEM 1123/1121L University Chemistry II and lab or
- BIOL 1543/1541L Principles of Biology and lab and CHEM 1074/1071L Fundamentals of Chemistry and lab

Fine Arts/Humanities University Core Courses (6 hours)
- Select in two categories from “State Minimum Arts/Humanities Core” (sections a, b, c, or d. See page 40.)

US History University Core Course (3 hours)
- PSYC 2003 General Psychology
- HESC 2413 Family Relations
- ECON 2143 Basic Economics

HRMN Major Requirements (17 hours)
- HESC 1501 Orientation to HESC
- HESC 1213 Nutrition in Health
- HESC 2112/2111L Foods I and lab
- HESC 3604 Food Preparation for the Hospitality Industry
- HESC 3653 Food Systems Management
- HESC 4103 Experimental Foods

Additional Requirements (49-55 hours)
- HESC 1601 Work Experience Practicum (1-4 hours)
- HESC 1603 Introduction to Hospitality and Restaurant Management
- HESC 2123 Catering Management with lab component
- HESC 2603 Food Service Purchasing
- HESC 2633 Introduction to Hotel Operations
- HESC 2643 Principles of Tourism
- HESC 3613 Resort Management
- HESC 3623 Legal Issues in Hospitality Industry with lab component or
- RECR 3873 Sport and Recreation Risk Management
- HESC 3633 Front Office Management
- HESC 4623 Selection and Layout of Food Service Equipment
- HESC 4633 Advanced Hotel Operations
- HESC 4643 Meetings, Events and Convention Management
- HESC 4653 Global Travel and Tourism Management
- HESC 4693 Hospitality Management Internship (3-6 hours)
- FDSC 2503 Food Safety/Sanitation
- AGEC 2143 Ag Financial Records or Equivalent
- AGEC 3303 Food & AG Marketing or Equivalent

Physical Education (2 hours)
- General Electives (5-15 hours) – Recommend foreign language (6 hours in the same language), HLSC 3633 First Responder-First Aid

124 Total Hours

Hospitality and Restaurant Management Concentration

### Fall Semester Year 1

1. English Core ENGL 1013 Composition
2. Math Core MATH 1203 College Algebra or higher level math
3. HESC 1213 Nutrition in Health
4. Science Core \*CHEM 1074/1071L Fundamentals of Chemistry and lab
5. HESC 1603 Intro Hospitality Management
6. Semester hours

### Spring Semester Year 1

1. English Core ENGL 1023 Composition II
2. Science Core \*BIOL 1543/1541L Principles of Biology and lab
3. Fine Arts/Humanities Core Elective
4. COMM 1313 Fundamentals of Communication
5. PEAC OR DEAC Elective
6. HESC 1601 Work Experience Practicum **
7. HESC 1501 Orientation to HESC
8. Semester hours

### Fall Semester Year 2

1. HESC 2112/2111L Foods I and lab
2. PEAC Elective
3. WCOB 1120 Computer Competency Requirement
4. Social Sciences Core PSYC 2003 General Psychology
5. FDSN 2503 Food Safety and Sanitation
6. HESC 2633 Hotel Operations
7. HESC 2643 Principles of Tourism
8. Semester hours

### Spring Semester Year 2

1. HESC 3623 Legal Issues in the Hospitality Industry
2. HESC 2123 Catering Management with lab component
3. History Core Elective
4. ENGL 2003 Adv. Composition OR Exemption Elective
5. General Elective
6. Semester hours

### Fall Semester Year 3

1. HESC 2603 Food Service Purchasing
2. HESC 3653 Food Systems Management
3. AGEC 2143 Ag Financial Records or equivalent
4. AGED 3142/3141L Agriculture Communications and lab
5. Social Sciences Core ECON 2143 Basic Economics – Theory & Practice
6. Semester hours

### Spring Semester Year 3

1. HESC 2604 Food Preparation for the Hospitality Industry with lab component
2. HESC 3633 Front Office Management
3. HESC 1601 Work Experience Practicum **
4. HESC 3613 Resort Management
5. General Elective
6. Semester hours

### Summer Semester Year 3

1. HESC 4643 Meeting, Events and Convention Management
2. AGEC 3303 Food & Ag Marketing
3. HESC 4653 Global Travel & Tourism Management
4. Social Science Core HESC 2413 Family Relations
5. Fine Arts/Humanities Core Elective
6. Semester hours
### Fall Semester Year 4
- 3 HESC 4103 Experimental Foods with lab component
- 3 HESC 4623 Select & Layout of Food Service Equipment
- 3 HESC 4633 Adv. Hotel Operations
- 1 HESC 1601 Work Experience Practicum **
- 3 General Elective
- 13 Semester hours

### Spring Semester Year 4
- 3 HESC 4693 Hospitality Management Internship
- 124 Total Hours

* May take CHEM 1103/1101L AND CHEM 1123/1121L
** HESC 1601 must be repeated until 1000 hours of work experience are completed.

### Minor in General Foods and Nutrition (GFNU-M)
18 hrs to include the following:
- HESC 1213 Nutrition in Health
- HESC 2112/2111L Foods I and lab
- HESC 3203 Nutrition for Health Professionals and Educators
- HESC 4213 Advanced Nutrition
- Select 6 hours from:
  - HESC 2203 Nutrition for Exercise and Sport
  - HESC 4223 Nutrition During the Life Cycle
  - HESC 4243 Community Nutrition
- HESC 425V (may be repeated once for 2 hours total credit)

### GENERAL HUMAN ENVIRONMENTAL SCIENCES (GHES)

Mary M. Warnock  
Director  
118 Home Economics Building  
479-575-4305

The general human environmental sciences curriculum serves students seeking a background in all of the subject-matter areas of human environmental sciences. The general curriculum prepares students for careers in social services, business, and the Cooperative Extension Service. Liberal elective hours allow students to select courses and programs to meet individual needs.

Students may be certified by the Arkansas State Board of Education to teach family and consumer sciences in Arkansas public schools by combining the pre-professional education courses as electives and completing the Master of Arts in teaching (M.A.T.) degree requirements. (See M.A.T., page 239). At the beginning of the sophomore year, students should consult with their advisors to schedule the general education and pre-professional education courses.

### Requirements for a Major in General Human Environmental Sciences
(See page 40 for University Core and page 71 for B.S.H.E.S. requirements)

#### English/Communications (12 hours)
- English University Core Courses
- ENGL 2003 Advanced Comp or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication

#### Mathematics University Core Course and Computers (6 hours)
- MATH 1203 College Algebra or higher level math
- ETEC 2001/2002L Educational Technology and lab or Equivalent

#### Science University Core Courses and Departmental Requirements (13 hours)
- CHEM 1074/1071L Fundamentals of Chemistry and lab
- CHEM 2613/2611L Organic Chemistry and lab
- BIOL 1543/1541L Principles of Biology and lab

#### Fine Arts/Humanities University Core Courses (6 hours)
- ARTS 1003 Basic Arts
- Select in one category from “State Minimum Arts/Humanities Core” (sections b, c, or d) – See page 40

#### US History University Core Course (3 hours)
- PSYC 2003 General Psychology

#### Social Sciences University Core Courses (9 hours)
- Select 6 hours University Core Courses from other listed fields of study

#### GHES Major Requirements (43 hours)
- HESC 1013 Introduction to Clothing Concepts
- HESC 1023 Introduction to Apparel Production
- HESC 1213 Nutrition in Health or HESC 3203 Nutrition for Health Professionals and Educators
- HESC 1403 Life Span Development
- HESC 1501 Orientation to HESC
- HESC 2053 Introduction to Textile Science with lab component
- HESC 2112/2111L Foods I and lab
- HESC 2123 Catering Management
- HESC 2413 Family Relations
- HESC 2433 Child Development
- HESC 3402/3401L Child Guidance and lab
- HESC 4753 Family Financial Management
- HESC 3763L Family Resource Management Lab
- HESC 4813 Human Factors in ID
- HESC 4453 Parenting and Family Dynamics

#### Physical Education (3 hours)
- PEAC 1621 Fitness Concepts
- HLSC 1002 Wellness Concepts

#### General Electives (29 hours)

124 Total Hours

### General Human Environmental Sciences Eight-Semester Degree Program
Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 HESC 1403 Lifespan Development</td>
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<tr>
<td>1 HESC 1501 Orientation to HESC</td>
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<td>3 ENGL 1013 Composition I</td>
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<td>3 MATH 1203 College Algebra or higher level math</td>
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<tr>
<td>3 ETEC 2001/2002L Educational Technology and lab or Equivalent</td>
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<td>16 Semester hours</td>
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<tbody>
<tr>
<td>3 HESC 1013 Introduction to Clothing Concepts</td>
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<tr>
<td>3 HESC 2413 Family Relations</td>
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<tr>
<td>3 PSYC 2003 General Psychology</td>
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<td>3 ENGL 1023 Composition II</td>
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<tr>
<td>2 General Elective</td>
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<tr>
<td>1 PEAC 1621 Fitness Concepts</td>
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<td>15 Semester hours</td>
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<th>Fall Semester Year 2</th>
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<tbody>
<tr>
<td>3 HESC 1023 Introduction to Apparel Production</td>
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<td>3 HESC 2433 Child Development</td>
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<td>3 COMM 1313 Fundamentals of Communication</td>
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<tr>
<td>3 HLSC 1002 Wellness Concepts</td>
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<tr>
<td>5 CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
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<td>16 Semester hours</td>
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</tbody>
</table>
HUMAN DEVELOPMENT, FAMILY SCIENCES, AND RURAL SOCIOLOGY (HDFSRS)

Sue S. Martin
Area Coordinator
104 Home Economics Building
479-575-4578

Students majoring in human development and family sciences prepare for one of the fastest growing employment opportunities in the country. The human services area includes jobs that serve people from conception through the last stages of life. Students develop skills for working with individuals and families in governmental, private, and nonprofit organizations. Three concentrations are offered:

Child Development (CDEV)

This concentration is for students who desire in-depth knowledge of children and programs for children from birth to age 12. The focus on children covers issues from the prenatal to early adolescence. Graduates may work as preschool teachers, day-care directors, specialists in the field of child life, and as child advocates.

Birth through Kindergarten (BRKD)

The knowledge and skills developed in this program will prepare students to work with children from birth through five years of age in various settings.

Lifespan (LSPN)

This area of study covers the care issues faced by families and individuals in contemporary society. The knowledge and skills developed in this program will prepare the student to work in areas such as aging, parent education, financial and consumer counseling, youth services, and other human service type careers.

Requirements for a Major in Human Development, Family Sciences and Rural Sociology (See page 40 for University Core and page 71 for B.S.H.E.S. requirements)

- English/Communications (12 hours)
  English University Core Courses (6 hours)
  ENGL 2003 Advanced Comp or Exemption Elective – See page 41 for exemption information
  COMM 1313 Fundamentals of Communication

- Mathematics University Core Course (3 hours)
  MATH 1203 College Algebra or higher level math

- Science University Core Courses (8 hours)
  Fine Arts/Humanities University Core Courses (6 hours)
  Select in two categories from “State Minimum Arts/Humanities Core” (one course from section a and one course from b, c, or d. See page 40.)
  US History University Core Course (3 hours)
  Social Sciences University Core Courses (9 hours)
  PSYC 2003 General Psychology
  SOCI 2013 General Sociology or RSOC 2603 Rural Sociology
  HESC 2413 Family Relations

Additional Requirements for Child Development Concentration (53 hours)

- HESC 1213 Nutrition in Health
- HESC 1501 Orientation to HESC
- HESC 1503 Nutrition for Health Professionals and Educators
- HESC 2443 Adolescent Development
- HESC 4423 Adult Development
- HESC 4463 Administration and Evaluation of Child Development
- HESC 4472 / 4472L Child Development Practicum and lab
- HESC 4453 Parenting and Family Dynamics
- HESC 4493 Public Policy Advocacy for Children and Families
- SCWK 3633 Problems of Child Welfare
- CIED 3023 Survey of Exceptionalities
- CIED 3103 Children’s Literature
- CIED 3113 Emergent and Developmental Literacy
  Select 6 hours from
  HESC 1403 Lifespan Development
  HESC 2443 The Hospitalized Child
  HESC 2443 Families in Crisis
  HESC 3763L Family Resource Management Lab
  HESC 4433 Dynamic Family Interaction
  HESC 4443 Gerontology
  HESC 4483 Internship in HDFS
  RSOC 2603 Rural Sociology
  RSOC 4603 Environmental Sociology
  RSOC 4623 Introduction to Community Development
  General Electives (30 hours)

124 Total Hours
Additional requirements for Birth through Kindergarten Concentration (58 hours)

- HESC 1213 Nutrition in Health
- HESC 1411L Observation of Children
- HESC 1501 Orientation to HESC
- HESC 2402/2401L Infant & Toddler Development and lab
- HESC 2433 Child Development
- HESC 3402/3401L Child Guidance and lab
- HESC 3423 Adolescent Development
- HESC 4313 Building Family & Community Relationships
- HESC 4332/4332L Curriculum & Assessment Birth to Three Yrs and lab
- HESC 4342/4342L Curriculum & Assessment Three Yrs-Kindergarten and lab
- HESC 4373 Field Experience in Birth-Kindergarten Programs
- HESC 4423 Adult Development
- HESC 4453 Parenting and Family Dynamics
- HESC 4463 Administration & Evaluation of Child Development Programs
- HESC 4753 Family Financial Management
- HIST 3383 Arkansas & the Southwest
- SCWK 3633 Problems of Child Welfare
- CIED 3023 Survey of Exceptionalities
- CIED 3103 Children's Literature
- CIED 3113 Emergent and Developmental Literacy

General Electives (25 hours)

124 Total Hours

Additional requirements for Lifespan Concentration (49 hours)

- HESC 1213 Nutrition in Health
- HESC 1403 Lifespan Development
- HESC 1501 Orientation to HESC
- HESC 2433 Child Development
- HESC 3423 Adolescent Development
- HESC 3443 Families in Crisis
- HESC 4423 Adult Development
- HESC 4433 Dynamic Family Interaction
- HESC 4443 Gerontology
- HESC 4453 Parenting and Family Dynamics
- HESC 4463 Administration & Evaluation of Child Development Programs
- HESC 4493 Public Policy Advocacy
- HIST 3383 Arkansas & the Southwest
- SCWK 3633 Problems of Child Welfare
- CIED 3023 Survey of Exceptionalities
- CIED 3103 Children's Literature
- CIED 3113 Emergent and Developmental Literacy

General Electives (28 hours)

124 Total Hours

Human Development, Family Sciences, and Rural Sociology Eight-Semester Degree Program with Child Development Concentration

Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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<tr>
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<td>3 MATH Core elective</td>
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<tbody>
<tr>
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<td>3 HESC 2413 Family Relations</td>
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<td>3 ENGL 1023 Composition II</td>
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<tbody>
<tr>
<td>3 HESC 1213 Nutrition in Health</td>
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<td>3 HESC 2402/2401L Infant &amp; Toddler Development and lab</td>
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<tr>
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<td>3 CIED 3113 Emergent &amp; Developmental Literacy</td>
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<td>3 SCWK 3633 Problems of Child Welfare</td>
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<tr>
<td>3 HESC 3402/3401L Child Guidance and lab</td>
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<td>3 CDEV Elective</td>
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<tr>
<td>3 HESC 3423 Adolescent Development</td>
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<td>4 HESC 4472/4472L Child Development Practicum and lab</td>
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<td>3 CIED 3023 Survey of Exceptionalities</td>
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<td>3 HESC 4423 Adult Development</td>
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<td>3 HESC 4463 Administration &amp; Evaluation of Child Development Programs</td>
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<tr>
<td>3 HESC 2433 Child Development</td>
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<td>3 ENGL 2003 Advanced Composition or Exemption Elective</td>
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<td>3 SOCI 2013 General Sociology or RSOC 2603 Rural Sociology</td>
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<td>3 CIED 3113 Emergent &amp; Developmental Literacy</td>
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<td>3 SCWK 3633 Problems of Child Welfare</td>
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<tr>
<td>3 HESC 3402/3401L Child Guidance and lab</td>
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<tr>
<td>3 CDEV Elective</td>
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<td>124 Total Hours</td>
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Statistics and Research Methods (6 hours)

| General Electives (28 hours) |  |

124 Total Hours
Human Development, Family Sciences, and Rural Sociology Eight-Semester Degree Program with Birth through Kindergarten Concentration

Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>3 ENGL 1013 Composition I</th>
<th>1 HESC 1501 Orientation to HESC</th>
<th>3 COMM 1513 Fundamentals of Communications</th>
<th>3 MATH Core Elective</th>
<th>3 Fine Arts Core Elective</th>
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<tbody>
<tr>
<td>Spring Semester Year 1</td>
<td>3 HESC 2413 Family Relations</td>
<td>3 PSYC 2003 General Psychology</td>
<td>3 ENGL 1023 Composition II</td>
<td>4 PSY 2003 General Psychology</td>
<td>3 General Elective</td>
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<tr>
<td>Fall Semester Year 2</td>
<td>3 HESC 1213 Nutrition in Health</td>
<td>3 HESC 2402/2401L Infant &amp; Toddler Development and lab</td>
<td>4 Science Core Elective</td>
<td>3 SOCI 2013 General Sociology or RSOC 2603 Rural Sociology</td>
<td>3 General Electives</td>
<td>16 Semester hours</td>
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<td>Spring Semester Year 2</td>
<td>3 HESC 2433 Child Development</td>
<td>1 HESC 1411L Observation of Children</td>
<td>3 ENGL 2003 Advanced Composition or Exemption Elective</td>
<td>3 History Core Elective</td>
<td>3 General Electives</td>
<td>16 Semester hours</td>
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</tr>
<tr>
<td>Fall Semester Year 3</td>
<td>3 HESC 3402/3401L Child Guidance and lab</td>
<td>3 CIED 3103 Children’s Literature</td>
<td>3 CIED 3113 Emergent &amp; Developmental Literacy</td>
<td>3 SCWK 3633 Problems of Child Welfare</td>
<td>3 General Elective</td>
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<td>Spring Semester Year 3</td>
<td>3 HESC 3423 Adolescent Development</td>
<td>4 HESC 4332/4332L Curriculum &amp; Assessment Birth to Three Year and lab</td>
<td>3 HESC 4453 Parenting and Family Dynamics</td>
<td>3 CIED 3023 Survey of Exceptionalities</td>
<td>3 General Elective</td>
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<td>3 HESC 4753 Family Financial Management</td>
<td>3 HESC 4423 Adult Development</td>
<td>3 HESC 4463 Administration &amp; Evaluation of Child Development Programs</td>
<td>4 HESC 4342/4342L Curriculum and Assessment Three to Kindergarten and Lab</td>
<td>3 General Elective</td>
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<td>Spring Semester Year 4</td>
<td>3 HESC 4313 Building Family &amp; Community Relationships</td>
<td>3 HESC 4373 Field Experience in Birth to Kindergarten Setting</td>
<td>3 HIST 3383 Arkansas and the Southwest</td>
<td>3 Humanities Core Elective</td>
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<td>15 Semester hours</td>
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124 Total Hours

Human Development, Family Sciences, and Rural Sociology Eight-Semester Degree Program with Life Span Concentration

Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>3 ENGL 1013 Composition I</th>
<th>1 HESC 1501 Orientation to HESC</th>
<th>3 MATH Core Elective</th>
<th>3 HESC 1403 Lifespan Development</th>
<th>3 Fine Arts Core Elective</th>
<th>3 General Elective</th>
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<tbody>
<tr>
<td>Spring Semester Year 1</td>
<td>3 PSYC 2003 General Psychology</td>
<td>4 Science Core Elective</td>
<td>3 HESC 2413 Family Relations</td>
<td>3 ENGL 1023 Composition II</td>
<td>3 General Elective</td>
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<tr>
<td>Fall Semester Year 2</td>
<td>3 HESC 1213 Nutrition in Health</td>
<td>3 History Core Elective</td>
<td>4 Science Core Elective</td>
<td>3 SOCI 2013 General Sociology or RSOC 2603 Rural Sociology</td>
<td>3 General Electives</td>
<td>16 Semester hours</td>
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<tr>
<td>Spring Semester Year 2</td>
<td>3 HESC 2433 Child Development</td>
<td>3 HESC 3423 Adolescent Development</td>
<td>3 SCWK 3633 Problems of Child Welfare</td>
<td>3 General Elective</td>
<td>15 Semester hours</td>
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<td>Fall Semester Year 3</td>
<td>3 HESC 4443 Families in Crisis</td>
<td>3-4 Statistics Elective. Select from PSYC 2013 Introduction to Statistics or STAT 2303 Principles of Statistics or SOCI 3303/3301L Social Data and Analysis and lab or WCOB 1033 Data Analysis and Interpretation</td>
<td>3 ENGL 2003 Advanced Composition or Exemption Elective</td>
<td>3 LSPN Elective</td>
<td>3-4 General Elective</td>
<td>15-16 Semester hours</td>
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<td>Spring Semester Year 3</td>
<td>3 SCWK 3163 On Death and Dying</td>
<td>3 Research Methods Elective: Select from PSYC 3073 Research Methods or SOCI 3313 or SCWK 4073</td>
<td>3 LSPN Elective</td>
<td>3 General Electives</td>
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<tr>
<td>Fall Semester Year 4</td>
<td>3 HESC 4493 Public Policy Advocacy</td>
<td>3 HESC 4753 Family Financial Management</td>
<td>3 HESC 4453 Parenting and Family Dynamics</td>
<td>3 HESC 4423 Adult Development</td>
<td>3 HESC 4463 Administration &amp; Evaluation of Child Development Programs</td>
<td>15 Semester hours</td>
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<tr>
<td>Spring Semester Year 4</td>
<td>3 HESC 4433 Dynamic Family Interaction</td>
<td>3 HESC 4443 Gerontology</td>
<td>3 CNED 3053 The Helping Relationship</td>
<td>3-4 General Elective</td>
<td>15 Semester hours</td>
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</table>

124 Total Hours
Minor in Human Development and Family Sciences (HDFS-M)
18 hours to include the following:
HESC 1403 and HESC 2413
Select 12 hours from the following:
HESC 2402/2401L, HESC 2433, HESC 2443, HESC 3402/3401L, HESC 3423, HESC 3443, HESC 3763L, HESC 4423, HESC 4443, HESC 4453, HESC 4463, HESC 4493, HESC 4753, RSOC 2603, RSOC 4603, RSOC 4623

INTERIOR DESIGN (IDES)
G. Marie Gentry
Area Coordinator
17B Home Economics Building
479-575-2578

Interior design, a CIDA-accredited program, combines an excellent foundation of professional courses that are enhanced by classes in human environmental sciences, art, architecture, and business. A goal of the program is to foster a sense of personal and professional responsibility and service through design. Students are actively involved in design competitions and domestic and international travel. Both overnight and day field trips are required for studio courses. Elective-credit study tour opportunities are offered on a regular basis, and students are encouraged to participate. Graduates are placed in contract, residential, and institutional interior design firms, architectural firms, historic preservation, lighting design, and contract and residential sales.

Transfer students seeking advanced placement must submit a portfolio for faculty review prior to beginning any studio course. Review of the portfolio will allow appropriate placement based on demonstrated skills and earned college credit. Students may be required to wait for the appropriate studio sequence. Transfer students placed into the program prior to sophomore portfolio review will be required to participate in the sophomore portfolio review process.

A sophomore portfolio review is an important component of the academic program. The review of studio work occurs in December of the sophomore year. The submitted materials will follow guidelines prepared by the interior design faculty and will include examples of work from Studios 1, 2, and 3. All full-time interior design faculty members review portfolios. Students will receive a pass or probation. If the portfolio is acceptable (pass), the student may continue, without remediation or additional required work, to junior-level studios. If the portfolio is not acceptable (probation), the student must comply with faculty recommendations that may include repeating a course(s), taking supplemental courses to strengthen a weakness, or submission of reworked studio projects. Students on probation must resubmit a portfolio at the end of the spring semester following the initial review. In the event that skills are not improved, the student will not be permitted to progress into upper-level studios.

The studio sequence increases in complexity throughout the curriculum. The rigor of the program requires a significant commitment of time and energy. Students can expect to spend a minimum of 3 hours out of class for each hour of studio time to complete projects. Participation in the supervised internship experience is required for graduation. The faculty reserves the right to retain student work for accreditation and recruitment purposes.

A professional advisory board supports the program and serves as external critics/jurors. Faculty and students participate in professional design association activities. The faculty is composed of well-qualified educators and practitioners who foster an attitude of inquiry and learning based on their individual skills and interests. Intellectual development of students is stimulated and leadership qualities enhanced throughout the four-year curriculum. The Interior Design Organization (IDO) allows for interaction of students with professionals in interior design and allied professions.

In response to industry demands, the program requires laptop computers. Students must acquire a laptop for use in studio courses that are taught in the spring semester of the second year of the program. Specifications for laptops must be obtained from interior design faculty prior to purchase by the student.

Requirements for a Bachelor of Interior Design (B.I.D.) Degree (See page 40 for University Core and page 71 for college requirements)

English/Communications (12 hours)
English University Core Courses (6 hours)
ENGL 2003 Advanced Comp or Exemption Elective – See page 41 for exemption information
COMM 1313 Fundamentals of Communication
Mathematics University Core Course (3 hours)
Science University Core Courses (8 hours)

Fine Arts/Humanities University Core Courses (6 hours)
Select in two categories from “State Minimum Arts/Humanities Core” (one course from section a, and one course from b, c, or d) – See page 40

US History University Core Course (3 hours)

Social Sciences University Core Courses (9 hours)

6 hours from PSYC 2003 General Psychology, SOCI 2013 General Sociology, ANTH 1023 Cultural Anthropology
Select 3 hours of economics course: ECON 2013, ECON 2023, ECON 2143 or AGEC 1103

Interior Design Major Requirements
Art/Architecture (6 hours)

ARCH 4433 History of Architecture III
Art Elective: ARTS 1013 Drawing Fundamentals I, ARTS 1313 Two-Dimensional Design, ARTS 1323 Three-Dimensional Design, ARTS 2013 Figure Drawing I, ARTS 2313 Computer Applications in Art, ARTS 3203 Sculpture I, ARTS 3333 Color Studies, ARTS 3363 Graphic Design I, ARHS 2913 Art History Survey I, ARHS 2923 Art History Survey II

HESC Core (4 hours)
HESC 1501 Orientation to HESC
HESC 2413 Family Relations

Interior Design Core (58 hours)
HESC 1031 About the Profession
HESC 1034 Studio 1: Design Exploration 1
HESC 1044 Studio 2: Design Exploration 2
HESC 2805 Studio 3: Basic Space Planning & Communication
HESC 2815 Studio 4: Design Programming
HESC 2823 ID Materials & Resources
HESC 2853 Textiles for Interior Designers
HESC 2883 History of Interiors
HESC 3805 Studio 5: Design and Construction
HESC 3815 Studio 6: Large Scale Commercial
HESC 3843 Building Systems
HESC 4805 Studio 7: Comprehensive Design Process I
HESC 4813 Human Factors in ID
HESC 4815 Studio 8: Comprehensive Design Process II
HESC 4823 Professional Practice
HESC 4811 Internship for ID

Business Administration (6 hours)
Select 6 hours from FINN 3003 Personal Financial Management, FINN 3933 Real Estate Principles, FINN 4413 Real Estate Investment and...
Appraisal, FINN 4433 Real Estate Finance, MKTG 3433 Principles of Marketing,

Non-Credit Requirement
WCOB 1120 Computer Competency

General Electives (9 hours)
Recommended:
HESC 485V Study Tour (1 credit)
HESC 3841 Portfolio Workshop (1)
HESC 455V Special Topics – See adviser

124 Total Hours

Interior Design Nine-Semester Degree Program
Students wishing to follow the degree plan should see page 42 in the Academic Regulations section for university requirements of the program.

| Fall Semester Year 1 | 5 | HESC 1031 Intro to the Profession |
| 4 | HESC 1034 Studio 1 |
| 1 | HESC 1501 Orientation to HESC |
| 3 | HESC 2883 History of Interiors |
| 3 | ENGL 1013 Composition I |
| 3 | MATH 1203 College Algebra or higher level math |
| 0 | WCOB 1120 Computer Competency Requirement |
| 15 | Semester hours |

| Spring Semester Year 1 | 4 | HESC 1044 Studio 2 |
| 3 | HESC 2853 Textiles for Interior Design |
| 3 | Social Science Elective |
| 3 | ENGL 1023 Composition II |
| 3 | COMM 1313 Fundamentals of Communications |
| 16 | Semester hours |

| Fall Semester Year 2 | 5 | HESC 2805 Studio 3 |
| 3 | HESC 2823 ID Materials & Resources |
| 3 | Social Science Elective |
| 3 | Social Science Economics Core Elective |
| 14 | Semester hours |

| Spring Semester Year 2 | 5 | HESC 2815 Studio 4 |
| 3 | HESC 3843 Building Systems |
| 3 | HESC 2413 Family Relations |
| 3 | Fine Arts/Humanities Core Elective |
| 3 | General Elective |
| 17 | Semester hours |

| Fall Semester Year 3 | 5 | HESC 3805 Studio 5 |
| 4 | Science Core Elective |
| 3 | Business Elective |
| 3 | General Elective |
| 15 | Semester hours |

| Spring Semester Year 3 | 5 | HESC 3815 Studio 6 |
| 3 | HESC 4813 Human Factors in ID |
| 3 | HESC 4823 Professional Practice |
| 3 | ENGL 2003 Advanced Composition or Exemption Elective |
| 3 | Fine Arts/Humanities Core Elective |
| 17 | Semester hours |

| Summer Semester Year 3 | 1 | HESC 4811 Internship for Interior Design |

Minor in Interior Design (IDES-M)
All students seeking an Interior Design minor are required to complete the following courses or their equivalents:
HESC 1034 Studio I Design Exploration I
HESC 1044 Studio II Design Exploration II
HESC 2805 Studio III Basic Space Planning and Communication

In addition, students must select 15 hours from the following courses:
HESC 2853 Textiles for Interior Designers
HESC 2823 Interior Design Materials and Resources
HESC 2883 History of Interior Design
HESC 3843 Building Systems
HESC 4813 Human Factors in Interior Design
HESC 4823 Professional Practice for Interior Design

SEE PAGE 354 FOR HUMAN ENVIRONMENTAL SCIENCES (HESC) COURSES.
MISSION AND OBJECTIVES

The School of Architecture at the University of Arkansas houses professional design programs of architecture and landscape architecture together with liberal studies programs in each discipline. The School’s programs in architecture and landscape architecture include traditional five-year professional degree programs and four-year pre-professional degrees, combining studio design education with innovative teaching in history, theory, technology and urbanism. A broad range of course offerings equips graduates with the knowledge required for the challenges of a changing world. Design instruction occurs in a carefully planned studio sequence, providing educational experiences appropriate for students who wish to pursue both traditional and non-traditional forms of professional practice. Fundamental principles and techniques of critical analysis are stressed, and the curriculum strives to empower students by developing skill, knowledge, and a deep sense of responsibility to the environment and to the cultures they will serve. Design studio projects survey issues and opportunities in built and natural settings, as well as complex social, physical, and cultural relations that constitute the human-made environment.

FACILITIES AND RESOURCES

The School’s administrative offices and department of architecture are located in Vol Walker Hall, formerly the University’s library building, which has been extensively remodeled to meet the needs of the department and school. The landscape architecture department is located in Memorial Hall, formerly the university’s student union.

The University’s location in Northwest Arkansas, an area experiencing rapid growth and change, affords unusual opportunity to study the impact of urbanization in a rural setting. The school includes as part of its programs field trips, guest lectures, research assignments, and other teaching techniques oriented toward major urban and rural problems as means to broaden the educational base of its students.

Classes also are offered in a variety of settings away from the campus. Options include a semester in the Rome Study Center for Architecture and the Humanities near the Piazza Navona in Rome, Italy; the Mexico Summer Urban Studio in Mexico City; and Summer European Studies in Italy, France and England.

University of Arkansas Community Design Center (UACDC)

Since 1995 the University of Arkansas Community Design Center (UACDC) has provided award-winning, innovative planning to communities and organizations throughout Arkansas. Using teams of students and professional staff, UACDC prepares multifaceted design solutions that promote economic development, enhanced ecologies and improved public health. The center’s work addresses new challenges in affordable housing, urban sprawl, environmental planning and management of regional growth or decline. UACDC services have been enhanced by collaborations with the Department of Landscape Architecture, the Department of Biological and Agricultural Engineering, the Center for Business and Economic Research in the Sam Walton College of Business, the Arkansas Forestry Commission, Audubon Arkansas and Wal-Mart Stores Inc.

Design Studio

The design studio sequence is the core of each discipline within the School of Architecture. Studio exercises are complemented by topical lectures informing the process. Knowledge from those lectures is expected to inform work produced in design studios. This method is intended to develop and nurture the intellectual and creative skills of students and to allow them to approach problem solving in a disciplined, logical, and analytical manner.

Design professionals must be able to conceptualize responses to project programs, to communicate with clients, to present ideas verbally, and to demonstrate ideas graphically. They also need to maintain technical knowledge of building or ecology and construction technology, must be able to negotiate with contractors and owners to administrate construction, and should be prepared to market their services. In other words, each designer fulfills a multitude of roles, whether practicing alone or as a team member in a large multidisciplined organization.

The design studio consists of a series of projects of increasing complexity, all requiring three-dimensional problem solving, conceptualization, and final presentation to the studio critic, other faculty members, and fellow students. The amount of material to be covered, the fast pace of assignments, and the presentation of work for faculty and other students combine to produce a highly charged studio atmosphere.
Library Resources
The School of Architecture is served by the Fine Arts Library, a branch of the University Libraries. The collections in the Fine Arts Library include traditional print resources on the visual arts (painting, drawing, sculpture, ceramics, printmaking, and photography), architecture, and landscape architecture. Types of materials include books, exhibition catalogs, reference books, and periodicals. Electronic resources supporting the art, architecture, and landscape architecture programs include Art Index, Avery Index, Bibliography of the History of Art, and Grove Dictionary of Art among others. The Fine Arts Library also maintains course reserves for faculty wishing to place materials on reserve for their classes.

The C. Murray Smart Media Center, located in Vol Walker Hall, contains an online digital image database with more than 35,000 images relating to architecture, architectural history, landscape and urban design. This resource, along with a collection of more than 80,000 slides and 900 video programs, is available to faculty and students of the School of Architecture. The center also provides assistance to students with digital imaging technology, including the use of scanners and digital cameras.

Materials Shop
The School of Architecture has a fully functional and fully staffed wood shop, a computerized router and laser cutters for model and detail production.

Garvan Woodland Gardens
Located on Lake Hamilton in Hot Springs, Arkansas, Garvan Woodland Gardens is an integral unit of the School of Architecture. The land and endowment were the result of a bequest to the department of landscape architecture in 1985. This 210-acre woodland habitat features a variety of garden settings and unique architectural structures designed and developed by world-renowned specialists in botanical gardens, landscape architecture and architecture. An internship program offers opportunities for summer study and employment.

DEGREES OFFERED
The School of Architecture offers five-year professional programs in architecture and landscape architecture. Each program culminates in a professional degree, the Bachelor of Architecture (B.Arch.) or Bachelor of Landscape Architecture (B.L.A.).

The Bachelor of Architecture prepares students who aspire to registration and licensure to practice architecture. Architects do more than design and plan buildings. The architect's unique talents create environments that serve the psychological, economic, and spiritual needs of their clients and communities. Architects help cities and small communities to become safe, healthy, and wholesome places to live. Perhaps most important, architects create, preserve, and inspire beauty in the built environment.

The Bachelor of Landscape Architecture is an accredited five-year first professional degree that prepares students to practice landscape architecture as a licensed professional. The discipline of landscape architecture balances human requirements with landscape concerns. Landscape architects design, plan, and manage the land through understanding the interrelationships among the spirit of place, local ecology, individuals, and communities. They create outdoor spaces and rebuild ecological systems that meet societal needs, protect or enhance the natural environment, and respond to cultural conditions. Design and planning projects span the breadth of the profession to include urban design and town planning, public parks, land conservation, storm water management systems, ecological rehabilitation, historic landscape preservation, private gardens, housing developments, institutional and business campuses, and golf courses.

The School also offers two four-year programs, culminating in non-accredited degrees: the Bachelor of Science in Architectural Studies and the Bachelor of Science in Landscape Architectural Studies. These degrees serve students who, although interested in the design disciplines, do not aspire to professional practice. The four-year programs are particularly well suited for students who seek careers in allied disciplines, including historic preservation, environmental law, and history of architecture, as well as for students looking forward to graduate education in architecture, landscape architecture and the allied disciplines.

Minors
Students in architecture and landscape architecture may pursue an academic minor in approved degree programs of other colleges on campus, providing they meet the specific requirements for that minor.

SCHOOL ADMISSION REQUIREMENTS

University of Arkansas Department of Architecture Admissions
The University of Arkansas Department of Architecture maintains three distinct tracks of study for entering freshmen to accommodate all students interested in pursuing a degree in architecture. The three tracks of study are designed to foster learning and to build strong foundations for students entering the program with different skill levels and high school backgrounds. Students accepted to the University of Arkansas with the intention to participate in the B.Arch. or B.S. programs in the Department of Architecture will be classified as “Regular Admissions” (Fall/Spring Studio Students or Spring/Summer Studio Students) or “Pre-Architecture Admissions.” Please contact the School’s Advising Center for a complete description of admission requirements.

Fall/Spring Studio
Students must meet all of the following requirements:
- 25 ACT or better
- 3.5 GPA in high school
- College preparatory curriculum to include physics and an upper level math (Pre-Calculus or higher)

Space in the studio is limited to 60 students with priority given to first year students who return the School of Architecture Supplemental Information Form by April 1. The form will be sent to all students admitted to the University of Arkansas who choose any of the School of Architecture majors on their University of Arkansas general admissions application.

Students are reviewed at the end of the fall semester and may continue the program if they meet the following criteria:
- “C” or better in ARCH 1014, Architectural Design I
- “C” or better in PHYS 1044 Physics for Architects I or an approved equivalent
- Pass ARCH 1212, Design Methods I
- Maintain a 2.0 GPA

Students who do not meet these criteria will receive a letter and be advised accordingly.

Spring/Summer Studio
These students meet the University of Arkansas minimum requirements for admission but do not meet the above criteria for fall/spring studio. These students may continue into ARCH 1014, Architectural Design I in the spring if they meet the following criteria:
- “C” or better in PHYS 1044 Physics for Architects I or an approved equivalent
- Maintain a 2.0 GPA

Students who do not meet these criteria will be delayed until they sat-
ify the admissions criteria for the Department of Architecture. Students will be reviewed at the end of the spring semester and will not be allowed to continue in the program if they do not meet the following criteria:

- “C” or better in ARCH 1014, Architectural Design I
- Pass ARCH 1212, Design Methods I
- Maintain a 2.0 GPA

**Pre-Architecture Admissions:** Students who are accepted to the University of Arkansas on a provisional basis cannot begin the Fall/Spring or Spring/Summer sequence until the provisions of their admission are met. These are students who have GPAs or ACT scores below the University of Arkansas minimum or have deficiencies in one or more areas (typically math or English). The Pre-Architecture track of study will, in most cases, add one year to their education. Students follow a specified curriculum based on individual needs and are allowed to enter the design sequence only when their provisions are met and a cumulative GPA of 3.00 is achieved. Please see the School's Advising Center for additional information regarding the review process, grade criteria, and continuance in the program.

**Architecture Department Transfer Students and International Students:**

- Completion of first semester core courses (to include an approved general physics course, survey of calculus or finite mathematics and general education core requirements with a minimum of 12 hours credit and a GPA of 2.67).
- To enter Design I in the fall, students must also meet the same requirements for freshmen admits.
- To enter Design I in the spring, students must successfully pass Physics for Architects I (or an approved upper level physics course) with a minimum of C or better, complete survey of calculus or approved math course and maintain a 2.67 GPA overall.

International students must present a TOEFL minimum score of 550 to become eligible for acceptance into the department of architecture.

Lack of knowledge or misinterpretation of policies and/or regulations on the part of individual students will not be considered a valid reason for failure to fulfill requirements.

**Transferring from Accredited Schools of Architecture:** Students transferring from an accredited architectural program must have their architecture courses reviewed for placement and acceptance by submitting materials for review. Please contact the School’s Advising Center for a specific list of required materials.

**NOTE:** All students must complete or receive transfer credit for either PHYS 1044 “Physics for Architects I” or PHYS 2013/2011L “College Physics I”, MATH 2043 “Survey of Calculus” or MATH 2053 “Finite Mathematics” and all other first year university core curriculum courses prior to entry into ARCH 2016 “Architectural Design III” or ARCH 2114 “Architectural Technology I.”

Ultimate responsibility for completion of entrance requirements rests with each student. Please contact the School’s Advising Center, for a complete description of admission requirements.

**Admission to the Professional Program in Architecture**

The department of architecture offers prospective students the opportunity to prepare for architectural practice or related endeavors. With this opportunity comes a responsibility for demonstrating a commitment to personal growth and success in the professional program.

Students are admitted to the first year of the architectural curriculum based on criteria established by the University and by the School of Architecture. They are evaluated by grades in course work and by grades each semester for performance and progress in the design studio sequence.

At the completion of the third year of the department of architecture curriculum, including completion of the 35 semester-credit hours of the University’s general education core requirement, students will be evaluated for admission to the Professional Program on the basis of academic performance in the University core and the Architecture curriculum comprising the sub-disciplines of History/Theory, Technology, and Design. Admission requires a majority vote of the Admissions Committee. Students are encouraged to take maximum advantage of the opportunities that professional and free electives provide for pre-professional development, cultivation of specialization in and related to the profession, and/or preparation for graduate education. Students admitted to the professional program will continue in the established studio curriculum sequence and are to complete the final two years of design studio at the UA School of Architecture. At the time of admission, however, the faculty may recommend or approve an alternative course of study that will allow students to pursue an area of concentration other than design in accordance with the letter and spirit of the curricula. Multidisciplinary alternatives may be developed using electives and coursework from business, engineering and other areas applicable to the practice of architecture.

The University Advanced Composition requirement must be completed either by course work or by exemption via an exam, prior to entry into the fifth year of the professional curriculum.

**University of Arkansas Department of Landscape Architecture Admissions**

All students (including freshmen, international, and transfer students) admitted to the University of Arkansas are eligible for participation in the Landscape Architecture program in the School of Architecture. Space in the studio is limited with priority given to first year students who return the School of Architecture Supplemental Information Form by April 1. The form will be sent to all students admitted to the University of Arkansas who choose any of the School of Architecture majors on their University of Arkansas general admissions application.

Students who require developmental work because of low ACT or SAT scores or University-administered math placement examinations or who require courses to remove deficiencies may not register for courses carrying LARC departmental designations. Upon completion of required developmental work and maintaining a grade-point average of 2.00 or more on at least 12 credit hours, students may enroll in landscape architecture (LARC) courses. Please refer to “Admission to the Professional Program in Landscape Architecture” for required academic levels for entering the program. Please contact the School’s Advising Center for more information.

**Admission to the Professional Program in Landscape Architecture**

The Department of Landscape Architecture offers a professional education grounded in liberal arts studies, which prepares students for landscape architecture practice in the private, public, and not-for-profit sectors. Successful completion of the program requires commitment to personal growth and excellence.

Students are admitted to the first year of the Landscape Architecture program based on the established criteria by the University of Arkansas. Academic and professional performance is evaluated by grades in the course work, design studios, and construction labs. After two years in the program, students submit a portfolio of work at the end of the spring semester for application to continue in the professional program. Applicants who have
a grade-point average below a 1.67 will not be allowed to continue in the program. Contact department head for specific portfolio submission requirements and schedule of deadlines. All candidates will be notified of their acceptance or rejection in writing, normally by the first of August.

Students will be evaluated on general academic performance and in the Landscape Architectural curriculum as well as professional conduct. All department faculty serve on the admissions committee. Any appeal to the committee’s decision may be made by submitting a letter to the department head one week before the first week of the subsequent fall semester. The appeal will be presented to the entire faculty for consideration and will require the candidate to present their case in person.

Students who fail to gain admission to the Bachelor of Landscape Architecture degree program will be referred to the department head and the School’s academic adviser for appeal procedures and alternative degree programs in the School and the University.

SCHOOL SCHOLARSHIPS

More than 70 awards and scholarships, including both merit and need-based scholarships, are available to students in the School of Architecture. Most are awarded annually on the basis of recommendations made by the Scholarship Committee of the School of Architecture. Students must complete three semesters in residence with a minimum of 15 hours per semester to meet eligibility requirements for most scholarships. Only work accomplished since entering the School of Architecture will be considered in determining merit awards based on grade-point averages.

Applications for scholarships are available for prospective and currently enrolled students at http://architecture.uark.edu/126.php

STUDENT ORGANIZATIONS

American Institute of Architecture Students
The American Institute of Architecture Students (AIAS) is a national organization whose purpose is “to organize architecture students and combine their efforts to advance the science and art of architecture, to promote excellence in architectural education, training and practice, and to foster an appreciation of architecture and related disciplines among all persons.” All students in the School’s architecture program are eligible for membership.

American Society of Landscape Architects, Student Chapter
The purpose of the student chapter of the American Society of Landscape Architects is to bring together the landscape architecture students to combine their interests and efforts, to extend their knowledge of the profession of landscape architecture, and to help advance the profession while preparing for a professional career. All students in the School’s landscape architecture program are eligible for membership.

Tau Sigma Delta Honor Society
The Alpha Eta Chapter of Tau Sigma Delta is the only national collegiate honor society recognized in the fields of architecture, landscape architecture, and allied arts. All students of the School are eligible for membership.

Elections to membership are made by the existing membership, subject to approval by the faculty, from fourth-year and fifth-year students maintaining a minimum 3.00 cumulative grade-point average. In addition, leadership, character, and promise of professional merit are considered in making selections.

Construction Specification Institute
Construction Specification Institute (CSI) is a nonprofit technical organization dedicated to the improvement of specifications and building practices in the construction industry through service, education, and research. Founded in 1948, CSI provides a forum for architects, engineers, specification writers, contractors, construction product representatives, students, and others in the construction industry.

Sigma Lambda Alpha
Sigma Lambda Alpha, founded and chartered by the Council of Educators in Landscape Architecture (CELA), is an international honor society that encourages, recognizes and rewards academic excellence in preparation for the profession of landscape architecture. Any landscape architecture junior or senior with an average of 3.2 or higher is eligible for membership.

SCHOOL ACADEMIC REGULATIONS

Plus/Minus Grading System
The School of Architecture utilizes a plus/minus grading system that assigns numerical values to 12 different grades. These values are used for architecture or landscape architecture courses when grade-point averages are calculated. The 12-step grading system with assigned values is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A–</td>
<td>3.67</td>
</tr>
<tr>
<td>A+</td>
<td>4.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B–</td>
<td>2.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C–</td>
<td>1.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D–</td>
<td>0.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Academic Policies – Department of Architecture
The following academic policies, beyond the requirements of the University, are applicable to all students in the Department of Architecture.

1. Any student receiving a grade of “D (+/-)” in a pre-professional program studio course is subject to a comprehensive review of their semester's work by the Design Review Committee. The Design Review Committee may require that the student retake the studio, prior to advancing to the next studio in sequence, in order to demonstrate competence for the required materials as evidenced by achieving a grade of “C” (2.00) or better. A student receiving an “F” in design studio must repeat that studio before progressing.

2. Each student's progress through the Design Studio sequence is monitored and governed by the faculty and subject to a Design Review process.

3. Admission to the Professional Degree Program in the Department of Architecture requires a minimum 2.00 grade-point average in the University Core and each of the sub-disciplines of Architecture: History/Theory, Technology and Design.

4. Enrollment in Architectural Design VII (ARCH 4016) is contingent upon admission to the Professional Program in architecture as described above.

5. Successful completion of the upper level studios of the professional degree program (ARCH 4016, ARCH 4026, ARCH 5016, ARCH 5026) requires demonstration of competence as evidenced by achieving a grade of “C” (2.00) or better in those courses. Failure to achieve this minimum standard will require retaking the studio.
6. Any student receiving an “I” in a design studio must complete all work necessary to receive a grade prior to the first day of the next studio in the student’s prescribed sequence to be eligible to enroll in that studio.

7. Prior to graduation, a student must present a 2.00 cumulative grade-point average at this institution in all work attempted including the University Core, electives, and in each of the sub-disciplines of Architecture: History/Theory, Technology and Design.

**Design Review Procedure – Department of Architecture**

Design Review is a process initiated by a faculty member, department head or by a student in order that a committee comprising studio faculty may review a student’s design work within a studio course. The review process may be used by students to appeal grades and to seek resolution of conflicts with studio faculty in which it is believed there are questions of fairness and equity in the application of the published grading policy of the faculty member. Faculty reviews are predicated upon, but are not limited to, student work that may receive a “D” grade or lower.

Grade appeals initiated by students will occur during the week prior to the start of class in the subsequent semester. Petitions for this review must be made through the Advising Center prior to the scheduled meeting of the Design Review Committee. Grade appeals may be filed as soon as the student receives his or her final grade.

In all cases, the student shall exhibit, at the place and time specified by the Design Review Committee, ALL work assigned and attempted for the studio in the semester under review. Faculty are required to provide appropriate documentation including, but not limited to, the course syllabus, grading policy, and semester assignments. In the case of an appeal, the student is requested to meet with the faculty committee.

The outcome of the Design Review process may include:
1. A recommendation to the faculty member regarding the grade appeal of the student.
2. A requirement for the student to repeat the design studio course and any co-requisite.
3. A recommendation for enrollment in the subsequent studio course, while advising the student of the need to achieve and maintain a cumulative 2.00 (in the studio sequence) for admission to the professional program.

**Grade Appeals – Department of Landscape Architecture**

Students in the Department of Landscape Architecture may appeal grades in the design studios as well as other professional courses in which it is believed that there are questions of fairness or equity in the application of the published grading policy of the faculty member. Appeals must be made in writing to the department head one week before the first week of the subsequent semester. The appeal will be presented to the entire Landscape Architecture faculty for consideration and may require the students to present their case in person.

**Off-Campus Study Requirement**

Each student in the professional program in architecture is required to complete an approved off-campus study experience focusing upon complex urban relationships, and fostering cultural diversity. Approved programs in Architecture include a semester in Rome and a summer design studio in Mexico City.

Each student in the department of landscape architecture is required to participate in a summer study in Europe. This program exposes students to urban design and planning approaches. The program takes place after the student’s third year of design studios.

A special international programs fee supports the School of Architecture’s international programs. These fees are assessed to all students participating in architecture and landscape architecture designated in the “Fees and Cost Estimates” section of this catalog. The international program fees offset costs of maintaining off-campus programs that are not a part of the School’s University-funded budget, as well as enhancing student-centered activities. The fee is assessed for each study abroad program. For further information, see notes on related program fees under “Fees and Cost Estimates” for the University.

**Ownership of Work**

All original work submitted for credit, including design studio projects, becomes the property of the School of Architecture. Students are required to maintain portfolios documenting all academic and design studio work. Digital copies (compact discs) of all work completed in a studio must be submitted to the studio year coordinator in order to receive a grade for the studio.

**School Computer Policy**

All students enrolled in the School of Architecture are required to supply, by the beginning of the second year, a personal computer matching or exceeding specifications issued by faculty. The specifications, which are updated annually, are available through the Advising Center or at http://architecture.uark.edu/172.php. A substantial amount of software may be required depending on specific course requirements. The School has two computer labs, one in each department, equipped for output and scanning for digital production. All studios are wired for Internet access.

**HONORS PROGRAM**

The Departments of Architecture and Landscape Architecture provide opportunities for students of superior academic and creative ability to enhance and enrich their professional and liberal education by participating in the School’s Honors Programs. Please contact the School’s Advising Center for specific information.

**Invitation to Join the School of Architecture Honors Program**

Students who present a composite ACT score of 28 (or higher) and a high school GPA of 3.5 or higher during admission will be invited to enroll in the School of Architecture Honors Program. Currently enrolled students with the same qualifications majoring in any of the School’s degree programs will also be invited to join the School of Architecture Honors Program. All School of Architecture Honors Scholars are required to maintain a minimum cumulative GPA of 3.5 to remain in the program. Architecture Honors Program students who fail to maintain a 3.5 cumulative GPA, will receive a one-semester probation period prior to dismissal from the program.

Continuing students and transfer students may be invited to join the School of Architecture Honors Program if they maintain a cumulative GPA of 3.5 or higher in courses completed at the University of Arkansas by the end of their first semester of study. Every semester, the Architecture Advising Center will apprise the School’s Honors Program Committee of students who have achieved this level of excellence and are eligible to join the Architecture Honors Program. Invitations are extended to students following the semester in which they qualify. Continuing students are encouraged to consult the School of Architecture Honors Committee and the School of Architecture Advising Center before deciding the level of honors distinction they wish to pursue.
Department of Architecture Honors Program Requirements

The Distinguished Scholars Program

1. Bachelor of Architecture

Completion of 44 credit hours of honors designated courses, to include a minimum of:
- University Core Honors Courses 12
- Professional Core Honors Courses in Architecture 11
  (Architectural Technology and/or History of Architecture)
- Honors Professional Electives or upper level (3000+) 6
  university honors courses
- Methods of Architectural Research colloquium 3
- Honors Thesis Research Project 12

2. Bachelor of Science in Architectural Studies

Completion of 35 credit hours of honors designated courses, to include a minimum of:
- University Core Honors Courses 12
- Professional Core Honors Courses in Architecture 8
  (Architectural Technology and/or History of Architecture)
- Honors Professional Electives or upper level (3000+) 6
  university honors courses
- Methods of Architectural Research colloquium 3
- Honors Thesis Research Project 12

The Departmental Scholars Program

1. Bachelor of Architecture

Completion of 24 credit hours of honor designated courses, to include a minimum of:
- Professional Core Honors Courses in Architecture 3
  (Architectural Technology and/or History of Architecture)
- Honors Professional Electives or upper level (3000+) 6
  university honors courses
- Methods of Architectural Research colloquium 3
- Honors Thesis Project 12

2. Bachelor of Science in Architectural Studies

Honors Professional Electives or upper level (3000+) 6
- Honors Thesis Project 12

Department of Architecture Honors

Thesis/Research Project

All honors students will pursue a research project during the final year of their undergraduate program. Students in the Bachelor of Architecture curriculum invest 12 credit hours in a research topic developed within a studio environment involving both design and research skills or they can pursue a traditional research thesis, articulating topics identified in the Methods of Architectural Research colloquium. Bachelor of Science in Architectural Studies students develop traditional theses for six credit hours. The Research Project involves original work by each student under the direction of a committee which shall include a thesis director (for most students, this will be the research-studio instructor). Typically, students will complete and present a written prospectus for the Research Thesis no later than the Friday before spring break before the fall semester of the final year of study, (e.g. the semester prior to the thesis). For honors students pursuing major concentrations in the Department of Architecture, the thesis requirements of the concentration area supercede Architecture Honors Program requirements.

Students shall meet a schedule of interim requirements established by the Thesis Committee in consultation with the Architecture Honors Committee. Guidelines for topic selection and preparation of the Honors Thesis/Research Project are available from the Architecture Honors Committee.

Department of Landscape Architecture Honors Program

Required Course Work

Initially, a 28 composite ACT score and a 3.5 GPA in the first semester are required for admission to the University Honors Program. However, students who accomplish and maintain a 3.5 GPA in University of Arkansas course work may be offered an invitation from the School of Architecture Honors Committee to join the Honors Program.

Honors Program Required Coursework

The Distinguished Scholars Program

An honors student in the Department of Landscape Architecture is required to take a total of 38 credit hours of honors courses within the University and Department for graduation. This course work is summarized as follows:

<table>
<thead>
<tr>
<th>Course Work</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Core or Electives at the Honors level</td>
<td>12</td>
</tr>
<tr>
<td>Landscape Architecture Professional Core at the Honors level, which may include design studio, construction laboratory, or history class Professional Electives, as identified with the Professional Core, at the Honors level, which may include coursework within the Landscape Architecture Department or from other University department programs.</td>
<td>11</td>
</tr>
<tr>
<td>Honors Thesis or project as described below</td>
<td>6</td>
</tr>
</tbody>
</table>

Department Scholars Program Required Coursework

Honors Program in the Department of Landscape Architecture

An honors student in the Department of Landscape Architecture is required to take a minimum total of 18 credit hours of honors courses within the University and Department for graduation. This course work is summarized as follows:

<table>
<thead>
<tr>
<th>Course Work</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landscape Architecture Professional Core at the Honors level, which may include design studio, construction laboratory, or history class; Professional Electives, as identified with the Professional Core, at the Honors level, which may include coursework within the Landscape Architecture Department or from other University department programs.</td>
<td>12</td>
</tr>
<tr>
<td>Honors Thesis or project as described above</td>
<td>6</td>
</tr>
</tbody>
</table>

Each Honors student shall have a department faculty adviser who will consult with the student throughout the university experience. The adviser will meet with the student a minimum of two times every fall and spring semester and correspond at least once during the summer. These sessions are venues for students to discuss their academic progress, course work, community service activities, and leadership development opportunities.

Honors courses within the Professional Core may be fulfilled through independent study or additional course work within the History of Landscape Architecture, Contemporary Landscape Architecture, Construction III, and Construction IV.

The student may also select honors work within Design Studio VI or VII. Additional work may include in-depth precedent research and design applica-
isions, and increased design resolution and details, as determined by the studio instructor. In addition, a student may choose an independent studio with mutual faculty agreement. This studio option is in addition to the required studios in the professional program and would only be available during the spring or summer semester of the fourth or fifth year.

An Honors student will be required to fulfill 6 credit hours of a written academic thesis or thesis design project. For the written thesis option, the student shall take a 3-credit-hour professional elective directly related to the thesis topic, and 3 credit hours of Special Projects with student’s thesis adviser or other faculty designee. For the studio thesis option, the student shall take an honors-level 3-credit-hour Senior Project Preparation course, and an honors-level, 3-credit-hour Special Topics in Design Research in the same semester. The Design Studio VIII will not be offered at the honors level. All landscape architecture students in the professional program are required to complete a Senior Demonstration Project. Honors students pursuing the thesis design option are expected to integrate significant research within the design. Landscape Architecture Study students will be required to take two Special Topics in Design Research as partial fulfillment of the 6-credit thesis requirement. The last requirement will be a presentation and defense of the work to a jury from the department and other relevant academic advisers. All Honors students are highly encouraged to take a research methods course within the subject or topic area, scheduled prior to thesis work.

ACCREDITATIONS

The architecture program was founded in 1946 and has been accredited by the National Architectural Accrediting Board (NAAB) since 1958. The landscape architecture program was established in 1975 and has been accredited by the Landscape Architecture Accreditation Board (LAAB) of the American Society of Landscape Architects (ASLA) since 1983. The School holds memberships in the Association of Collegiate Schools of Architecture (ACSA) and the Council of Educators in Landscape Architecture (CELA), organizations comprised of North American schools of architecture and landscape architecture.

In the United States, most state registration boards require a degree from an accredited professional degree program as prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Masters of Architecture and the Doctor of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master’s degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

The Landscape Architecture Accreditation Board (LAAB) is the sole agency authorized to accredit U.S. professional degree programs in Landscape Architecture. LAAB recognizes the Bachelor of Landscape Architecture, Bachelor of Science in Landscape Architecture, and Masters of Landscape Architecture. It accredits each program every five years, evaluating degree of conformance with established educational standards.

Masters degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

DEPARTMENTAL MAJORS

ARCHITECTURE (ARCH)

Departmental Office
120 Vol Walker Hall
479-575-4945
- University Professor Emeritus Smart
- University Professor Emeritus Vickar
- Professor Blackwell, Goodstein-Murphee, Luoni, Shannon, Vitale, Wall
- Associate Professor de Noble, Fields, Herman, Sexton, Terry
- Assistant Professor Hughes, Messadi, Smith
- Clinical Assistant Professors Fitzpatrick, Rotolo, Sarpaneva
- Adjunct Assistant Professors Del Gesso, Gabriel, Piga, Rudzinski

Bachelor of Architecture Degree

Bachelor of Architecture Degree
Hours
1. Completion of the following 92-hour professional program:
   Architectural Design
   ARCH 1014, ARCH 1024, ARCH 2016, ARCH 2026,
   ARCH 3016, ARCH 3026, ARCH 4016,
   ARCH 4026, ARCH 5016, ARCH 5026
   Architectural Technology
   ARCH 2114, ARCH 2124, ARCH 3134,
   ARCH 4154
   History and Theory of Arch.
   ARCH 1212, ARCH 1222, ARCH 2233,
   ARCH 2243, ARCH 4433, ARCH 4523
   Professional Practice
   ARCH 5314
   16
2. Completion of the 35-hour general University Core as listed on page 40. In addition, specific requirements are listed below:
   Mathematics
   MATH 2043 or MATH 2053
   Laboratory Science
   PHYS 1054 or PHYS 2033/2031L, strongly recommended.
   PHYS 1054 or PHYS 2033/2031L, strongly recommended.
   8
3. Completion of 27 hours of electives, as follows:
   Professional Electives
   Chosen from upper-level courses (courses numbered 3000 or above) taught on the Fayetteville campus in the School of Architecture and allied disciplines. Students participating in the Rome program may present only three hours of elective course work for professional elective credit. All other elective courses will be used to fulfill free elective requirements.
   Free Electives
   15
   4. A minimum of 157 hours with a 2.00 cumulative grade-point average at this institution both in all work attempted and in all professional course work attempted is required. See Academic Policies.
   5. Completion of the University Advanced Composition requirement either by course work or exemption by exam.
   6. Participation for at least one semester in an approved international educational experience. (See Off-Campus Study Requirement, page 105.)
NOTE: No more than three hours of physical education and/or R.O.T.C. may be counted toward a degree. Courses not acceptable toward degree credit include those of a remedial or orientation nature and whose content are considered to be measurably duplicated elsewhere in the curriculum. ENGL 2003 is not counted toward degree credit, nor is ARCH 1003 for Architecture majors.

By following the preceding curriculum, students will meet the state-mandated University Core Requirements. They must also meet all other University requirements for graduation (page 40). Transfer students are required to present a minimum of one semester of physics (with laboratories) and a strongly recommended second course in physics as fulfillment of the science requirement in the State Minimum Core. See University Core Requirements, page 40. Physics is preparatory to architectural technology courses; students presenting a different science option may have difficulty in the architectural technology courses.

Sample curriculum for the Bachelor of Architecture degree can be obtained from the School’s Advising Center.

Professional Licensure Degree Requirement
The National Architectural Accrediting Board (NAAB) only accredits professional programs offering the Bachelor of Architecture, which requires a minimum of five years of study, and the Master of Architecture degrees. These professional degrees are structured to educate those who aspire to registration and licensure to practice as architects. The curricular requirements for awarding these degrees must include three components — general studies, professional studies, and electives. Together these three components comprise a liberal education in architecture and ensure that graduates will be technically competent, critical thinkers who are capable of defining multiple career paths within a changing societal context.

While no four-year degrees are accredited by NAAB, the Bachelor of Science in Architectural Studies degree is excellent for those who want a foundation in the field of architecture as preparation for either continued education in a professional degree program or for employment in fields related to architecture.

Major Concentration in the History of Architecture and Urbanism

The major concentration (not considered an official minor) in the History of Architecture and Urbanism requires at least 33 semester hours and must include the following:
1. Completion of requirements for admission to the professional program in architecture, including ARCH 2233, ARCH 2243, ARCH 4433 and ARCH 4523, and presentation of a 3.25 grade-point average.
2. At least nine hours of professional electives in the history and theory of architecture and urbanism. Sample courses in this specialization include the following:
   - American Architecture and Urbanism – select from ARCH 4483 Architecture in the Americas
   - ARCH 5933 Preservation & Restoration
   - ARCH 4023 History of the City in American Art and Culture
   - ARCH 4023 House Culture
   - LARC 3413 History of Landscape Architecture
   - LARC 4413 Contemporary Landscape Architecture

   Students declaring a specialization in American Architecture may develop an emphasis in Historic Preservation; ARCH 5933 is required for the emphasis.

   Early Modern (Renaissance and Baroque) Italy – select from ARCH 4023 Italian Arch. from the Renaissance to the Present
   - ARCH 5493 History of Urban Form

Minor Concentration in the History of Architecture and Urbanism
The minor concentration in the History of Architecture and Urbanism (not considered an official minor) requires at least 18 semester hours and must include the following:
1. Completion of requirements for admission to the professional program in architecture, including ARCH 2233, ARCH 2243, ARCH 4433, and ARCH 4523.
2. At least nine hours of professional electives in any area of architectural and urban history.
3. Three hours, Methods of Architectural Research Colloquium
4. At least six hours in humanities and/or social science courses related to the minor concentration.
5. The research thesis is optional for students in the minor.
6. See Major Concentration list above.

SEE PAGE 317 FOR ARCHITECTURE (ARCH) COURSES
Bachelor of Science in Architectural Studies

The Bachelor of Science in Architectural Studies incorporates course work from the School of Architecture with liberal studies for students with interests that fall outside the parameters of the accredited professional degree program. The architectural studies program provides opportunities for students who wish to prepare for graduate study in an accredited architecture program or in an allied discipline, such as architectural history, historic preservation, urban planning, or construction management, as well as serving students who seek opportunities in related fields that may not require the five-year accredited degree.

Requirements for a Bachelor of Science Degree in Architectural Studies

1. Completion of the following 35-hour architectural studies program:
   - Architectural Design
     - ARCH 1014, ARCH 1024, ARCH 2016
     - 14 hours
   - Architectural Technology
     - 8 hours
   - History and Theory of Arch.
     - ARCH 1212, ARCH 1222, ARCH 2233, ARCH 2243, ARCH 4433 (Students interested in Landscape Architecture may substitute LARC 3413 for ARCH 2233 or ARCH 2243.)
   - 13 hours
2. Completion of the following 35-hour general education program:
   - English Composition
     - ENGL 1013, ENGL 1023
     - 6 hours
   - American History or Government.
     - 3 hours
   - Mathematics
     - MATH 2043 or MATH 2053
     - 3 hours
   - Laboratory Science
     - 8 hours
   - PHYS 1044 and PHYS 1054 are recommended.
   - Fine Arts/Humanities
     - 6 hours
   - One course must be elected from the fine arts core; one course from the humanities must be selected from PHIL 2003, PHIL 2103, PHIL 2203, or PHIL 3103. (See University Core Requirements)
   - Social Science
     - At least three hours should be taken in anthropology, economics, psychology, or sociology; and with not more than two courses taken from any one department to fulfill this requirement. (See University Core Requirements)
     - 9 hours
3. Completion of the following 21-hour basic program in the arts:
   - Communications
     - COMM 1313
     - 3 hours
   - Humanities and Social Sciences
     - HIST 1003 and HIST 1013, or HIST 1113 and HIST 1123
     - 12 hours
   - WLIT 1113 and 3 hours from WLIT 1123; a foreign language literature course; CLST 1003; or CLST 1013. (CLST 1003 or CLST 1013 are recommended for architectural studies students.)
   - Arts and Sciences
     - 6 hours
   - A minimum of six hours in courses numbered above 3000 (not including any courses cross-listed with architecture).
   - 6 hours
4. Completion of the following foreign language requirement.
   - Foreign Language (depending upon placement)
     - 0-12 hours
   - Students must demonstrate proficiency in a single modern or classic language other than English, usually by completing a sequence of four courses (1003, 1013, 2003, 2013). Students meeting the normal admission standard (two years of one foreign language in high school) may expect to satisfy this requirement with fewer courses, depending upon placement.
5. Completion of 21 hours of electives:
   - Professional electives
     - At least 6 hours in upper-level (3000 or above) courses taught in the School of Architecture. The remaining professional elective credits may be additional upper-level courses in the School of Architecture, approved courses in an allied discipline, or courses in another department of the University that contribute to the fulfillment of a recognized minor.
   - Free electives
     - 9 hours
6. A minimum of 124 hours with a 2.00 cumulative grade-point average at this institution both in all work attempted and in course work completed in the School of Architecture.
7. Presentation of at least 40 semester hours in courses numbered 3000 or above in the School of Architecture. Additional upper-level courses in Architecture numbered 3000 with specific course prerequisites.
8. Completion of the University Advanced Composition requirement, either by course work or exemption by exam.
9. Each student graduating in Architectural Studies must write a research/analytical paper in at least one upper-division course in her or his major or minor area.
10. Course work taken to remove course deficiencies assigned during admission or transfer will not be counted toward the degree. Similarly, courses considered to be remedial or developmental will not count toward the degree.
11. Unless exceptions are granted at the time of admission to the University of Arkansas, transfer work in which grades of “D” or “F” were earned will not be allowed toward credit for graduation. See the Admission chapter in this catalog for more information.

Architectural Studies Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. During the first year, students who have been admitted to the Fall-Spring Design Studio and students who have been to the Spring-Summer Design Studio follow different schedules, both of which are listed below, with the Fall-Spring Studio first and then the Spring-Summer Studio. The second, third and fourth years are identical for both studios.

Fall-Spring Design Studio

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ARCH 1014, Design I</td>
<td></td>
</tr>
<tr>
<td>2 ARCH 1212, Intro to Environmental Design I</td>
<td></td>
</tr>
<tr>
<td>3 ENGL 1013, Composition I</td>
<td></td>
</tr>
<tr>
<td>3 HIST 2003 or 2013, American History or PLSC 2003, American Government</td>
<td></td>
</tr>
<tr>
<td>4 PHYS 1044 Physics for Architects I</td>
<td></td>
</tr>
<tr>
<td>(Some students may be required to take FYE)</td>
<td></td>
</tr>
<tr>
<td>16-17 Semester hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ARCH 1024, Design II</td>
<td></td>
</tr>
<tr>
<td>2 ARCH 1222, Intro to Environmental Design II</td>
<td></td>
</tr>
<tr>
<td>3 ENGL 1023, Composition II</td>
<td></td>
</tr>
<tr>
<td>3 MATH 2043, Survey of Calculus or MATH 2053, Finite Mathematics</td>
<td></td>
</tr>
</tbody>
</table>
### Spring-Summer Design Studio

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Details</th>
</tr>
</thead>
</table>
| Fall Semester Year 1 | 3 ENGL 1013, Composition I  
3 HIST 2003, 2013, American History or PLSC 2003, American Government  
4 PHYS 1044 Physics for Architects I  
3 Social Science Core  
(Some students may be required to take FYE)  
13-14 Semester hours |

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Details</th>
</tr>
</thead>
</table>
| Spring Semester Year 1 | 4 ARCH 1014, Design I  
2 ARCH 1212, Design Methods I  
3 ENGL 1023, Composition II  
3 MATH 2043, Survey of Calculus or MATH 2053, Finite Mathematics  
4 Science Core requirement. Recommended: PHYS 1054 Physics for Architects II  
16 Semester hours |

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Details</th>
</tr>
</thead>
</table>
| Summer Session Year 1 | 4 ARCH 1024, Design II  
2 ARCH 1222, Design Methods II  
6 Semester hours |

### Prior to Second Year

PHYS 1044, PHYS 1054 (or an approved alternate laboratory science in the University Core) and MATH 2043 or MATH 2053 must be completed before students can begin second-year courses in Architecture. Transfers and change-of-majors seeking exceptions to the sample curriculum will be reviewed on an individual basis.

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course Details</th>
</tr>
</thead>
</table>
| 6 ARCH 2016, Architectural Design I  
3 ARCH 2233, History of Architecture I  
4 ARCH 2114, Architectural Technology I  
3 Social Science Core Requirement  
16 Semester hours |

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course Details</th>
</tr>
</thead>
</table>
| 3 ARCH 2243, History of Architecture II  
4 ARCH 2124, Architectural Technology II  
3 COMM 1313, Fundamentals of Communication  
3 Fine Arts/Humanities Core  
3 Social Science Core Requirement  
16 Semester hours |

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>Course Details</th>
</tr>
</thead>
</table>
| 3 ARCH 4433, History of Architecture III  
3 HIST 1003 Institutions and Ideas of Western Civilization or HIST 1113, World Civilization  
3 WLIT 1113, World Literature I  
3 Social Science Core  
3 Foreign Language  
15 Semester hours |

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course Details</th>
</tr>
</thead>
</table>
| 3 Fine Arts/Humanities Core  
3 HIST 1013 Institutions and Ideas of Western Civilization II or HIST 1123, World Civilization II  
3 WLIT 1123, World Literature II; CLST 1003, Intro to Classical Studies: Greece; or CLST 1013, Intro to Classical Studies: Rome  
3 Foreign Language |

Architectural Studies degree candidates may pursue an academic minor. The minor must be in a field other than the major area, and students must notify the department of their intention to minor. An academic minor ordinarily consists of 15-18 hours. Although students in architectural studies may choose from any recognized minor offered by the University, they are encouraged to consider the following fields:

- African-American Studies
- Anthropology
- Art
- Art History
- Business Administration
- Classical Studies
- Communication
- Computer Sciences
- Drama
- Economics
- English

- Environmental Studies
- European Studies
- Gender Studies
- Geography
- History
- Historic Preservation
- Latin-American Studies
- Philosophy
- Psychology
- Political Science
- Sociology

Although foreign study is not required of candidates for the four-year degree, students in the architectural studies curriculum are encouraged to participate in the School of Architecture's off-campus study programs in Rome and Mexico City. Architectural studies majors also may take advantage of the community service opportunities offered through the University of Arkansas Community Design Center (UACDC).

To take maximum advantage of the opportunities the four-year degree offers for pre-professional development (cultivation of specialization in and related to the field, and/or preparation for graduate study) each candidate for the Architectural Studies degree will work with a faculty adviser to develop a program of study emphasizing a student’s special interests.

A sample curriculum for the Bachelor of Science in Architectural Studies degree can also be obtained from the School's Advising Center.
Bachelor of Landscape Architecture Degree

1. Completion of the following 95-hour Professional core:
   - Design and Graphics: 56 Hours
     LARC 1315, LARC 1325, LARC 2113, LARC 2336,
     LARC 2346, LARC 3356, LARC 3914, LARC 3366
     LARC 4376, LARC 4383, LARC 5386
   - Landscape Architecture/History/Theory: 12 Hours
     LARC 1211, LARC 1221, LARC 3413, LARC 4413,
     LARC 3924
   - Summer Study Abroad: 6 Hours
     LARC 3933, LARC 4123
   - Landscape Architecture Technical Courses: 19 Hours
     LARC 2714, LARC 3724, LARC 3734, LARC 4714
   - Professional Practice: 3 Hours
     LARC 5613

2. Completion of the 35-hour University Core as listed on page 40.
   As part of the University Core, the department recommends the following:
   - Laboratory Science: 8 Hours
     BIOL 1543/1541L or BIOL 1613/1611L and GEOL
     1113/1111L are recommended.
   - Summer Study Abroad: 6 Hours
     LARC 3933, LARC 4123

3. Completion of the following additional general education requirements:
   - Professional Electives: 15 Hours
     Students may select courses from the Departments of
     Landscape Architecture and Architecture as well as
     courses in history, geography, horticulture, art, sociology,
     environmental studies, and business. These courses can
     be thematically selected to emphasize urban studies,
     ecological planning, construction management, and land
     development.
   - Free Electives: 12 Hours
     Students are encouraged to take courses outside the
     Department to broaden their education.

4. Candidates seeking graduation shall achieve a minimum of 157
   hours and a minimum of a "C-" in each course within the profes-
   sional curriculum. The remaining balance of hours shall have a
   minimum of 2.00 cumulative grade-point average.

   Any student receiving a "D+/-" or below in the professional
   core shall repeat the course. Any student with a second "D+/-"
   or below shall be considered for non-continuance in the program
   as determined by the department head and faculty.

   To continue in the professional program, the student must submit
   a portfolio after their second year for faculty review. Please see section
   "Admission to the Professional Program in Landscape Architecture."

5. Students in landscape architecture are required to complete the
   department's summer study abroad program, after their third year.

Professional Licensure Degree Requirement

The School's BLA program is accredited by LAAB, which requires that
specific criteria be met in a professional program. This five-year professional
program gives its graduates the required pre-requisite degree to qualify to take
the licensing exam and prepares them for practice.

Forty-four states require licensure for landscape architects. The primary
purpose of this licensure is to "protect the health, safety, and welfare of the
public." Most states require that candidates possess an accredited degree in
landscape architecture and complete a period of professional experience,
working with a licensed landscape architect. Once these requirements are
complete, candidates must pass a national, uniform exam, sometimes with
additional sections unique to that state. Sample curriculum for the Bachelor
of Landscape Architecture degree can be obtained from the School of Archi-
tecture Advising Center.

Bachelor of Science in Landscape Architectural Studies

The Bachelor of Science in Landscape Architectural Studies program
focuses either on landscape architecture studies or on environmental design
issues, which serve students who wish to pursue a career in the profession of
landscape architecture but do not seek licensure. The program utilizes exist-
ing professional courses within the Departments of Landscape Architecture,
Architecture and the University to fulfill the required course work. The total
number of hours of credit required for graduation is 124.

This degree program opens the opportunity to more individuals who
have interests that can further the body of knowledge within the profes-
sion. For example, specialist areas are growing in the sub-fields of cultural
landscape preservation and documentation, critical analysis of built works,
contemporary case-study development, and urban planning and design. This
program prepares students for work in private-sector landscape architecture
and planning offices, public policy and administration departments, and the
not-for-profit sector. Students will be prepared for graduate school and can
pursue professional degrees in landscape architecture, urban planning and
design, business, and law, and graduate degrees in historic landscape preserva-
tion, history, public policy, public administration, and journalism.

Requirements for a Bachelor of Science in Landscape Architectural Studies

1. Completion of the following 35-hour landscape architecture studies program:
   - Landscape Architecture Design: 3 Hours
     LARC 1315, LARC 1325, LARC 3914, LARC 2113,
     LARC 2123
   - Landscape Architecture Technology LARC 2714 or
     LARC 4743 or LARC 3724
   - History and Theory of Landscape Architecture: 1 Hour

   NOTE: No more than four hours of physical education and/or R.O.T.C.
   may be counted toward a degree. Courses not acceptable toward degree credit
   include those of a remedial or orientation nature and whose content are considered
   to be measurably duplicated elsewhere in the School's curriculum. ENGL 2003
   is not counted toward degree credit nor is LARC 1003 for BLA majors.

   By following the preceding curriculum, students will meet the state-
mandated University Core Requirements. They must also meet all other
University Requirements for graduation (page 40). We strongly recommend
that transfer students present eight hours of laboratory science courses se-
lected from botany, biology, geology, and physical science as part of the State
Minimum Core.

Departmental Office
231 Memorial Hall
479-575-4907

• Professor Crone
• Associate Professors Beatty, Boyer, Brittumen
• Assistant Professor Smith

University of Arkansas, Fayetteville
Research thesis preparation
LARC 302V

2. Completion of the following 27-hour basic program in the arts:
   Communications 3
   COMM 1313
   Humanities and Social Sciences 12
   HIST 1003 and HIST 1013 or HIST 1113 and HIST 1123, WLIT 1113 and 3 hours from WLIT 1123 or a
   foreign language literature course, CLST 1003 or
   CLST 1013
   Arts and Sciences 12
   A minimum of twelve (12) hours in courses numbered
   above 3000 (not including any courses cross-listed in the
   School of Architecture).

3. Completion of the following foreign language requirement
   Foreign Language 0-6
   Depending on placement, students must be introduced
   to a single modern or classic language other than English
   by completing two courses (1003 and 1013 or 2003 and
   2013). Students with two years or more in one foreign
   language in high school may satisfy this requirement with
   higher-level course work

4. Completion of 21 hours of electives
   Professional Electives 12
   Credits may be from upper-level (3000 or above) courses
   from the departments of landscape architecture and
   architecture, sociology, geography, horticulture or other
   approved courses in an allied discipline or other courses
   that contribute to the fulfillment of a recognized minor.
   Free Electives 9

5. University Core 35
   A minimum of 124 hours with a 2.00 cumulative grade-point average at
   this institution both in all work attempted and in course work completed in the
   Department of Landscape Architecture and the School of Architecture.
   Presentation of at least 40 semesters in courses numbered 3000 or above
   or courses in the School of Architecture numbered 2000 with specific course
   prerequisites.
   Completion of the University Advanced Composition requirement, either
   by course work or exemption by exam.
   Each student graduating in Landscape Architectural Studies must write a
   research/analytical paper in at least one upper division course in his or her major
   or minor areas. Prior to or in association with developing this paper, the student
   must select a faculty from the Department of Landscape Architecture from
   whom to take a Special Studies one-credit preparation and review course.
   Course work taken to remove course deficiencies assigned during admission
   or transfer will not be counted toward the degree. Similarly, courses considered to
   be remedial or developmental will not count toward the degree.
   Transfer work in which grades of “D” or “F” were earned will not be allowed
   toward credit for graduation.

Landscape Architecture Studies Eight-Semester
Degree Program
   Students wishing to follow the eight-semester degree plan while pursuing a
   Bachelor of Science in Landscape Architectural Studies should see page 42 in the
   Academic Regulations chapter for university requirements of the program.
Landscape Architectural Studies candidates may pursue an academic minor. The minor must be in a field other than the major area, and the students must notify the department of their intention to minor. An academic minor ordinarily consists of 15-18 hours, which are dictated by the department of the minor. Students in Landscape Architectural Studies may choose from any recognized minor offered by the University; however, they are encouraged to consider the following fields:

- Public Policy, History, Geography, and Horticulture, and further encouraged to consider cross-disciplinary study in African-American Studies, Anthropology, Art, Art History, Business Administration, Classical Studies, Communication, Computer Sciences, Economics, English, European Studies, Gender Studies, Latin-American Studies, Philosophy, Political Science, Psychology and Sociology.

Although foreign study is not required for candidates in Landscape Architectural Studies, students in the curriculum are encouraged to participate in the School of Architecture's off-campus study programs in Rome and Mexico City. Community planning projects are offered through the University of Arkansas Community Design Center (UACDC).

To take maximum advantage of the opportunities of the four-year degree program, each student in the Landscape Architectural Studies program shall work with the department head to develop a program of study emphasizing special interests, to cultivate a specialization related to the field, and to guide preparation for graduate study, if desired.

SEE PAGE 367 FOR LANDSCAPE ARCHITECTURE (LARC) COURSES
Few in 20th century America have done more to advance the study of international relations or promote human understanding than J. William Fulbright. Committed to the idea that a free society and a peaceful world require, above all, an educated citizenry, he urged with unflagging energy the use of historical perspective, cultural relativity, and scientific objectivity in the study of human affairs. Senator Fulbright, like Thomas Jefferson, Andrew Jackson, and Abraham Lincoln before him, was committed to the belief that an educated, enlightened electorate will unerringly act not only in its own self-interest but also in the interest of all the people of the world.

In recognition of J. William Fulbright’s contribution to the cause of liberal education and of his many services to his native state, the Board of Trustees of the University of Arkansas on November 20, 1981, resolved...

The college, dedicated to the Fulbright philosophy that liberal education is necessary for enlightened citizenship in a democratic society, has adopted as its mission the following statement from Fulbright’s writings: “... the highest function of higher education is the teaching of things in perspective, toward the purposes of enriching the life of the individual, cultivating the free and inquiring mind, and advancing the effort to bring reason, justice, and humanity into the relations of men and nations.

Consisting of 19 departments and numerous centers and research units, Fulbright College has a twofold mission: to provide a broad, liberal education to all students within the University community and to furnish specialized knowledge at the upper division and graduate levels leading to a professional career. The general education curriculum within the college is designed to assure students’ mastery of the English language, provide knowledge of the historical, social, intellectual, and linguistic bases of human culture, provide habits of thought and investigation useful in later life, encourage exploration and development of aesthetic, political, and ethical values, and offer the necessary foundation for professional competence or further training in professional or graduate schools. The general education curriculum of the college is based on the Platonic assumption that the pursuit of knowledge is an intrinsically good activity and that it is incumbent upon all members of an enlightened society to engage in that pursuit.

Recognizing that its students must become productive members of contemporary American society, Fulbright College offers undergraduate majors in 40 different fields ranging from chemistry and art to journalism and German. In addition, the college, in cooperation with the Graduate School, offers course work leading to master’s degrees in 32 fields and doctoral degrees in 11 fields. As a natural corollary of their instructional role, faculty members of the college pursue active research programs in their fields and programs that enable them simultaneously to provide state-of-the-art education to their students and bring national and international recognition to the University.

In sum, Fulbright College lies at the very heart of the University. The seat of liberal learning within the institution and the state, it is committed to providing excellent general education to all members of the student body and specialized instruction of the highest quality to its own majors.
in Old Main 517. The faculty of each department within Fulbright College assumes responsibility for advising junior and senior-level students who have declared majors in the department and those who have declared current interest in the department as a possible major area. Other advisory services exist to provide aid and direction to students who are non-degree candidates as well as those who are beginning work in the college without having yet decided on a major and those who are planning to attend professional schools such as those for medicine or pharmacy. Advisers in the Fulbright Advising Center will assist students in program planning and will help them to become aware of and familiar with the academic offerings of the university. Students should consult their advisers on a regular basis, not limited to registration matters but including all areas of their academic careers. Personnel in the Fulbright College Advising Center or the Dean's office will direct students to the appropriate advising office.

Students should discuss with their advisers opportunities for individual variations as well as regular course requirements. Programs and facilities of particular interest to individuals may include the Honors Program, programs for advanced placement and credit by examination, study abroad and the services of the University Career Development Center.

The Career Development Center administers and interprets tests that measure individual ability, interest, and achievement, and thus may aid also in counseling students about the field of study in which they are most likely to be effective and successful.

For questions regarding advising, contact the Fulbright College Advising Center at 575-3307 or visit online at www.uark.edu/~fcac/.

**DEGREES OFFERED**

For a complete list of departmental majors, minors, concentrations, options and coursework, see the chart on pages 116 and 117.

The J. William Fulbright College of Arts and Sciences offers four-year curricula leading to the degrees of Bachelor of Arts (B.A.), Bachelor of Science (B.S.), Bachelor of Fine Arts (B.F.A.), Bachelor of Music (B.M.), and Bachelor of Social Work (B.S.W.). Each candidate for the B.A. and B.S. degrees selects a major field for specialized study. In addition to usual departmental majors there are interdepartmental majors and special programs for students preparing for professional degrees in law, medicine, dentistry, and teaching.

**MAJORS AND MINORS**

**Majors**

- American Studies
- Anthropology
- Art
- Biology
- Chemistry
- Classical Studies
- Communication
- Computer Science (B.A.)
- Criminal Justice
- Drama
- Earth Science
- Economics
- English
- French
- Geography
- Geology
- German
- History
- International Relations
- Journalism
- Mathematics
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Public Administration
- Social Work
- Sociology
- Spanish

**Second (or dependent) Majors**

- African American Studies
- European Studies
- Latin American Studies
- Middle East Studies
- Russian Studies

* A second (or dependent) major must be earned in a degree program in which the first major is one authorized to be given independently.

**Minors**

Academic minors in approved degree programs are options available to students in the Fulbright College of Arts and Sciences. The minor must be in a field other than the major, and students must notify the department of their intention to minor. An academic minor ordinarily consists of 15-18 hours. Specific requirements for the minor are given in the section entitled Departments, Majors, and Minors. Minors may be chosen from the following fields:

- African-American Studies
- Anthropology
- Arabic
- Art
- Art History
- Biology
- Business
- Chemistry
- Classical Studies
- Communication
- Computer Science
- Drama
- Economics
- English
- European Studies
- French
- Gender Studies
- Geography
- Geology
- German
- Historic Preservation
- History
- Japanese
- Latin American Studies
- Legal Studies
- Mathematics
- Medieval and Renaissance Studies
- Middle East Studies
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Religious Studies
- Social Work
- Sociology
- Spanish
- Statistics

Fulbright College also recognizes all official minors offered by sister colleges at the University of Arkansas. Students wishing to have such minors made a part of their transcript must notify the Fulbright College dean's office (MAIN 525) when degree application is made.

**OTHER PROGRAMS**

**Undergraduate Preparation for Professional Programs**

The Fulbright College of Arts and Sciences offers courses that are required for the study of law, medicine, dentistry, teaching, pharmacy, social work, and other professions. It provides supporting programs in the humanities, fine arts, social sciences, and natural sciences for students who are enrolled for professional programs in other undergraduate colleges on the campus and for those students who may plan to enter postgraduate professional programs in other colleges.

In some instances it may be possible for a student to plan the use of undergraduate courses so that the time required for completion of a postgraduate professional program may be shortened by as much as one full year. Currently, this may be done for the Master of Social Work program. For information and advice concerning this program see the Director or Associate Director of the School of Social Work.
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* Indicates majors that are "second," "dependent," or "combined." See each program for more details.
Secondary Education Requirements for Fulbright College Students (except in Art and Music)

1. All students must complete course requirements for entrance into the M.A.T. degree program. (All course requirements are subject to change. Students must meet current requirements at time of application for graduation.)

   a) CIED 4131, Practicum in Secondary Education
   b) Demonstration of computer competencies in a portfolio or:
      ETec 2001, Educational Technology and ETec 2002L, Educational Technology Lab
   c) CIED 4023, Teaching in Inclusive Secondary Settings (taken in the first summer session before entering the M.A.T. program)

2. Complete subject area requirements. (See below for specific subject area requirements.)

Drama/Speech

Complete a BA degree with a major in Communications or Drama. Communication majors must take the following Drama courses:
DRAM 1223 Introduction to Dramatic Art
DRAM 1683 Acting I
DRAM 2683 Acting II
DRAM 1313 and 1311L, Stage Technology I
DRAM 1323 and 1321L, Stage Technology II
DRAM 3653 Directing I

Drama majors must take the following Communication courses:
COMM 2373 Introduction to Debate

In other pre-professional programs, the distribution of credits applied toward a degree in Fulbright College may require the consignment of a considerable portion of the available electives to prerequisite courses and to courses that are in direct support of the undergraduate major area.

Interested students should contact the appropriate advisers early in the planning of such programs.

Teacher Education Programs: Acceptance in a teacher education program is governed by regulations approved by the University Teacher Education Board for Initial Licensure and administered by the College of Education and Health Professions and the Fulbright College of Arts and Sciences. Students in Fulbright College can pursue teacher licensure in the following areas: Art, Drama/Speech, English, Foreign Languages, Mathematics, Music, Life/Earth Science, Physical/Earth Science, or Social Studies. Students in all subject areas, except Art and Music, must meet the entrance requirements for the Master of Arts in Teaching (M.A.T.) degree, which include completion of a baccalaureate degree in the subject area, completion of additional licensure requirements (if any) in subject area, completion of M.A.T. course requirements and a minimum 2.70 grade point average. See below for specific requirements in each subject area. Students intending to obtain teacher licensure in Art or Music will follow the education requirements set forth in the Bachelor of Fine Arts degree, which include completion of a baccalaureate degree in the subject area, completion of additional licensure requirements (if any) in subject area, and Health Professions, Peabody Hall, Room 8, and the Fulbright College advising center, Old Main, Room 518.

English

Complete a BA degree with a major in English. Students are advised to obtain an additional licensure area.

Foreign Languages

Complete a BA degree in French, German or Spanish. Pass Oral Proficiency Examination in French, German, Russian, and Spanish equivalent to Mid-Intermediate Rating on the ACTFL/ETS test (taken at end of senior year).

Life/Earth Science

Complete a BA or BS degree with a major in biology. The following Earth Science courses are recommended for preparation of Praxis II content area:
GEOL 1113/1111L
GEOL 1133/1131L
ASTR 2003/2001L

Mathematics

Complete a BA or BS in mathematics.

Physical/Earth Science

Complete a BA or BS degree with a major in chemistry or physics. The following Earth Science courses are recommended for preparation of Praxis II content area:
GEOL 1113/1111L
GEOL 1133/1131L
ASTR 2003/2001L

Social Studies

Complete a BA degree in anthropology, economics, history, geography, political science, psychology, or sociology.

Complete these additional course requirements:
ECON 2143, Basic Economics or any other 3 hour credit ECON course
HIST 1013 Institutions and Ideas of World Civilizations I or HIST 2003 History of the American People to 1877
HIST 1113 Institutions and Ideas of Western Civilization I or HIST 2013 History of the American People, 1877 to Present
HIST 1003 Institutions and Ideas of Western Civilization II or HIST 3383 Arkansas in the Nation or HIST 3383 Arkansas and the Southwest
HIST 3383 can also be taken by correspondence through the Department of Independent Study, Division of Continuing Education, or it can be taken Web-based through the same office. Call them at (479) 575-3647 for further information if you are interested in the Web-based class.

Note: HIST 3383 can also be taken by correspondence through the Department of Independent Study, Division of Continuing Education, or it can be taken Web-based through the same office. Call them at (479) 575-3647 for further information if you are interested in the Web-based class.

ECON 2143, Basic Economics or any other 3 hour credit ECON course

Note: HIST 3383 can also be taken by correspondence through the Department of Independent Study, Division of Continuing Education, or it can be taken Web-based through the same office. Call them at (479) 575-3647 for further information if you are interested in the Web-based class.

HIST 1003 Institutions and Ideas of Western Civilization I or HIST 1113 Institutions and Ideas of World Civilizations I
HIST 1013 Institutions and Ideas of Western Civilization II or HIST 1123 Institutions and Ideas of World Civilizations II
HIST 2003 History of the American People to 1877
HIST 2013 History of the American People, 1877 to Present
PLSC 2003 American National Government
SOCL 2013 General Sociology
GEOG 1123 Human Geography
Two additional courses in U.S. history
Two additional courses in world and/or regional history
One additional course in political science
Two courses in economics (ECON 2143 counts as one)
One additional course in geography
Students are advised to obtain an additional licensure area.

Pre-Law Program: While there is no prescribed pre-law curriculum, Fulbright College offers a minor in legal studies administered through the department of political science. Students considering a career in law may
consult the UA School of Law Catalog or the Fulbright College Advising Center for information concerning certain categories of courses that may be helpful to the study and practice of law. Students uncertain about a major degree program should contact the Fulbright Advising Center.

A baccalaureate degree is required for admission to the UA School of Law, except for those students in the Fulbright College of Arts and Sciences who are admitted to the special six-year program referred to in the paragraph immediately following. All applicants for admission are required to take the Law School Admission Test. (See page 283.)

The University of Arkansas School of Law at Fayetteville and the Fullbright College of Arts and Sciences jointly administer a six-year program whereby highly qualified students may earn both the bachelor’s degree and the Juris Doctor degree. Any student enrolled in the J. William Fulbright College of Arts and Sciences during a spring semester shall be permitted to matriculate in the School of Law in the following fall semester if the admission complies with Section 3 of Part A of the law school’s admission policies and if the student meets the following conditions:

1. At least 30 consecutive hours of course work in Fullbright College,
2. At least 94 hours credited toward a bachelor’s degree by Fullbright College,
3. Completion of Fullbright College’s requirements for a major in connection with the bachelor’s degree,
4. A cumulative grade-point average in all college or University course work of at least 3.50, without grade renewal,
5. An LSAT score of at least 159.

A student may substitute law school course work for the remaining total hours required for the bachelor’s degree from Fullbright College. Formal application for the degree should be made to the Registrar. Information about the program may be obtained in the dean’s office or the Fullbright Advising Center.

**Health Related Professions**

**Pre-Professional Programs:**

- Chiropractic
- Medical
- Pharmacy
- Dental
- Optometry
- Podiatry

**Allied Health Pre-Professional Programs:**

- Cytotechnology
- Occupational Therapy
- Dental Hygiene
- Ophthalmic Medical Technology
- Physical Therapy
- Diagnostic Medical Sonography
- Medical Technology
- Radiologic Technology
- Respiratory Care
- Nuclear Medicine Technology

For additional information about these and other allied health professions, contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307, or e-mail: fac@uark.edu, Web site: http://www.uark.edu/~fac/. All pre-professional and allied health students are advised to research the school(s) where they intend to complete their professional or allied health program.

**General:** Each of the above areas involves the completion of a minimum number of semester hours and certain required courses. Many of the specific course requirements are common to all programs, and it is in the student’s best interest to complete these requirements as early as possible. Careful scheduling is essential to ensure that courses are taken in proper sequence.

**Pre-Chiropractic Program:** Students entering the pre-chiropractic program should determine the specific admission requirements for the school(s) of their choice at an early date. Most chiropractic colleges require a minimum of 90 hours of college credit to include the following: 6 hours of English, 12 hours chemistry (with a minimum of 3 hours inorganic chemistry and at least 6 hours organic chemistry and/or biochemistry), 8 hours of biology, 3 hours of psychology, 15 hours of social science or humanities, and 8 hours of physics.

All students planning careers in chiropractic should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

**Pre-Dental Program:** All dental schools require a minimum of three years of college work, and most schools give preference to applicants who have completed a baccalaureate degree. The minimum requirements for admission to most dental schools can be met at the University of Arkansas by completing the following courses:

- ENGL 1013, ENGL 1023 or equivalent composition course.
- BIOL 1543/1541L and at least 8 additional hours of biology (BIOL 1603/1601L is recommended)
- PHYS 2033/2031L, PHYS 2033/2031L, and CHEM 1103/1101L, CHEM 1123/1121L, CHEM 3603/3601L, CHEM 3613/3611L (CHEM 3813 Biochemistry is recommended or required by some schools).

CLEP and AP credit is not accepted. Dental schools have a variety of additional course requirements and pre-dental students should check each school’s Web site.

Mathematics is not a general requirement, but students are expected to have a background equivalent to college algebra and trigonometry.

Students who complete a minimum of 90 hours of work may qualify for the combined degree program provided that they complete the requirements for graduation in Fullbright College of Arts and Sciences.

All dental schools require the Dental Admissions Test. It is suggested that applicants take the DAT one year prior to the time they plan to enter dental school. A student planning a career in dentistry should contact Dr. J.C. Rose, Department of Anthropology, 479-575-2508.

**Pre-Medical Program:** Medical schools in general require a minimum of 90 semester hours of college credit exclusive of military science and physical education, and most recommend that the student complete a baccalaureate degree. All medical schools have specific course requirements, and the student should determine those requirements for the school or schools of his or her choice. The minimum requirements for most medical schools can be met by completion of the following courses:

- ENGL 1013, ENGL 1023, or equivalent composition course.
- BIOL 1543/1541L, plus one other course in biological sciences, or equivalent
- CHEM 1103/1101L, CHEM 1123/1121L, CHEM 3603/3601L, CHEM 3613/3611L
- MATH 1203 and MATH 1213, or MATH 2554
- PHYS 2033/2031L, or PHYS 2054 and PHYS 2074.

CLEP credit is not accepted.

Additional courses are recommended. Special opportunities and experiences are available to pre-medical students through the Liebolt Endowment.

Pre-medical students are encouraged to complete the requirements for the B.A. or B.S. degree. As part of these requirements the student must choose a major, but the choice of a major has no direct bearing upon admission to medical school and should reflect the particular interests of the student. If a student is admitted to a medical school prior to completion of the baccalaureate degree requirements, he/she may wish to take advantage of the combined degree program in medical science. If that program is elected, the student should complete all of the basic University and college requirements for graduation during residence on the UA campus.

Most medical schools require the Medical College Admissions Test (MCAT), which is administered at several testing sites in Arkansas on specific dates from January to September each year. The MCAT normally should be taken in the spring preceding application to medical school. Admission to medical school is highly competitive, and a good grade-point average is demanded. A grade-point average of 3.30 is the minimum likely to receive favorable consideration. A
grade of “D” in any course required by the medical school is not considered satisfactory. Advising is available through Dr. Neil Allison, Department of Chemistry and Biochemistry, 479-575-5179, and Dr. Jeanne McClachlin, Department of Biological Sciences, 479-575-5348. Dr. Allison serves as chair of the University of Arkansas Pre-medical Advisory Committee. For information, visit the University of Arkansas pre-medical Web site at http://premed.uark.edu/

Pre-Optometry Program: Admission requirements to schools and colleges of optometry are not uniform. Typically they include courses in English, mathematics, physics, chemistry, and biology. Some colleges and schools have specific requirements in psychology, social sciences, literature, philosophy, and foreign languages. Students in this program should determine the specific requirements of the school or college they wish to attend at an early date and plan their program of study accordingly. Details concerning the program are available from the Fulbright College Advising Center, 479-575-3307, 518 Old Main.

Pre-Pharmacy Program: Entrance requirements for pharmacy schools vary; therefore, students should research the schools of their choice to determine specific prerequisite course work.

The University of Arkansas for Medical Sciences College of Pharmacy requires 69 hours of pre-professional courses to include: 4 hours of calculus, 9 hours of English/Communication, 16 hours of chemistry, 12 hours of biology, 4 hours of physics, 3 hours of economics, 6 hours of critical thinking/problem solving, and 15 hours of humanities.

Students are advised to begin taking humanities electives during the second semester of their freshman year. Since pharmacy schools have many more applicants than they can accept, the student is urged to earn a grade-point average much higher than the minimum of 2.00.

Grades are a major consideration when admission committees evaluate a student’s qualifications for acceptance. The University of Arkansas College of Pharmacy and other pharmacy schools also require applicants to take the Pharmacy College Admission Test (PCAT). This may be taken in November or February. The pre-pharmacy adviser for the University of Arkansas is Lorraine Brewer, Department of Chemistry and Biochemistry, 479-575-3103.

Pre-Podiatry Program: To meet entrance requirements for colleges of podiatry, an applicant must have completed a minimum of three years at an accredited undergraduate institution; however, most entering students have completed a baccalaureate degree. Courses required for admission vary with the college, and a student should inquire early in the academic program about the courses required for a particular institution. In general, a student is advised to include at least 8 hours of general chemistry, 8 hours of organic chemistry, 8 hours of physics, 8 hours of biology, and 6 hours of English. Additional information concerning requirements for specific colleges of podiatry may be obtained from The Fulbright College Advising Center, MAIN 518, 479-575-3307.

Pre-Cytotechnology Program: Requirements for the University of Arkansas for Medical Sciences College of Health Related Professions program in cytotechnology include 20 hours of biology, 8 hours of chemistry, 3 hours of college algebra, 6 hours English composition, 6 hours of Western civilization, 3 hours in American history or national government, 3 hours in the humanities, 6 hours in the social sciences, 3 hours of communication, 3 hours fine arts, and 24 hours of electives for a total of 85 hours. At least 5 of these elective hours must be upper-level.

All students planning careers in cytotechnology should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

Pre-Dental Hygiene Program: Students entering the pre-dental hygiene program should determine the specific requirements for admission to the schools of their choice at an early date. Entrance requirements for the dental hygiene program at the University of Arkansas for Medical Sciences College of Health Related Professions consist of a minimum of 37 hours of college credit to include the following courses: 4 hours of biological science, 4 hours of microbiology, 4 to 5 hours of chemistry, 3 hours of mathematics, 6 hours of English, 3 hours of speech communication, 3 hours of sociology, 3 hours of psychology, 3 hours of computer science, and 3 hours of U.S. history or U.S. government. Students wishing to earn the B.S. degree in dental hygiene through the College of Health Related Professions must include: 6 hours of Western civilization, 3 hours of fine arts, 3 hours of humanities, and 12 hours of upper-level electives.

All students planning careers in dental hygiene should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

Pre-Diagnostic Medical Sonography Program: Students entering this program should determine the specific admission requirements for the school of their choice at an early date. The admission requirements for the diagnostic medical sonography program at the University of Arkansas for Medical Sciences College of Health Related Professions consist of a minimum of 58 semester hours to include: 6 hours of English, 4 hours of human anatomy, 4 hours of human physiology, 4 hours of introductory physics, 3 hours of communication (speech), 3 hours of college algebra, 3 hours of U.S. history, 6 hours of history of civilization, 3 hours of sociology, 3 hours of psychology, 3 hours of fine arts, 3 hours of humanities, 3 hours of computer fundamentals/applications, and 10 hours of electives.

All students planning careers in diagnostic medical sonography should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

Pre-Medical Technology Program: Students entering this program should determine the specific admission requirements for the school of their choice at an early date. The admission requirements for Medical Technology at the University of Arkansas for Medical Sciences College of Health Related Professions are as follows:

A minimum of 68 semester hours to include 6 hours of English, 8 hours of general chemistry, 16 hours of biology (4 hours of introductory biology, 4 hours of microbiology, 4 hours of human physics, and 4 hours of biology electives), 3 hours of communication (speech), 3 hours of fine arts, 6 hours of Western civilization, 3 hours of college algebra, 3 hours of U.S. history, 6 hours of other social sciences (two different fields), 3 hours of humanities, and 11 hours of electives.

All students planning careers in medical technology should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

Pre-Nuclear Medicine Imaging Sciences Program: Students who wish to attend a program in nuclear medicine technology should determine the specific requirements for admission to the schools of their choice. Admission requirements for the University of Arkansas for Medical Sciences, College of Health Related Professions, include completion of the courses listed below or their equivalents plus enough electives to bring the total to 85 hours.

Course requirements for admission are as follows: 12 hours of biology to include anatomy and physiology, 8 hours of general chemistry, 8 hours of general physics, 3 hours of college algebra or higher-level mathematics, 6 hours of English, 3 hours of speech communication, 3 hours of fine arts, 6 hours of Western civilization, 3 hours of U.S. history, 6 hours of social sciences, 3 hours of humanities, and at least 6 hours of upper-level credits. It is recommended that elective courses be in math and science, technical writing, computers, and health sciences.

All students planning careers in nuclear medicine technology should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

Pre-Occupational Therapy Program: Students entering the pre-occupational therapy program should determine the specific requirements for admission to the schools of their choice at an early date. The admission requirements for occupational therapy at the University of Central Arkansas consist of a minimum of 72 hours of college credit to include the following
courses: 6 hours of English, 3 hours of world literature, 3 hours of fine arts, 3 hours of health education, 3 hours of US history or government, 3 hours of humanities, 3 hours of mathematics, 2 hours of medical terminology, 6 hours of Western civilization, 3 hours of communication (speech), 15 hours of biology (must include a course in both anatomy and physiology), 4-5 hours of chemistry, 4 hours of physics, 6 hours of psychology (including 3 hours of statistics), 3 hours of sociology, an additional 3 hours of either sociology or psychology electives, and 3 hours of developmental psychology (HESC 1403 Life Span Development can meet this requirement).

All students planning careers in occupational therapy should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

**Pre-Ophthalmic Medical Technology Program:** Admission requirements for ophthalmic medical technology at the University of Arkansas for Medical Sciences College of Health Related Professions consist of a minimum of 55 credit hours to include: 4 hours of anatomy, 4 hours of physiology, 4 hours of microbiology, 8 hours of biology electives, 4 hours of physics, and 3 hours of college algebra or higher level mathematics. General education courses: 6 hours of English composition, 6 hours of history of civilization/world history, 3 hours of American history or national government, 6 hours of social science, 3 hours of speech communication, 3 hours of fine arts, and 3 hours of humanities.

All students planning careers in ophthalmic medical technology should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

**Pre-Physical Therapy Program:** Students planning to attend physical therapy school should determine the specific admission requirements for schools of their choice at an early date.

Admission requirements for the Doctor of Physical Therapy program at the University of Central Arkansas requires completion of a baccalaureate degree to include the following: 4 hours of general biology, 4 hours of human anatomy, 4 hours of human physiology, 4 hours of microbiology, 3 hours of introductory neuroscience (physiological psychology at the University of Arkansas), 4 hours of histology, 8 hours of chemistry, 8 hours of physics, 3 hours of computer literacy, 3 hours general psychology, 3 hours psychology elective, 3 hours of statistics, 2 hours of medical terminology, and 3 hours of technical writing.

Any student planning a career in physical therapy should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

**Pre-Radiologic Technology:** Students interested in radiologic technology should determine the specific admission requirements for the school of their choice at an early date. The admission requirements for the radiologic technology program at the University of Arkansas for Medical Sciences College of Health Related Professions consist of a minimum of 32 semester hours to include the following: 6 hours of English, 4 hours of human anatomy, 4 hours of human physiology, 3 hours of communication (speech), 3 hours of college algebra, 3 hours of U.S. history, 3 hours of sociology, 3 hours of psychology, and 3 hours of computer fundamentals/applications.

All students planning careers in radiologic technology should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

**Pre-Respiratory Care Program:** Students who wish to enter the B.S. Degree program in Cardio-Respiratory Care in the College of Health Related Professions at the University of Arkansas for Medical Sciences must satisfactorily complete the courses listed below. The applicant must also complete the Health Occupation Aptitude Exam (administered by the department) as part of the application procedure. The B.S. program is available in Texarkana and in Little Rock.

Prerequisite requirements consist of a minimum of 67 hours, including the following: 4 hours anatomy, 4 hours physiology, 4 hours microbiology, 4 hours chemistry, 4 hours physics, 3 hours computer fundamentals, 3 hours college algebra, 3 hours speech, 6 hours English composition, 3 hours American history or U.S. government, 6 hours history of Western civilization or world history, 3 hours fine arts, 3 hours humanities, 3 hours sociology, 3 hours psychology, and 11 hours electives.

All students planning careers in Respiratory Care should contact the Fulbright College Advising Center, 518 Old Main, 479-575-3307.

**Cooperative Education**

The Cooperative Education program is designed to offer students an opportunity to participate in a paid work experience directly related to their academic major. It resembles an internship, but includes a series of at least two such work experiences. The program also insists that at least minimal academic credit be awarded, thus ensuring that the work experience will be directly related to the student’s academic program. Cooperative Education offers advantages to students needing assistance in financing their education, and it offers the college a tangible way to demonstrate our conviction that although we do not stress vocational or professional training per se, there is nothing inimical between a liberal arts education and the world of work. Prerequisites include 45 credit hours, a cumulative GPA of 2.50, and consent of the academic coordinator. A maximum of 4 credit hours of ARSC 310 (Cooperative Education) may be applied toward the student’s degree.

Detailed information about Cooperative Education may be obtained from the Fulbright College Career Counselor, 518 Old Main, 479-575-3307, or from the Office of the Dean, Fulbright College, 525 Old Main.

**COLLEGE ADMISSION REQUIREMENTS**

Students seeking admission to the J. William Fulbright College of Arts and Sciences must meet the general requirements for admission to the University. In addition, students are expected to present two units (years) of a single modern foreign or classical language. Those unable to meet this standard will be expected to begin their collegiate foreign language study as soon as possible after matriculation. For these students, the first semester of language study will be considered to satisfy the admission deficiency and will not count toward the 124 hours required for graduation (although the course will appear as University credit, and the grade received will be computed in the grade-point average). For the students who meet the Fulbright College of Arts and Sciences admission requirements and continue with the same foreign language taken in high school, the first semester of language study will be considered remedial and will not count toward the 124 hours required for graduation (although the course will appear as University credit and the grade received will be computed in the grade-point average). Students transferring from other colleges at the University of Arkansas or from other institutions are expected to meet the same entrance standard.

**COLLEGE SCHOLARSHIPS**

Foremost among scholarships available in the J. William Fulbright College of Arts and Sciences is the Sturgis Fellowship. This scholarship enables Fulbright College to offer outstanding graduates of secondary and preparatory schools undergraduate fellowships valued at $50,000 for four collegiate years.

Continuing students may compete for the J. William Fulbright Prize for Distinction in the Liberal Arts. This scholarship carries a $1000 award.

Students studying in the humanities or classics may qualify for the J. William and Elizabeth W. Fulbright Scholarship for study abroad. This award is for students who are at least juniors and is intended to support a year of study abroad.

The Robin C. Anderson Scholarship is available to students who place in the top 10% of their class and who transfer to Fulbright College from an Arkansas community or junior college.
Freshman students who show outstanding promise may receive awards from the James Victor Spencer, Jr. Memorial Scholarship, and students with similar promise or records are eligible for the Marion A. Steele Memorial Scholarship.

In addition, students may compete for general scholarship monies, which are awarded, regardless of classification, to students with the highest grade-point averages. Application for these monies is made through the Office of the Dean, 525 Old Main. Students may obtain information and an application on the Web through Fulbright College of Arts and Sciences Scholarships and Fellowships at http://www.uark.edu/~arsc/students/scholarships.html.

Other scholarships are available from the departments of Fulbright College. Information may be sought from the departmental chairperson of the student’s major.

STUDENT ORGANIZATIONS

There are many general-interest societies and organizations to which students may belong, and nearly every department of the University maintains an honor society through which high scholarship is rewarded. Students in Fulbright College may aspire to membership in the following organizations:
- Alpha Chi Sigma (chemistry)
- Alpha Epsilon Omega (drama)
- American Chemical Society (chemistry)
- Delta Phi Alpha (German)
- Eta Sigma Phi (Greek and Latin)
- Gamma Theta Upsilon (geography)
- Kappa Kappa Psi (band, men)
- Kappa Tau Alpha (journalism)
- Lambda Alpha (anthropology)
- Lambda Pi Eta (communication)
- Lambda Tau (writers)
- Omicron Delta Epsilon (Economics)
- Phi Alpha Theta (history)
- Phi Beta Delta (international scholarship)
- Phi Beta Kappa (arts and sciences)
- Phi Kappa Phi
- Phi Mu Alpha (music, men)
- Pi Delta Phi (French)
- Pi Kappa Delta (forensics)
- Pi Mu Epsilon (mathematics)
- Pi Sigma Alpha (political science)
- Psi Chi (psychology)
- Sigma Alpha Iota (music, women)
- Sigma Delta Pi (Spanish)
- Sigma Gamma Epsilon (geology)
- Sigma Pi Sigma (physics)
- Tau Beta Sigma (band, women)

COLLEGE ACADEMIC REGULATIONS

Courses of study in the Fulbright College of Arts and Sciences are designed to give students the comprehensive view of society that the modern world requires. Students who enroll in Fulbright College, or who elect some of its courses, have an opportunity to gain a broad cultural education, which is a part of intelligent living and, at the same time, to prepare for professions or to acquire technical training in the sciences. The college has two major teaching functions: to provide basic general education in the arts and sciences necessary to all persons for effective participation in the complex world in which we live; and, second, to furnish the student an opportunity to specialize in the field of the student’s choice.

To implement the first of these aims and to furnish a broad base for the accomplishment of the second, the faculty of Fulbright College has adopted the requirements listed below for each degree.

Specific course requirements may be fulfilled in one of four ways:
1. Establishing credit in approved courses:
   a. by enrolling in and completing the required work in the course,
   b. by examination (credit will be entered as CR on a student's record as explained in Advanced-Standing Programs, page 47),
   c. by advanced achievement, i.e., by satisfactory completion of a more advanced course of a sequence. For example, students who earn a grade of “C” or better in a third-semester foreign language course may be granted credit for the second semester course upon recommendation of the Foreign Language Department and approval by the Dean of the college. (This does not apply to work taken by correspondence or in transfer.)
2. Gaining exemption by examination. Announced exemption examinations are routinely offered in several courses. Students may consult any department or the dean’s office concerning exemption examinations.
3. Advanced placement by examination. A student who is granted advanced placement may elect to substitute a more advanced course for the listed required course.
4. Transfer credit. Students presenting transfer credit in lieu of stated requirements may be asked to present official course descriptions, etc. Transfer work with grades of “D” or “F” will not be accepted.

DEGREE COMPLETION PROGRAM POLICY

Fulbright College of Arts and Sciences Graduation Requirements

In addition to the specific course requirements for the degree plan and major, be aware that there are general graduation requirements that every student in Fulbright College must complete.

1. Minimum Total Semester Hour Requirement
   - B.A., B.M., B.S. and B.S.W. Degrees: 124 hours
   - B.E.A.: 128 hours

2. Residency Requirement
   a) 30 Hour Rule (University Requirement)
   The full senior year must be completed in residence except that a senior who has already met the minimum residency requirement will be permitted to earn not more than 12 of the last 30 hours in extension or correspondence courses or in residence at another accredited institution granting the baccalaureate degree. No more than six of these 12 hours may be correspondence courses. The minimum residence requirement is 36 weeks and 30 semester hours. Residency for the senior year is defined as a period during which the student must be enrolled in courses offered on the campus in Fayetteville. This is intended to provide adequate contact with the University and its faculty for each student who is awarded a degree. Colleges and departments have the authority to prescribe residence requirements that exceed those described here. Fulbright College requires that no fewer than 30 hours of credit must be in courses offered by the college.
b) 24 Hour Rule (College Requirement)
A student graduating from Fulbright College must have completed at least 24 hours of 3000 and 4000 level courses from departments in Fulbright College.

3. 40-Hour Rule
Students must present for degree credit at least 40 hours of work in courses numbered 3000 and above. Included in these 40 hours can be courses numbered 2000 if each has a specific course designated as a prerequisite. (The following courses are excluded: MILS 2001 and 2011, AERO 2001 and 2011, and foreign language courses numbered 2003 and 2013.) These courses may be taken from other colleges or universities. However, do not forget the college residency requirement, specifically the 24 hour rule.

4. Grade-Point Average
Students graduating from Fulbright College must have a minimum cumulative GPA of 2.00.

5. “D”- Rule
If a student has grades of “D” in more than 25 percent of the hours presented for graduation credit, she/he will not be allowed to graduate.

6. Eight Hour Rule
Students may submit no more than eight semester credit hours from the following list of course alpha codes. These may be used for degree credit only with the specific recommendation of the adviser.
AERO Aerospace Studies*
AGED Agricultural and Extension Education
DEAC Dance Education Activity*
ETEC Educational Technology
EXED Extension Education
HLSC Health Science
ITED Industrial/Technical Education
MILS Military Science*
PEAC Physical Education Activity*
PHED Physical Education
RECR Recreation
UNIV University
VOED Vocational Education
*No more than four of the eight hours may be applied from AERO, MILS, PEAC, or DEAC (combined). See page 124 #5

7. 68-Hour Rule
Students who transfer into the University may present for degree credit no more than 68 hours of lower division course work (1000 and 2000 level).

8. Writing Requirement
Students graduating from Fulbright College must write a research/analytical paper for at least one upper-division course in his or her major. Each department has determined its own procedures for certifying completion of this requirement. Questions should be referred to the departmental chairperson. A student may choose to write a senior thesis in a major area of study. The thesis may be accorded up to six hours of credit. Defense of the thesis before a committee is required. Satisfactory completion of an honors project or a senior thesis may be submitted to meet the college writing requirement.

Questions concerning fulfilling the requirements should be referred to the student’s adviser or to the dean's office, which will maintain current lists of approved courses, experimental offerings approved to fulfill requirements for a specified period of time, examination schedules, and other options available to the student.

Fullbright College Seminar Scholar: A student who has earned at least 50 percent of his or her college credits at the University of Arkansas and has maintained a grade-point average of at least 3.80 through the semester preceding graduation shall earn the distinction of “Fulbright College Senior Scholar.” In addition to completing one of the sets of degree requirements listed below, a student must also complete the University Requirements for Graduation, including the University Core requirements (see page 40).

DEGREE REQUIREMENTS

Bachelor of Arts and Bachelor of Social Work Hours
1. A total of 124 semester hours.
2. University Core:
   - ENGL 1013, ENGL 1023, Composition I, II 6
   - Advanced Composition Requirement (see page 41) 0-3
   - HIST 2003, HIST 2013, or PLSC 2003 (PLSC 2003 required for BSW Social Work majors) 3
3. College Requirements
   - Fine Arts: six hours to include at least two different arts to be selected from the following nine courses:
     ARTS 1003 or ARHS 1003 (except for art majors)
     DRAM 1003 (except for drama majors)
     COMM 1003
     MLIT 1003
     DANC 1003
     ARCH 1003 or LARC 1003
     HUMN 1003
   - Foreign language (Depending upon placement) 0-12
     Students must demonstrate proficiency in a single modern or classical language other than English, usually by completing a sequence of four courses (1003, 1013, 2003, 2013). The first semester of foreign language study (1003) is normally considered remedial and, thus, does not apply toward the 124 hours needed for graduation. Students meeting the normal admission standard (two years of one foreign language in high school) may expect to satisfy this requirement with fewer courses, depending upon placement. In cases of unusually thorough preparation, or in the case of international students, exemption may be sought from the Department of Foreign Languages.
   - PHIL 2003 or PHIL 2103
   - MATH 1203 and one of the following four courses: 3-7
     MATH 2043, MATH 2053, or MATH 2183, MATH 2554
   - Natural sciences with laboratory 12
     At least 4 hours must be biological science, and at least 4 hours must be physical science. It is strongly recommended that students take an 8-hour sequence in one of the natural sciences, to be selected from the following:
     CHEM 1103/1101L, CHEM 1123/1121L
     GEOL 1113/1111L, GEOL 1133/1131L, or
     PHYS 2013/2011L, PHYS 2033/2031L
     Four to eight hours in the biological sciences may be selected from the following courses:
     ANTH 1013/1011L
     BIOL 1543/1541L
     (ANTH 1013/1011L or BIOL 1543/1541L required for BSW Social Work majors)
     BIOL 1613/1611L
     BIOL 2013/2011L or BIOL 1603/1601L
Four to eight hours in the physical sciences may be selected from:
ASTR 2003/2001L
CHEM 1053/1051L
CHEM 1103/1101L
CHEM 1123/1121L
GEOL 1113/1111L
GEOL 1133/1131L
PHYS 1023/1021L
PHYS 2013/2011L
PHYS 2033/2031L
PHYS 2054
PHYS 2074
Social science, to be selected from:
ANTH 1023
ECON 2013, ECON 2143
GEOG 2003
PLSC 2013
PSYC 2003
SOCI 2013, SOCI 2033

6. Unless exceptions are granted at the time of admission to the University of Arkansas, transfer work in which grades of “D” or “F” were earned will not be allowed toward credit for graduation. For more information, see the Admissions chapter in this catalog.

7. If the student’s degree program is strengthened by course work in the following departments, as many as eight hours may be applied toward the degree with the consent of the adviser:
AERO  
HLSC  
PHED
AGED  
ITED  
RECR
DEAC  
MILS  
UNIV
EXED  
PEAC  
VOED
ETEC

No more than four of the eight hours may be applied from AERO, MILS, PEAC, or DEAC, unless a student completes an ROTC program and receives a commission. Upon receipt of notification in the dean’s office of completion of ROTC program and receipt of commission, up to 16 hours of AERO or MILS may be applied toward the student’s degree.

8. Each student graduating from Fulbright College must write a research/analytical paper for at least one upper-division course in his or her major. Satisfactory completion of an honors project or a senior thesis may fulfill this requirement. Students should consult with their major adviser for departmental procedures in satisfying this requirement.

9. Course work taken to remove course deficiencies assigned at the time of admission or transfer will not be counted toward the degree. Similarly, courses considered to be remedial or developmental will not count toward the degree.

10. Those courses constituting the State Minimum Core of 35 hours for the University of Arkansas are set forth on page 40 of this catalog. These courses, or courses transferred with a grade of “C” or better from any other state institution in Arkansas, may be used in partial or full satisfaction of the Fulbright College general education core.

Bachelor of Science

1. A minimum of 124 semester hours. (Departments may require additional hours up to a total of 132.)
2. University Core:
   ENGL 1013, ENGL 1023, Composition I, II
   Advanced Composition Requirement (see page 41) 0-3
   HIST 2003, HIST 2013, OR PLSC 2003 3
3. College requirements:
   Foreign language (Depending upon placement)
   Students must demonstrate proficiency in a single modern or classical language other than English, usually by completing a sequence of three courses (1003, 1013, 2003). The first semester of foreign language study (1003) is normally considered remedial and, thus, does not apply toward the 124 hours needed for graduation. Students meeting the normal admission standard (two years of one foreign language in high school) may expect to satisfy this requirement with fewer courses, depending upon placement. In cases of unusually thorough preparation, or in the case of international students, exemption may be sought from the Department of Foreign Languages.
   World literature, foreign literature, philosophy
   (to be selected from PHIL 2003, PHIL 2103, PHIL 2203), fine arts (to be selected from at least two areas)
   HIST 1003, HIST 1013 or HIST 1113, HIST 1123 6
   Social sciences, to be selected from:
   ANTH 1023 3
   ECON 2013, ECON 2143 3
   GEOG 2003 3
   PSYC 2003 3
   SOCI 2013 3
22. Science and mathematics
   (to be determined by the department of major and to be selected from at least two departments other than the department of the major) 18
Bachelor of Fine Arts

1. A minimum of 128 semester hours.
2. University Core:
   - ENGL 1013, ENGL 1023, Composition I, II 6
   - Advanced Composition Requirement (see page 41) 0-3
   - HIST 2003 or 2013 or PLSC 2003 3
3. College requirements:
   - Natural Sciences 8
   - 4 hours to be selected from
     - PHYS 1023/1021L
     - CHEM 1053/1051L
     - ASTR 2003/2001L
     - GEOL 1113/1111L
   - 4 hours to be selected from
     - ANTH 1013/1011L
     - BIOL 1543/1541L
     - BIOL 1613/1611L or
     - BIOL 1603/1601L
   - Social sciences, to be selected from:
     - ANTH 1023 3
     - ECON 2013, ECON 2143
     - GEOG 2003
     - PSYC 2003
     - (PSYC 2003 is required for art education majors.)
     - SOCI 2013, SOCI 2033
4. Foreign language (Depending upon placement) 0-9
   - Students must demonstrate proficiency in a single modern or classical language other than English, usually by completing a sequence of three courses (1003, 1013, 2003). The first semester of foreign language study (1003) is normally considered remedial and, thus, does not apply toward the 124 hours needed for graduation. (For a major emphasis in voice, 9 hours additional is required in two different foreign languages appropriate to vocal repertoire. See Music Department requirements.)
   - WLIT 1113, World literature
   - MLIT 1003, Fine arts
   - Natural sciences 8
   - (to be selected from the courses listed under the natural science requirements for the B.A. degree 4 hours must be from biological science area, and 4 hours must be from physical science area)
   - HIST 1003, HIST 1013 or HIST 1113, HIST 1123 6
   - MATH 1203 3
   - Social sciences to be selected from:
     - ANTH 1023
     - ECON 2013, ECON 2143
     - GEOG 2003
     - PSYC 2003
     - SOCI 2013, SOCI 2033
4. Completion of the requirements for one of the majors described in the section entitled Majors and Courses of Instruction. Major fields of specialization may be chosen from the following: Applied Music (performance areas are specified under Courses of Instruction), Music Theory, Composition, Music Education.
5. Presentation of at least 40 semester hours in courses numbered 3000 and above or courses numbered 2000 with specific course prerequisites excluding MILS 2002, 2012, AERO 2011, 2021, and...
Combined Academic and Medical or Dental Degree

Fulbright College offers both the Bachelor of Arts and Bachelor of Science degrees in medical science or medical science (dentistry). A student may substitute the first year of regular medical or dental work taken in any standard, approved medical or dental school for 30 hours of the total required for the Bachelor of Arts degree or for 33 hours of the total required for the Bachelor of Science degree provided that the following requirements are met:

1. Completion of all core requirements for a B.A. or B.S. degree, as appropriate, prior to student’s entrance in medical or dental school.
2. Completion of a minimum of 12 hours of courses numbered above 3000 taken in Fulbright College.
3. Completion of at least 30 hours immediately prior to student’s entrance in medical or dental school in residence in Fulbright College.

Students interested in this degree should consult with their adviser or with the Fulbright College dean’s office early in their program. Formal application for the degree should be made to the Registrar.

This program is for highly qualified students with outstanding academic records who may be eligible for early admission to medical school or dental school programs. The year of a medical or dental study substitutes for the major in the B.A. or the B.S. degree program.

Additional Majors

Students fulfilling all requirements for the B.S., B.S.W., B.F.A. and B.M. degrees, including all core requirements and at least one major in these degree programs, may also claim an additional major in a humanistic discipline, social science, or interdisciplinary program associated with a BA degree. Upon completing all major requirements for that discipline, students wishing to have an additional major will not also receive a BA degree, but the additional major will be made part of their transcript. Students interested in this option should consult regularly with an academic adviser in the additional major and must notify the Fulbright College dean’s office (MAIN 525) when degree application is made.

Honors Program

To create an intellectual environment that challenges the best of students, the J. William Fulbright College of Arts and Sciences provides a comprehensive program of Honors Studies. This includes the Fulbright College Scholars Program, a four-year interdisciplinary honors program for students of superior academic ability or artistic talent, and the Departmental Honors Program, an honors program emphasizing directed independent study within a department or discipline of the college.

For admission into the Fulbright Honors Program, an incoming student must have a 3.5 cumulative grade-point average and complete and defend an honors thesis, and take 12 hours (which may include six hours of thesis) in Honors Studies. Information concerning these requirements is given within each department’s catalog listings.

To achieve these aims, the college faculty has developed and participates in the Fulbright College Scholars Program and the Departmental Honors Program.

Requirements for the Fulbright College Scholars Program: Credit or exemption for University Core in English composition, including ENGL 1103, ENGL 1023, and ENGL 2003, and in American history or American government, completion of the requirements for departmental honors in a department or study area of the college, including preparation and oral defense of an honors thesis, a cumulative grade-point average of 3.5, and completion of the honors core curriculum. Students who do not have at least a 3.5 GPA will not be allowed to graduate with honors.

Requirements for Departmental Honors: Specific academic requirements including course work, participation in departmental honors colloquia or seminars, and independent study projects are established by the faculty of the individual departments or study areas and are approved by the Honors Council. However, all departmental honors students must have a 3.5 cumulative grade-point average, complete and defend an honors thesis, and take 12 hours (which may include six hours of thesis) in Honors Studies. Information concerning these requirements is given within each department's catalog listings.

The following outlines the minimum academic requirements of the honors core curriculum for the B.A., B.S., B.M., and B.F.A. degree programs.

Honors Core Curriculum

<table>
<thead>
<tr>
<th>Bachelor of Arts or Bachelor of Social Work Degree</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities Option 1</td>
<td></td>
</tr>
<tr>
<td>World Civilization</td>
<td>6</td>
</tr>
<tr>
<td>HIST 1113H, HIST 1123H</td>
<td></td>
</tr>
<tr>
<td>World Literature</td>
<td>6</td>
</tr>
</tbody>
</table>

or *Summa Cum Laude* may be awarded to outstanding honors students by recommendation of the Fulbright College Honors Council.

To earn the distinction Fulbright College Scholar *Cum Laude* at graduation, a student must successfully complete the honors core curriculum, maintain a minimum grade-point average of 3.5, and satisfy requirements for departmental honors in the major field of study, including preparation and oral defense of an honors thesis. The Honors Council may award the higher distinctions of *Magna Cum Laude* or *Summa Cum Laude* based upon a student’s total academic performance, including the academic transcript, the quality of the scholarly activity pursued within the major field of study, and the breadth of college study as a whole.

To earn the distinction of Departmental Scholar *Cum Laude* at graduation, a student must successfully complete requirements prescribed by the major department, including an honors thesis and oral examination, maintain a minimum grade-point average of 3.5, and take 12 hours (which may include six hours of thesis) in Honors Studies. If a student demonstrates superior academic performance or an exceptionally high level of scholarly activity, the Honors Council may award the distinction of *Magna Cum Laude*. In exceptional instances where truly outstanding work within the major field is coupled with the superior understanding of its relationship to the college work as a whole, the distinction *Summa Cum Laude* may be awarded.

For more information about Honors Studies within Fulbright College, visit the web site at www.uark.edu/honors.

Degrees with Honors

The J. William Fulbright College of Arts and Sciences is dedicated to providing students a liberal education in the arts, humanities, and sciences. Such an education should be soundly based, innovative, and enriched by a creative faculty. This is especially true for students with superior academic ability or artistic talent. To achieve these aims, the college faculty has developed and participates in the Fulbright College Scholars Program and the Departmental Honors Program.

Foreign language courses numbered 2003 and 2013. At least 24 of the 40 hours must be in courses numbered above 3000 and taken in Fulbright College. See also College Requirements on page 122.

6. See item #6, page 124.
7. See item #7, page 124.
8. See item #8, page 124.
9. See item #9, page 124.
10. See item #10, page 124.
Bachelor of Science Degree

**Humanities Option 1**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>World Civilization</td>
</tr>
<tr>
<td>6</td>
<td>Fine Arts, World Literature, Philosophy</td>
</tr>
</tbody>
</table>

**Humanities Option 2**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Honors Roots of Culture</td>
</tr>
<tr>
<td>3</td>
<td>Philosophy</td>
</tr>
<tr>
<td>6</td>
<td>Fine Arts</td>
</tr>
</tbody>
</table>

**Students pursuing either option must also complete the following:**

| Social Science | 3 |
| Select from the following: |  |
| ANTH 1023H, ECON 2013H, | |
| ECON 2023H, ECON 2013 and ECON 2023, | |
| PSYC 2003H, SOCI 2013H | |
| (PSYC 2003H and SOCI 2013H required for BSW Social Work majors) | |

| Colloquia in Social Sciences | 6 |
| Must be selected from two different areas of social sciences. | |
| Course offerings vary each semester. | |
| Foreign Language: (depending upon placement) | 0-12 |
| See your adviser. Students must demonstrate proficiency in a single modern or classical language other than English, usually by completing a sequence of four courses (1003, 1013, 2003, 2013). See Fulbright College Admission Requirements (page 119). Students meeting the normal admission standard (two years of high school language) may expect to satisfy this requirement with fewer courses, depending upon placement. In cases of unusually thorough preparation, or in the case of international students, exemption may be sought from the department of foreign languages. | |

| Natural Science and Mathematics: | 12-16 |
| Twelve hours of honors credit, with a minimum of eight in the laboratory sciences. See adviser for specific science course listing. | |
| (BIOL 1543/1541M or ANTH 1013/1011M required for BSW Social Work majors.) | |
| Additionally, Fulbright Scholars must fulfill the math requirement of MATH 2043 or MATH 2053 or MATH 2183 or MATH 2554. Although not required as an honors course, MATH 2554 may, when taken in honors sections, satisfy up to four hours of the required 12 hours of honors credit in the mathematical and natural sciences. | |
| Colloquium in Natural Science or Math | 3 |
| To be selected in an area outside the student's departmental major. Course offerings vary each semester. | |

**Bachelor of Science Degree**

**Humanities Option 1**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>World Civilization</td>
</tr>
<tr>
<td>6</td>
<td>Fine Arts, World Literature, Philosophy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities Option 2</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honors Roots of Culture</td>
<td>16</td>
</tr>
<tr>
<td>Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>6</td>
</tr>
</tbody>
</table>

| Students pursuing either option must also complete the following: |  |
| Social Science | 3 |
| Select from the following: |  |
| ANTH 1023H, ECON 2013H, | |
| ECON 2023H, ECON 2013 and ECON 2023, | |
| PSYC 2003H, SOCI 2013H | |
| (PSYC 2003H and SOCI 2013H required for BSW Social Work majors) | |

| Colloquia in Social Sciences | 6 |
| Must be selected from two different areas of social sciences. | |
| Course offerings vary each semester. | |
| Foreign Language: (depending upon placement) | 0-12 |
| See your adviser. Students must demonstrate proficiency in a single modern or classical language other than English, usually by completing a sequence of three courses (1003, 1013, 2003). Students meeting the normal admission standard (two years of high school language) may expect to satisfy this requirement with fewer courses, depending upon placement. In cases of unusually thorough preparation, or in the case of international students, exemption may be sought from the department of foreign languages. | |

| Natural Science and Mathematics: | 12-16 |
| Twelve hours of honors credit, with a minimum of eight in the laboratory sciences. See adviser for specific science course listing. | |
| (BIOL 1543/1541M or ANTH 1013/1011M required for BSW Social Work majors.) | |
| Additionally, Fulbright Scholars must fulfill the math requirement of MATH 2043 or MATH 2053 or MATH 2183 or MATH 2554. Although not required as an honors course, MATH 2554 may, when taken in honors sections, satisfy up to four hours of the required 12 hours of honors credit in the mathematical and natural sciences. | |
| Colloquium in Natural Science or Math | 3 |
| To be selected in an area outside the student's departmental major. Course offerings vary each semester. | |
Bachelor of Music Degree

**Humanities Option 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Civilization</td>
<td>6</td>
</tr>
<tr>
<td>HIST 113H, HIST 1123H</td>
<td></td>
</tr>
<tr>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>WLIT 1113H</td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>MLIT 1003H</td>
<td></td>
</tr>
<tr>
<td>Colloquium in Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

Course offerings vary each semester.

**Humanities Option 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMN 1114H, HUMN 1124H, HUMN 2114H</td>
<td>12</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>MLIT 1003H</td>
<td></td>
</tr>
<tr>
<td>Colloquium in Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

Students pursuing Humanities Option 2 who complete the fourth semester of Honors Roots Culture (HUMN 2124H) will receive a 3-hour waiver for the Humanities Colloquium requirement. Otherwise, they must choose course work from the humanities colloquia course listing. Course offerings vary each semester.

**Students pursuing either option must also complete the following:**

- **Foreign Language:** (depending upon placement) 0-9
- See your adviser.
- **Social Science** 3
- Select from the following:
  - Colloquia in Social Sciences 3
- Must be selected from two different areas of social sciences. Course offerings vary each semester. See adviser.
- **Natural Science:** 8
  - Eight hours of honors to be chosen from lab sciences. See adviser for specific science course listing.
- **Mathematics:** 3-4
  - Fulbright Scholars must fulfill the math requirement of MATH 2043 or MATH 2053 or MATH 2183 or MATH 2554.

Bachelor of Fine Arts Degree

**Humanities Option 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Civilization</td>
<td>6</td>
</tr>
<tr>
<td>HIST 113H, HIST 1123H</td>
<td></td>
</tr>
<tr>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>WLIT 1113H</td>
<td></td>
</tr>
<tr>
<td>Fine Arts, World Literature II, and Philosophy</td>
<td>6</td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
</tr>
<tr>
<td>COMM 1003H, DANC 1003H, DRAM 1003H, MLIT 1003H</td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 2003H</td>
<td></td>
</tr>
<tr>
<td>World Literature II</td>
<td></td>
</tr>
<tr>
<td>WLIT 1123H</td>
<td></td>
</tr>
<tr>
<td>Colloquium in Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

Course offerings vary each semester.

**Humanities Option 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honors Roots of Culture</td>
<td>12</td>
</tr>
<tr>
<td>HUMN 1114H, HUMN 1124H, HUMN 2114H</td>
<td></td>
</tr>
<tr>
<td>Honors Roots of Culture, Philosophy, Humanities Colloquium</td>
<td>6-7</td>
</tr>
<tr>
<td>Honors Roots of Culture</td>
<td></td>
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<tr>
<td>HUMN 2124H</td>
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<tr>
<td>Philosophy</td>
<td></td>
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<tr>
<td>PHIL 2003H</td>
<td></td>
</tr>
<tr>
<td>Colloquium in Humanities</td>
<td></td>
</tr>
</tbody>
</table>

Course offerings vary each semester.

**Students pursuing either option must also complete the following:**

- **Foreign Language:** (depending upon placement) 0-9
  - See your adviser.
- **Social Science** 3
  - Select from the following:
  - Colloquia in Social Sciences 3
  - Must be selected from two different areas of social sciences. Course offerings vary each semester. See adviser.
- **Natural Science:** 8
  - Eight hours of honors to be chosen from lab sciences. See adviser for specific science course listing.
- **Mathematics:** 3-4
  - Fulbright Scholars must fulfill the math requirement of MATH 2043 or MATH 2053 or MATH 2183 or MATH 2554.

**GRADUATE STUDIES**

The Graduate School, in cooperation with the faculty of Fulbright College of Arts and Sciences, offers work leading to the graduate certificate or to the degrees of Master of Arts, Master of Science, Master of Music, Master of Fine Arts, Master of Public Administration, Master of Social Work, and Doctor of Philosophy.

Students interested in any of these advanced degrees should consult the Graduate School Catalog or the Dean of the Graduate School.

**ACCREDITATIONS**

The Bachelor of Science (B.S.) degree program in chemistry is accredited by the American Chemical Society. The American Council on Education in Journalism and Mass Communications has accredited the Bachelor of Arts (B.A.) degree program in journalism. The degree programs in the Department of Music are accredited by the National Association of Schools of Music. The Doctor of Philosophy (Ph.D.) degree program in psychology is accredited by the American Psychological Association. The Bachelor of Social Work (B.S.W.) degree and the Master of Social Work (M.S.W.) degree are accredited by the Council of Social Work Education.
DEPARTMENTS, MAJORS
AND MINORS

AFRICAN-AMERICAN STUDIES (AAST)

Charles Robinson
Chair of Studies
416 Old Main
479-575-3001
• Professor Morgan (sociology)
• Associate Professors Jones (music), Robinson (history)
• Assistant Professor D’Alisera (anthropology)

Students who wish to gain knowledge and understanding of the history, social organization, current status, and problems of African-Americans and of their contributions to the American heritage may elect a combined major in African-American studies together with a major in anthropology, economics, history, philosophy, political science, psychology, sociology, or social welfare.

Requirements for a Combined Major in African-American Studies:

1. Eighteen hours in African-American Studies courses in addition to the requirements for the departmental major;
2. African-American Studies required courses: HIST 3233 African-American History to 1877, HIST 3243 African American History since 1877, SOCI 3033 American Minorities, ANTH 4583 Peoples and Cultures of Sub-Saharan Africa;
3. The remaining six hours will be selected from the following recommended courses:
   ANTH 4513 African Religions: Gods Witches and Ancestors
   HIST 3343 Modern Imperialism
   HIST 3253 The History of Sub-Saharan Africa
   HIST 4563 The Old South 1607-1865
   HIST 4573 The New South, 1860 to Present
   SOCI 3043 Contemporary Caribbean
   SOCI 4073 Peoples of East Africa
   SOCI 4123 Black Ghetto
   WLIT 4993 African Literature
   And selected Special Topics/Special Studies courses with approval from AAST adviser;
4. No course can be counted both for African-American Studies and the departmental major.

With careful advising, a combined major of African-American Studies and majors other than those listed may be developed to meet student needs. Members of the African-American Studies Committee and interdepartmental committee are Charles Robinson (chair), history; Yimisi Jimo, English; Gordon Morgan, sociology; Charlene Johnson, education; JeAnn D’Alisera, anthropology; John Newman, art; and Carl Riley, arts and sciences.

Requirements for a Minor in African-American Studies: HIST 3233, HIST 3243 and one of the following ANTH 4513, ANTH 4583, or SOCI 4073. In addition, at least 6 hours of approved elective courses. Interested students should consult with the African-American Studies Chairman for selection of appropriate classes.

Students desiring further information may consult with Associate Professor Robinson of the history department.

SEE PAGE 310 FOR AFRICAN AMERICAN STUDIES (AAST) COURSES

AMERICAN STUDIES (AMST)

Robert B. Cochran
Chair of Studies
506 Old Main
479-575-7708
http://www.uark.edu/misc/carsinfo/major.htm
rcochran@uark.edu

The J. William Fulbright College of Arts and Sciences has a long-established commitment to the study of American cultures. Virtually every department offers courses centered on various aspects of human experience on the North American continent. The American Studies major promotes interdisciplinary approaches to these fields and provides substantial flexibility for students wishing to design tightly focused or highly individualized courses of study.

Requirements for a Major in American Studies: The American Studies major program requires 27 semester hours, which must include the following:

2. Three hours of American history, HIST 2003 or HIST 2013.
   (Students must also complete PLSC 2003 to satisfy the University requirement.)
3. Three hours of American literature, (Papers submitted in this course will fulfill the Fulbright College writing requirement.)
4. Eighteen hours to be selected from the following courses, with the selection to include:
   a. At least one of the following:
      ARCH 4483, ARHS 4913, ARHS 4923, COMM 4143, COMM 4353, COMM 4383, COMM 4883, MUHS 4253
   b. At least one of the following:
      ANTH 3213, ANTH 3253, GEOG 3343, GEOG 4063, SOCI 3033, SOCI 3193, SOCI 3253
   c. At least one of the following:
      PLSC 3153, PLSC 3853, PLSC 3933, PLSC 4203
   d. Nine hours in the chosen area of concentration. Sample areas of concentration include the following:
      African-American Culture – selections from:
      HIST 3233, PLSC 4243, SOCI 3033, SOCI 4123, and other approved courses.
      Contemporary Politics – selections from:
      COMM 4383, HIST 4733, PLSC 3973, SOCI 3153, and other approved courses.
      Gender Issues – selections from:
      ENGL 3923H, and other approved courses.
      Native American Culture – selections from:
      ANTH 3213, ANTH 3263, HIST 3263, and other approved courses.
      Southern Culture – selections from:
      ENGL 3923H, HIST 4563, HIST 4573, and other approved courses
      Western or Frontier Studies – selections from:
      HIST 3383, HIST 4463, PLSC 3223, and other approved courses

Requirements for the Major in American Studies with Emphasis on Regional Studies: Students wishing to major in American Studies with emphasis on regional studies may complete requirements (1), (2), (3), and (4) as all majors. They must also complete ANTH or SOCI 3253 to satisfy
American Studies Eight-Semester Degree Program:

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional BA Core Requirement Areas (core areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core course.

### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 3 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554
- 3 HIST 2003 History of the Am People to 1877 or HIST 2013 History of the Am People 1877-present
- 3 AMST 2003 Intro to Am Studies or Core from areas a, b, c, d or e (as needed)
- 3 Core from area a, b, c, d or e (as needed)
- 15 Total Hours

### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 3 MATH 2043, 2053, 2183, 2554 or Core from areas a, b, c, d or e (as needed)
- 3 PLSC 2003 American National Government (meets core in area b)
- 3 Core from area a, b, c, d or e (as needed)
- 4 Core from area f (as needed)
- 16 Semester Hours

### Fall Semester Year 2
- 3 AMST 2003 Intro to Am Studies (if needed) or Core from areas a, b, c, d or e (as needed)
- 3 †Course from Group 1, 2, 3 or 4 below (as needed)
- 3 †American Literature Course or Core from area a, b, c, d or e (as needed)
- 3 Core from area a, b, c, d or e (as needed)
- 4 Core from area f (as needed)
- 16 Semester Hours

### Spring Semester Year 2
- 3 †Course from Group 1, 2, 3 or 4 below (as needed)
- 3 †Course from Group 1, 2, 3 or 4 below (as needed)
- 3 Core from area a, b, c, d or e (as needed)
- 3 Core from area a, b, c, d or e (as needed)
- 3 Core from area a, b, c, d or e (as needed)
- 15 Semester Hours

### Fall Semester Year 3
- 3 †Course from Group 1, 2, 3 or 4 below (as needed)
- 3 †Course from Group 1, 2, 3 or 4 below (as needed)
- 3 †American Literature Course (if needed) or Core from area a, b, c, d or e (as needed)
- 3 Core from area a, b, c, d or e (as needed)
- 3 †Course from area g (if needed) or †Advanced Level Elective
- 1 General Elective
- 16 Semester Hours

### Spring Semester Year 3
- 3 †Course from Group 1, 2, 3 or 4 below (as needed)
- 3 †Upper Level Fulbright College Elective
- 3 †American Literature Course (if needed) or General Elective
- 3 †Core from area g (if needed) or †Advanced Level Elective
- 4 Core from area f (as needed)
- 16 Semester Hours

The following groups are referenced in the eight-semester plan above.

**Group 1**
- ARCH 4483 Architecture of the Americas
- ARHS 4913 American Art to 1900 (ARHS 2923)
- ARHS 4923 American Art since 1900 (ARHS 2923)
- COMM 4143 American Film Survey
- COMM 4353 American Public Address (Jr. Standing)
- COMM 4383 Rhetoric of the Modern American Presidency
- COMM 4883 Television and American Culture (COMM 2333)
- MUHS 4253 Special Topics in Music History (MUHS 3703 & 3713)

**Group 2**
- ANTH 3213 Indians of North America
- ANTH 3253 Cultures of the South
- GEOG 3343 Natural Regions of North America
- GEOG 4063 Urban Geography (Jr. Standing)
- SOCI 3033 American Minorities (SOCI 2013)
- SOCI 3193 Race, Class, and Gender in America (SOCI 2013)
- SOCI 3253 Cultures of the South

**Group 3**
- PLSC 3153 Public Policy (PLSC 2003)
- PLSC 3853 American Foreign Policy (PLSC 2003 or 2013)
- PLSC 3933 Contemporary American Political Thought
- PLSC 4203 American Political Parties (PLSC 2003)

**Group 4**
- At least 9 hours must be chosen from one of the following concentrations (or another approved by the director):
  - African American Studies
  - HIST 3233 African American History to 1877
  - PLSC 4243 Minority Politics
  - PLSC 4263 Supreme Court & Civil Rights
  - SOCI 3033 American Minorities
  - SOCI 4123 The Black Ghetto
  - Contemporary Politics
  - COMM 4383 Rhetoric of the Modern American Presidency
  - HIST 4733 Recent America, 1941 to present
  - PLSC 3973 Twentieth Century Political Thought
  - SOCI 3153 Urban Sociology
  - Gender Issues
  - ENGL 3923H Honors Colloquium (Honors)
  - Native American Culture
  - ANTH 3203 American Indians Today
  - ANTH 3213 Indians of North America
  - ANTH 3263 Indians of Arkansas and the South
  - HIST 3265 History of the American Indian
  - Southern Culture
ENGL 3923H Honors Colloquium
HIST 4563 The Old South, 1607-1865
HIST 4573 The New South, 1865-present
Western or Frontier Studies
HIST 3383 Arkansas and the Southwest
HIST 4463 The American Frontier
PLSC 3223 Arkansas Politics

Requirements for the Certificate in American Studies for Interna-
tional Students Not Seeking a University of Arkansas Degree: Interna-
tional students not seeking a University of Arkansas degree may receive a certificate in
American Studies by completing requirements (2) and (3), plus completing a
total of twelve hours in any combination from the courses listed under require-
ment (4). This represents a total of 18 hours.

Requirements for Departmental Honors in American Studies: The
Departmental Honors Program in American Studies offers junior and senior
students the opportunity to enroll in enriched courses and to conduct inde-
dependent research. In addition to satisfying all other requirements for the major,
honors candidates must complete at least 12 hours of honors work, including
six in honors essay. The Honors Program in American Studies requires a total
of 33 hours in addition to University and college requirements.

See page 314 for American Studies (AMST) courses

ANTHROPOLOGY (ANTH)

Jerome Rose
Chair of the Department
330 Old Main
479-575-2508
http://www.uark.edu/depts/anthinfo/
anth@uark.edu

• University Professor Limp
• Professors Early, Green, Kay, Kvanme, Mainfort, Rose, Sabo, Schneider (M.J.), Striffler, Swedenburg, Ungar
• Professors Emeriti Davis, Hoffman (Michael), McGimsey
• Associate Professors D’Alisera, Plavcan
• Associate Professor Emeritus Schneider (W.)
• Assistant Professors Casana, Erickson
• Assistant Professor Emeritus Hoffman (Margaret)

Courses in anthropology provide an introduction to world peoples, their
ways of living, and world views. Anthropology helps students to better under-
stand human similarities and differences.

Requirements for a Major in Anthropology: 30 semester hours includ-
ing ANTH 1013, ANTH 1011L, ANTH 1023, ANTH 3023, ANTH 3021L, and ANTH 4013.

Writing Requirement: The Fulbright College research/analytical paper
requirement for anthropology majors is fulfilled in ANTH 4013.

Requirements for Departmental Honors in Anthropology: The De-
partmental Honors Program in Anthropology provides an opportunity for
outstanding undergraduate majors to conduct independent research under
the supervision of a faculty member. The research project culminates in an
honors thesis, which is primary for the award "Anthropology Scholar Cum Laude." Higher degree distinctions are recommended only in truly exceptional
cases and are based upon the candidate's entire program of honors studies.

Honors candidates must meet the college requirements for an honors
degree. They must complete and defend an honors thesis and take 12 hours,
which may include 6 hours of thesis, in Honors Studies. The candidate

is expected to maintain a minimum 3.5 cumulative grade-point average in
anthropology and other course work.

Anthropology Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page
42 in the Academic Regulations chapter for university requirements of the
program. The following eight-semester plan refers to additional B.A. Core
Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the
end of this chapter. Core requirement hours may vary by individual, based on
placement and previous credit granted. Once all core requirements are met,
students may substitute a three-hour (or more) general elective in place of a
core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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<tr>
<td>3 MATH 1203 (if required) or †MATH 2043, 2053, 2183 or 2554</td>
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<tr>
<td>3 ANTH 1023 Introduction to Cultural Anthropology</td>
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<tr>
<td>3 Core from areas a, b, c, d or e</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td><strong>15 Semester Hours</strong></td>
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<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>4 ANTH 4013/4011L Approaches to Archeology and Laboratory</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td><strong>16 Semester Hours</strong></td>
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<tr>
<th>Fall Semester Year 2</th>
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<tbody>
<tr>
<td>4 †ANTH 3023/3021L Approaches to Archeology and Lab</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 General Elective</td>
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<tr>
<td><strong>16 Semester Hours</strong></td>
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<tbody>
<tr>
<td>3 †Core from area g (if needed) or †Advanced Level Elective</td>
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<td>3 †ANTH Upper Level Elective</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td><strong>15 Semester Hours</strong></td>
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<td>3 †ANTH Upper Level Elective</td>
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<td>3 †ANTH Upper Level Elective</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>4 Core from area f (as needed)</td>
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<td><strong>16 Semester Hours</strong></td>
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<th>Spring Semester Year 3</th>
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<tbody>
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<td>3 †Core from area g (if still needed) or †Advanced Level Elective</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>4 Core from area f (as needed)</td>
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<tr>
<th>Fall Semester Year 4</th>
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</thead>
<tbody>
<tr>
<td>3 †ANTH 4013 History of Anthropological Thought</td>
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<tr>
<td>3 †ANTH Upper Level Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td><strong>15 Semester Hours</strong></td>
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</table>
Requirements for a Minor in Anthropology: 15 hours including ANTH 1023. At least 9 hours must be in courses numbered 3000 or above. Students who minor in anthropology should consult with an anthropology adviser to select appropriate courses. A student must notify the department of his or her intent to minor.

Requirements for a Combined Major in Anthropology/Sociology: 36 hours with a minimum of 15 hours in each subject, to include SOCI 2013, SOCI 3013, SOCI 3303 (or a course in statistics), SOCI 3313, and SOCI 4023 and ANTH 3013, ANTH 1011L, ANTH 1023, ANTH 3023/3021L, and ANTH 4013. Additional courses are to be selected in consultation with a representative of the field concerned.

Anthropology/Sociology Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individually, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

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<thead>
<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td>3 ANTH 3023 Approaches to Archaeology and Lab</td>
</tr>
<tr>
<td>3 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
</tr>
<tr>
<td>3 ANTH 1023 Introduction to Cultural Anthropology</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>4 Core from areas a, b, c, or d (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>2 General Elective</td>
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<tr>
<td>15 Semester Hours</td>
<td>16 Semester Hours</td>
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<tr>
<th>Spring Semester Year 2</th>
<th>Fall Semester Year 3</th>
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</thead>
<tbody>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>4 †SOCI 3301L Social Data &amp; Analysis and Lab</td>
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<td>4 Core from area f (as needed) or Advanced Level Elective</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<tr>
<td>3 General Elective</td>
<td>3 General Elective</td>
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<tr>
<td>16 Semester Hours</td>
<td>16 Semester Hours</td>
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<tr>
<th>Spring Semester Year 3</th>
<th>Fall Semester Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †ANTH 4013 History of Anthropological Thought</td>
<td>4 †SOCI 3313 Social Research</td>
</tr>
<tr>
<td>3 †SOCI 4023 Social Theory</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td>4 Core from area f (as needed)</td>
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<tr>
<td>15 Semester Hours</td>
<td>16 Semester Hours</td>
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</tbody>
</table>

Cartography/Remote Sensing/GIS Specialization: This program gives students an opportunity to develop expertise in (1) cartography, map design and computer-assisted map production, (2) remote sensing and image interpretation, including photographic systems, sensor systems, and digital image processing, and (3) geographic information systems, including data sources, analytical techniques, and hardware/software systems. To complete the specialization, a student is required to fulfill certain course requirements.

Required Courses (9 hours):
- GEOG 3023, GEOS 4413, and GEOS 3543 (same as ANTH 3543) Elective Courses (9 hours to be selected from the following):
- GEOG 4523, GEOG 4533, GEOG 4534 (same as ANTH 4553), GEOG 4556 (same as ANTH 4563), GEOG 4573 (same as ANTH 4573), GEOG 4593 (same as ANTH 4593), STAT 4003 (or other approved statistics course), CVEG 2053 (or other approved surveying course), CENG 4883

For the combined major in Anthropology and African-American Studies, see the African-American Studies listing.

For requirements for the M.A. and Ph.D. degrees in anthropology, see the Graduate School Catalog.

See Page 315 for Anthropology (ANTH) Courses.
ART (ARTS)

Lynn F. Jacobs
Chair of the Department
116 Fine Arts Building
479-575-5202
http://www.art.uark.edu
artinfo@www.uark.edu
• Distinguished Professor Harington
• Professor Peven
• Professor Emeriti Brody, Ross, Stout
• Associate Professors Golden, Jacobs, LaPore, Musgnug, Nelson, Newman
• Assistant Professors Hapgood, Hulen, Springer
• Visiting Assistant Professor Swartwood
• Instructor Jones
• Adjunct Assistant Professor Kaminsky

Bachelor of Arts Degree

Transfer students should confer with the chairperson of the department prior to entrance for information concerning entrance requirements and transfer credits.

Requirements for a Major in Art with a Concentration in Studio Art:
A minimum of 43 semester hours, including ARTS 1313, ARTS 1323, ARTS 1013, ARTS 2013, ARTS 2313, ARTS 4921, and at least 12 hours in art history/criticism to include: ARHS 2913 (Survey I) and 2923 (Survey II); one course from ARHS 4833 (Ancient), ARHS 4843 (Medieval), ARHS 4853 (Italian Renaissance), ARHS 4863 (Northern Renaissance), ARHS 4873 (Baroque); and one course from ARHS 4883 (19th Century European), ARHS 4893 (20th Century European), ARHS 4913 (American Art to 1900), ARHS 4923 (American Art Since 1900), ARHS 4813 (History of Photography), ARHS 4823 (History of Graphic Design). In addition to the freshman year block of courses, the art major must complete a minimum of three semesters in one specialty area of art and a minimum of two semesters in a second area. Areas of selection are drawing, painting, sculpture, printmaking, ceramics, photography, and visual design. An exhibition of creative work of each student is required before commencement. No art major may present ARTS 1003 or ARHS 1003, or any other art course, to satisfy the college fine arts requirement.

Art B.A. with a Concentration in Studio Art Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

Primary concentration requires 9 hours in one area chosen from ceramics, drawing, visual design, painting, photography, printmaking or sculpture. Secondary concentration requires 6 hours in another area. Must be 3000-4000 level for credit toward the 24-hour rule.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>15 Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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</tr>
<tr>
<td>3 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
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<tr>
<td>3 ARTS 1013 Drawing Fundamentals 1 or ARTS 1313 2-Dimensional Design</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<th>Spring Semester Year 1</th>
<th>15 Semester Hours</th>
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<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
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<tr>
<td>3 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 ARTS 1013 Drawing Fund. 1 or ARTS 1313 2-Dimensional Design (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from area f (as needed)</td>
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<tr>
<th>Fall Semester Year 2</th>
<th>15 Semester Hours</th>
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<tbody>
<tr>
<td>3 ARTS 2013 Figure Drawing 1 or ARTS 1323 Three-Dimensional Design</td>
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<tr>
<td>3 ARHS 2913 Art History Survey I</td>
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<tr>
<td>3 ARHS 2313 Computer Applications in Art</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<th>15 Semester Hours</th>
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<td>3 Core from area g (if needed) or Advanced Level Elective</td>
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<td>3 ARTS 2013 Figure Drawing 1 or ARTS 1323 Three-D Design (as needed)</td>
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<td>3 ARHS 2923 Art History Survey 2</td>
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<td>3 Core from area f (as needed)</td>
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<thead>
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<th>16 Semester Hours</th>
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<tr>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>4 Core from areas a, b, c, d or e (as needed)</td>
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<td>4 Core from area f (as needed)</td>
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<th>Spring Semester Year 3</th>
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<tbody>
<tr>
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<tr>
<td>3 ARHS Upper Level Group 1 or 2 (below, as needed)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>4 Core from area f (as needed)</td>
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<tr>
<td>3 ARTS primary or secondary concentration</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<th>Spring Semester Year 4</th>
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<td>3 ARTS 4921 Senior Portfolio Review</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
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</tbody>
</table>

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Upper Level ARHS Group 1. Choose one course from:
ARHS 4833 Ancient Art
ARHS 4843 Medieval Art
ARHS 4853 Italian Renaissance Art
ARHS 4863 Northern Renaissance Art  
ARHS 4873 Baroque Art  
Upper Level ARHS Group 2. Choose one course from:  
ARHS 4813 History of Photography  
ARHS 4823 History of Graphic Design  
ARHS 4883 19th Century European Art  
ARHS 4893 20th Century European Art  
ARHS 4913 American Art to 1900  
ARHS 4923 American Art since 1900

Requirements for a Minor in Studio Art: A minimum of 18 semester hours to include ARTS 1013, either ARTS 1313 or ARTS 1323, and one of the following three courses: ARHS 1003, ARHS 2913, or ARHS 2923. A minimum of nine additional hours are required in studio art, to be determined through consultation with an art department adviser. A student must notify the department of his or her intent to minor.

Requirements for a Major in Art with a Concentration in Art History/Criticism: A minimum of 39 semester hours, including ARTS 1313, ARTS 1323, ARTS 1013, ARTS 2013, and ARHS 2913, ARHS 2923. In addition to the preceding requirements, two courses selected from ARHS 4833, ARHS 4843, ARHS 4853, ARHS 4863, ARHS 4873, two courses selected from ARHS 4813, ARHS 4883, ARHS 4893, ARHS 4913, ARHS 4923. In addition, ARHS 4963 (Individual Research in Art History), one seminar course in art history or art criticism, and one elective course in art history or studio art. No art major may present ARHS 1003 or ARTS 1003, or any other art course, to satisfy the college fine arts requirements.

Art B.A. with a Concentration in Art History/Criticism Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>3 MATH 1203 (if required) or †MATH 2043, 2053, 2183 or 2554</td>
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</tr>
<tr>
<td>3 ARHS 2913 Art History Survey 1</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
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<tr>
<td>3 †MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 ARHS 2923 Art History Survey 2</td>
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<tr>
<td>3 ARTS 1013 Drawing Fundamentals 1 or ARTS 1313 Two-Dimensional Design</td>
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</tr>
<tr>
<td>4 Core from area f (as needed)</td>
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<tr>
<td>16 Semester Hours</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>3 ARTS 1313 Two-Dimensional Design or ARTS 1013 Drawing Fund. 1 (as needed)</td>
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</tr>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>15 Semester Hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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<tbody>
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<td>3 ARTS 1323 Three-Dimensional Design or †ARTS 2013 Figure Drawing</td>
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<td>3 Core from area g (if needed) or †Advanced Level Elective</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>3 †ARTS 2013 Figure Drawing 1 or ARTS 1323 Three-Dimensional Design (as needed)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tbody>
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<td>3 †Upper Level Art Elective</td>
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<td>4 Core from area f (as needed)</td>
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<thead>
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<th>Fall Semester Year 4</th>
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<tr>
<td>3 †ARHS 4943 Seminar in Art Criticism</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 4</th>
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<tbody>
<tr>
<td>3 †ARHS 4963 Individual Research in Art History</td>
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<td>3 †Upper Level ARSC Elective</td>
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† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Upper Level ARHS Group 1. Choose two courses from:  
ARHS 4833 Ancient Art (ARHS 2913)  
ARHS 4843 Medieval Art (ARHS 2913)  
ARHS 4853 Italian Renaissance Art (ARHS 2923)  
ARHS 4863 Northern Renaissance Art (ARHS 2923)  
ARHS 4873 Baroque Art (ARHS 2923)  
Upper Level ARHS Group 2. Choose two courses from:  
ARHS 4813 History of Photography  
ARHS 4883 19th Century European Art (ARHS 2923)  
ARHS 4893 20th Century European Art (ARHS 2923)  
ARHS 4913 American Art to 1900 (ARHS 2923)  
ARHS 4923 American Art since 1900 (ARHS 2923)

Requirements for a Minor in Art History/Criticism: A minimum of 18 semester hours to include ARTS 1013, ARHS 2913, ARHS 2923, and three additional art history courses exclusive of seminars. A student must notify the department of his/her intent to minor. The minor is especially suited to students majoring in anthropology, English, foreign languages, history, philosophy, and music.

Requirements for Departmental Honors in Art: As part of the Honors
Studies Program of the J. William Fulbright College of Arts and Sciences, the department of art provides the opportunity for academically superior junior- and senior-level students to acquire broader and deeper knowledge and skills in the visual arts and related disciplines. This is accomplished through independent research projects in studio art and/or art history under the direction of the art faculty. Outstanding achievement is recognized by awarding the distinction “Art Scholar Cum Laude.” Students may apply for honors study beginning in the second semester of their sophomore year and normally will not be accepted into the program after completion of the second semester of their junior year. The department requires each applicant to have a minimum cumulative grade-point average of 3.5 in all college course work, a minimum grade-point average of 3.5 in all course work taken in the department of art, completed ARHS 2913 and ARHS 2923, completed at least 20 semester hours of work in art department courses, and at least 30 semester hours of general education requirements. Included in those hours, a student must complete and defend an honors thesis and take 12 hours, which may include 6 hours of thesis, in honors studies. Higher degree distinctions take into consideration the student’s entire academic career and are recommended for only those students whose honors projects and programs of study demonstrate a truly exceptional degree of creativity and scholarship.

**Bachelor of Fine Arts Degree**

**Admission:** Students earning a grade-point average of 3.00 or higher in art, after the completion of ARTS 1013, 1313, and 1323, and who have maintained an overall grade-point average of 2.00 are eligible to make application to the B.F.A. degree program. In addition to meeting the required grade-point average, all students must submit, as part of their application, a portfolio of current representative work for evaluation by the art faculty. Acceptance into the B.F.A. program is contingent upon favorable evaluation by the art faculty of the applicant’s portfolio. Upon acceptance into the B.F.A. degree program, each student will be assigned a major adviser for the purpose of completing a degree plan, which must meet departmental approval.

After entry into the B.F.A. program, the student is required to complete two semesters with a minimum of three credit hours of course work in their major studio area each semester.

Transfer credit will be allowed from other accredited and recognized art departments if the credit earned is compatible with program and course requirements within the UA art department and reflects a grade of “C” or higher. This department will not accept more than 50 percent of the required B.F.A. professional degree credits from another institution.

**Degree Requirements:** The Bachelor of Fine Arts degree will be awarded to students, who, upon the completion of the approved program, have maintained a 3.00 grade-point average within the UA art department and a 2.00 grade-point average overall. A faculty-supervised critique of the work of each student, once each semester in the program, is required. A senior review and exhibition will be required prior to the granting of the degree.

**Off-Campus Study Requirement:** Each student is required to complete an approved off-campus study experience each semester in the program. This may involve a field trip to an urban center that includes visits to major art collections.

**Requirements for the Bachelor of Fine Arts Degree with a Concentration in Studio Art:** A minimum of 84 semester hours including ARTS 1013, ARTS 1313, ARTS 1323, ARTS 2003, ARTS 2013, ARTS 2313, ARTS 3333, ARTS 3023 or ARTS 4343, ARTS 4021, PHIL 4403, plus a minimum of 18 semester hours in the selected studio major, a minimum of 23 semester hours in art electives (must include a minimum of one course in each of the following areas: painting, sculpture, printmaking, visual design, photography, and ceramics. Up to six credit hours may be taken outside of the department with approval), and at least 15 semester hours in art history including ARHS 2913, ARHS 2923, and ARHS 4943.

### Art B.F.A. with a Concentration in Studio Art Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.F.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 201 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

ARTS Electives must include at least one course in each of the following media areas: painting, sculpture, printmaking, visual design, photography, and ceramics.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>3 MATH 1203 College Algebra</td>
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</tr>
<tr>
<td>3 ARTS 1013 Drawing Fundamentals I</td>
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</tr>
<tr>
<td>3 ARTS 1313 2-Dimensional Design or ARTS 1323 3-Dimensional Design</td>
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</tr>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>15 Semester Hours</td>
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<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
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<td>0-3 Core from areas a, b, c, d or e (needed only if starting at 1003 level in foreign language)</td>
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<tr>
<td>3 †ARTS 2013 Figure Drawing or †Art Primary Studio Concentration 1</td>
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<tr>
<td>3 ARTS 1313 2-Dimensional Design or ARTS 1323 3-Dimensional Design (as needed)</td>
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</tr>
<tr>
<td>3 ARTS 2313 Computer Applications in Art</td>
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<td>15-18 Semester Hours</td>
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<thead>
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</thead>
<tbody>
<tr>
<td>3 ARTS Elective</td>
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<tr>
<td>3 †ARTS 2013 Figure Drawing (if needed) or †Art Primary Studio Concentration 1</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>3 †Core from area g (if required; may also take in semester 6) or ARTS Elective</td>
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<tr>
<td>3 ARHS 2913 Art History Survey I</td>
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**Fall Semester Year 3**

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<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3 †Advanced Foundations Course</td>
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<td>3 ARTS Elective</td>
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<tr>
<td>3 †ARTS Primary Studio Concentration 3</td>
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<tr>
<td>3 Core from area f</td>
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<td>3 ARHS 2923 Art History Survey II</td>
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<td>3 †Advanced Foundations Course (below)</td>
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<td>3 †ARTS Primary Studio Concentration 3</td>
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<tr>
<td>3 ARTS Elective</td>
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<td>3 †ARHS Art History upper level</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>18 Semester Hours</td>
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<th>Spring Semester Year 3</th>
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<tbody>
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<td>3 ARTS Elective</td>
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<td>3 †Advanced Foundations Course (below) or ARTS Upper-Level Elective</td>
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<td>3 †ARHS Art History upper level</td>
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<td>3 †Core from area g (if needed) or ARTS Elective</td>
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<tr>
<td>18 Semester Hours</td>
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</tbody>
</table>
Stage II: Internship

1. Complete the one-semester internship at an approved site in Washington or Benton counties.
2. Complete Praxis II requirements. See your adviser for completion dates.

NOTE: Students should always consult the Coordinator of Teacher Education for any licensure requirement changes. Students will not be licensed to teach in Arkansas until they have met all requirements for licensure as set forth by the Arkansas Department of Education.

Usually licensure in another state is facilitated by qualifying for a license in Arkansas. An application in another state must be made on the application form of that state, which can be obtained by request from the State Teacher Licensure office in the capital city. An official transcript should accompany the application. In many instances the applications are referred to the Coordinator of Teacher Education to verify program completion in teacher education.

Writing Requirement: The Fulbright College research/analytical writing requirement for art majors, B.A. and B.F.A. degrees, will be fulfilled in art history courses ARHS 4833, ARHS 4843, ARHS 4853, ARHS 4863, ARHS 4873, ARHS 4943, ARHS 4963, and ARHS 4973. It also may be an honors thesis in art history (only).

Art B.F.A. with a Concentration in Art Education Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.F.A. Core Requirement Areas (areas a, b, c, d, e, f, g, and h) found on page 201 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

ARTS Electives exclusive of the studio major and minor to be selected from ARTS 3103, ARTS 3203, ARTS 3363, ARTS 3463, ARTS 3503 or ARTS 3523, ARTS 3803.

Requirements for the Bachelor of Fine Arts Degree with a Concentration in Art Education: A minimum of 66 hours to include ARTS 1013, ARTS 1313, ARTS 1323, ARTS 2003, ARTS 2013, ARTS 2313, ARTS 3333, ARTS 3023 or ARTS 4343, ARTS 4921, PHIL 4403, a minimum of 12 hours in a selected studio major and 6 hours in a selected studio minor, at least 12 hours in art history including ARHS 2013, ARHS 2923, and ARHS 4943, at least 8 hours of 3000- or 4000-level studio art electives exclusive of the studio major and minor.

Students who wish to apply for admission to the internship program in art education must complete the following Stages:

Stage I: Complete an evaluation for internship. Students must also meet the following criteria to be cleared for the internship:

1. Declare the major in art education in the Fulbright Advising Center, 518 Old Main.
2. Successful completion of the PRAXIS I test by meeting or exceeding the Arkansas Department of Education cut-off scores. This test should be taken after the student has completed 30 credit hours and upon completion of ENGL 1013, ENGL 1023, and MATH 1203.
3. Obtain a "C" or better in the following pre-education core courses: CIED 1002, CIED 1011, CIED 3023, CIED 3033, ETNE 2001, ETNE 2002L.
4. Obtain a "C" or better in AREH 3631, AREH 3643, AREH 3653.
5. Satisfactory completion of the Evaluation for Internship form. The Evaluation form must be completed by October 1 prior to doing a fall internship or March 1 prior to doing a spring internship. This form is available online at http://coehp.uark.edu/Evaluation_for_Art_Internship.doc.

The completed form must be returned to the Coordinator of Teacher Education, 8 Peabody Hall, no later than the stated deadline.
6. Complete the B.F.A. degree with a cumulative GPA of 2.50 or higher. The degree must be posted to your University of Arkansas transcript at the Registrar’s Office prior to internship.
7. Obtain departmental clearance for internship based on successful completion of portfolios, evaluation for internship, GPA requirements, course work requirements, selected written recommendations, an interview, and/or other requirements specified by your program.

8. Complete licensure packet available from the Coordinator of Teacher Education, Peabody Hall Room 8.

All requirements in Stage I must be met to be cleared for the internship. Please contact the Coordinator of Teacher Education, 8 Peabody Hall, College of Education and Health Professions for more information.

Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>ARHS 4943 Seminar in Art Criticism</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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Semester Hours: 16

Advanced Foundations Courses:
- ARTS 2003 Drawing Fundamentals II (Fall and Spring)
- ARTS 3333 Color Studies (Fall)
- ARTS 3023 Drawing III (Fall) or ARTS 4343 Advanced Design (Spring)

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
ARTS AND SCIENCES (ARSC)

Charles H. Adams
Chair of Studies
525 Old Main
479-575-4801

Students may enroll in off-campus programs (ARSC) under special circumstances and with the approval of the Associate Dean of Fullbright College.

SEE PAGE 318 FOR ARTS AND SCIENCES (ARSC) COURSES

ASIAN STUDIES (AIST)

Ka Zeng
Chair of Studies
428 Old Main
479-575-3356

Students may earn a minor in Asian Studies by taking courses in art, anthropology, economics, geography, history, languages, sociology, political science, and literature of Asia.

Language Requirement: Students must fulfill the Fullbright College requirement in either Chinese or Japanese. At the discretion of the chair of studies, proficiency in other Asian languages may also satisfy this requirement.

Beyond the language requirement, students must complete 15 credit hours of approved courses, including at least three hours in the Asian Studies Colloquium (AIST 4003). The following courses may be taken in fulfillment of the elective requirements:

- ECON 3933 Japanese Economic System
- ECON 4633 International Trade Policy
- HIST 3503 Far East in Modern Times
- HIST 4313 History of China to 1644
- HIST 4323 Modern China
- HIST 4343 Modern Japan
- JAPN 4313 Language and Society of Japan
- MUSY 4313H Special Topics in Asian and Middle Eastern Musics
- PLSC 3503 Governments and Politics of East Asia
- PLSC 4823 Foreign Policy of East Asia
- SOCI 3013 Population and Society
- WLLT 4293 Literature of China and Japan

Students may also apply three hours of credit in an approved study-abroad program in an Asian country and three hours of upper-level Chinese or Japanese toward the minor.

Other courses, MGMT 4583, International Management, and Performing Arts of East Asia, may be taken for credit toward the minor with the approval of the chair of Asian Studies.

SEE PAGE 314 FOR ASIAN STUDIES (AIST) COURSES

BIOLOGICAL SCIENCES (BISC)

Kimberly G. Smith
Chair of the Department
601 Science Engineering
479-575-3251
http://biology.uark.edu/

- University Professor James
- Professors Beaupre, Durdik, Eges, Henry, Kral, Rhoads, Smith (K.), Spiegel, Walker
- Professors Emeriti Dale, Evans, Johnston, Kilambi, Martin, Meyer, Russert-Kraemer, Smith (E.), Talburt

For requirements for the M.E.A. degree program in art, see the Graduate School Catalog. 
SEE PAGE 318 FOR ART (ARTS) COURSES

University of Arkansas, Fayetteville
The Department of Biological Sciences offers a Bachelor of Science degree for those students who seek a degree with a broad background in the life sciences. The B.S. is recommended for students planning to continue in the discipline. Students seeking research experience are invited to participate in the college honors program.

**Requirements for a B.S. Degree with a Major in Biology:** A minimum of 124 hours is required, including 40 hours in the major as specified below.

1. **Biology Core (13 hours):** Cell Biology (BIOL 2533), General Genetics (BIOL 2323), Evolutionary Biology (BIOL 3023), General Ecology (BIOL 3863) and a minimum of one hour of Core Laboratory selected from Cell Biology Laboratory (BIOL 2531L), General Genetics Laboratory (BIOL 2321L), and General Ecology Laboratory (BIOL 3861L).
2. **Bibliographic Practicum (BIOL 2001)**
3. An additional 26 hours of electives in biology and/or biology related electives including:
   a. No more than 8 hours of elective courses at the 1000 level. This includes Principles of Biology. Principles of Biology (BIOL 1543/1541L) is not required for the B.S. major. Well-prepared students, in consultation with their adviser, may opt to begin their coursework with the Core.
   b. At least 2 elective courses numbered 2000 or higher which are lab courses. This includes Core Labs taken in addition to the basic Core requirement. Courses whose catalog description explicitly excludes them from counting toward the major may not be used to meet this requirement.
   c. At least 18 hours in courses numbered 3000 or higher, of which at least 12 hours must be from courses numbered 4000 or higher.
   d. A course meeting the Fulbright College writing requirement. (The means of meeting the writing requirement are listed following the description of Requirements for Departmental Honors in Biology.)

**NOTICE:** Biology related electives that are not taught by the Department of Biological Sciences must be approved using the "Exception Request for Major or Minor Requirements" form.

**Requirements in cognate science and mathematics include the following:**

1. **CHEM 1103/1101L** (may be completed by advanced placement), CHEM 1123/1121L, CHEM 3603/3601L, CHEM 3613/3611L, CHEM 3813
2. **PHYS 2013/2011L**
3. **MATH 2554 or Core from areas a, b, c or e (as needed)**
4. **STATS 2023 Biostatistics**
5. **BIOL 4000 Level Elective (below)**

**Biology B.S. Eight-Semester Degree Program**

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area. Students must complete at least 124 hours and this must be considered when scheduling upper-level hours in the senior year.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Year 1</td>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 1213 or 1285 or MATH 2554</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>BIOL 1543/BIOL 1541L Principles of Biology and Lab</td>
<td>4</td>
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<tr>
<td></td>
<td>CHEM 1103/1101L optional University Chemistry I</td>
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<tr>
<td></td>
<td>Core from areas a, b, c or e (as needed)</td>
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<td></td>
<td>16-19 Semester Hours</td>
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<td>Spring Year 1</td>
<td>ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 2533 Cell (BIOL 2531L optional)</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>CHEM 3603/3611L Organic Chemistry I and Lab</td>
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<td></td>
<td>Core from areas a, b, c or e (as needed)</td>
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<tr>
<td></td>
<td>BIOL lab course 2000-level or above</td>
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<td></td>
<td>General Elective</td>
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<tr>
<td></td>
<td>15-16 Semester Hours</td>
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</tr>
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<td>Fall Year 2</td>
<td>BIOL 2323/ Genetics (BIOL 2321L optional)</td>
<td>3-4</td>
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<td></td>
<td>CHEM 3613/ CHEM 3611L Organic Chemistry II and Lab</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Core from area f (if needed) or Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
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<tr>
<td></td>
<td>16-17 Semester Hours</td>
<td></td>
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<tr>
<td>Spring Year 2</td>
<td>BIOL 2323/ Genetics (BIOL 2321L optional) or BIOL 3023 Evolutionary Biology</td>
<td>3-4</td>
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<td></td>
<td>CHEM 3813 Introduction to Biochemistry</td>
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<td></td>
<td>PHYS 2013/ PHYS 2011L College Physics I and Lab</td>
<td>4</td>
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<tr>
<td></td>
<td>Core from area f (if needed) or Core from areas a, b, c or e (as needed)</td>
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<tr>
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<td>Core from areas a, b, c or e (as needed)</td>
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<td></td>
<td>15-16 Semester Hours</td>
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<td>Fall Year 3</td>
<td>BIOL 3023 Evolutionary Biology (if still needed) or BIOL 3000-4000 Level Elective (below)</td>
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<td></td>
<td>BIOL 3863/ BIOL 3861L optional General Ecology</td>
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<td></td>
<td>PHYS 2033/ PHYS 2031L College Physics II and Lab</td>
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<td>Core from areas a, b, c or e (as needed)</td>
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<tr>
<td></td>
<td>16-17 Semester Hours</td>
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<td>Spring Year 3</td>
<td>BIOL 3000-4000 Level Elective (below)</td>
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<td>BIOL 4000 Level Elective (below)</td>
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<td>STATS 2023 Biostatistics</td>
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<td>Core from areas a, b, c or e (as needed)</td>
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<tr>
<td></td>
<td>15-17 Semester Hours</td>
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<td>Spring Year 4</td>
<td>BIOL 4000 Level Elective (below)</td>
<td>3-4</td>
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<tr>
<td></td>
<td>BIOL 4000 Level Elective (below)</td>
<td>3-4</td>
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<tr>
<td></td>
<td>BIOL 3000-4000 Level Elective (below)</td>
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</tr>
<tr>
<td></td>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15-17 Semester Hours</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>124</td>
<td></td>
</tr>
</tbody>
</table>
BIOL 3000-4000 Level Electives are grouped below according to the general subject area. A minimum of 12 hours of 4000-level BIOL electives are required.

**BIOL Botany Group:** (Pre-requisite requirement in italics)
- BIOL 4104 Taxonomy of Flowering Plants (BIOL 2323 and BIOL 3023)
- BIOL 4114 Dendrology (BIOL 3863)

**BIOL 4304** Plant Physiology (BIOL 1543/1541L, BIOL 1603/1611L and general chemistry)

**BIOL 4404** Comparative Botany (BIOL 2533)

**BIOL 4424** Mycology (BIOL 1543/1541L and BIOL 1603/1611L)

**BIOL 4523** Plant Ecology (BIOL 3863)

**BIOL 4724** Protistology (Prerequisite or Corequisite BIOL 3023, Prerequisite BIOL 2533 and BIOL 2323)

**BIOL: Microbiology Group:** (Pre-requisite requirement in italics)
- BIOL 3123 Prokaryote Biology (BIOL 2533)
- BIOL 4003 Lab in Prokaryote Biology (BIOL 3123)
- BIOL 4124 Food Microbiology (BIOL 2533 and CHEM 1123 and CHEM 1121L or equivalent)
- BIOL 4233 Genomics and Bioinformatics (BIOL 4313)
- BIOL 4313 Molecular Cell Biology (BIOL 2533 and BIOL 2323, CHEM 3603/3601L and CHEM 3613/3611L)
- BIOL 4443 Molecular Virology (BIOL 2323 or BIOL 2323 and BIOL 4753 or 2533)
- BIOL 4703 Mechanisms of Pathogenesis (BIOL 2533)
- BIOL 4713/4711L Basic Immunology (BIOL 2323 and BIOL 2533)
- BIOL 4753 General Virology (BIOL 2533)
- BIOL 490V Special Topics in Microbiology

**BIOL: Zoology Group:** (Pre-requisite requirement in italics)
- BIOL 3353 Mechanics of Human Movement (BIOL 2443/2441L)
- BIOL 4234 Comparative Physiology (BIOL 2533 and CHEM 3613/3611L)
- BIOL 4263 Cell Physiology (BIOL 2533, CHEM 3813 and PHYS 2033)
- BIOL 4353 Ecological Genetics (BIOL 2323/2321L, MATH 2554 and STAT 2023 or equiv.)
- BIOL 4433 Principles of Evolution (BIOL 2323 and BIOL 3863)
- BIOL 4463 Physiological Ecology (BIOL 3863 and BIOL 4234 and its lab component)
- BIOL 4513/4511L Population Ecology (BIOL 3863)
- BIOL 4554 Developmental Biology (BIOL 2323 and BIOL 2533)
- BIOL 4613 Primate Adaptation and Evolution (BIOL 3023 or ANTH 4613)
- BIOL 4724 Protistology (Prerequisite or Corequisite BIOL 3023, Prerequisite BIOL 2533 and BIOL 2323)
- BIOL 4734 Wildlife Management Techniques (BIOL 3863)

**BIOL 4743** Fish Biology (12 hours of BIOL credit)

**BIOL 4763** Ornithology (BIOL 3863)

**BIOL 4793** Introduction to Neurobiology (BIOL 2533)

**BIOL 4814** Limnology (BIOL 3863 and CHEM 1123/1121L)

**BIOL 4833** Animal Behavior (BIOL 3863)

**BIOL 4844** Community and Ecosystems (BIOL 3863)

**BIOL 485V** Field Ecology (BIOL 3863)

**BIOL 490V** Special Topics in Microbiology

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**Requirements for a B.A. Degree with a Major in Biology:**

A minimum of 124 hours is required, including:

1. BIOL 1543/1541L. Majors may take additional 1000-level BIOL courses, but majors may only apply a maximum of eight 1000-level credits toward the major.
2. An additional 24 hours of biological sciences, including:
   a. One course from four of the following six areas of specialization, and at least one course from each of the three general areas of biology: botany, microbiology, zoology
      I. Microorganism Biology: BIOL 2533/2531L [lab optional] or BIOL 2013/2011L
      II. Genetics: BIOL 2323/2321L or BIOL 4233
      III. Morphology: BIOL 2504, BIOL 4104, BIOL 4424, BIOL 3123, BIOL 2404 or BIOL 2814
      IV. Physiology: BIOL 4304, BIOL 4313 or BIOL 2213/2211L
      V. Evolution: BIOL 3023
      VI. Ecology: BIOL 3863/3861L
   b. Bibliographic Practicum BIOL 2001
   c. Remaining 8-10 credit hours of biology electives above the 3000 level

3. Requirements in cognate science and mathematics include:
   a. CHEM 1103/1101L, CHEM 1123/1121L, and either CHEM 2613/2611L/2610D or CHEM 3603/3601L, and CHEM 3613/3611L
   b. PHYS 2033/2011L, PHYS 2033/2031L
   c. MATH 2043 or MATH 2554

**Biology B.A. Eight-Semester Degree Program**

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

---

**Fall Semester Year 1**

<table>
<thead>
<tr>
<th>3-4</th>
<th>ENGL 1013 Composition I</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5</td>
<td>MATH 1213 Plane Trig, or MATH 1285 Precalculus (if needed for MATH 2554) or Core from areas a, b, c, d, or e (as needed)</td>
</tr>
<tr>
<td>4</td>
<td>BIOL 1543/BIOI 1541L Principles of Biology and Lab</td>
</tr>
<tr>
<td>3-4</td>
<td>CHEM 1103/ CHEM 1101L (optional)</td>
</tr>
<tr>
<td>1</td>
<td>General Elective (if needed for 15-hour schedule)</td>
</tr>
</tbody>
</table>

**Spring Semester Year 1**

| 3-4 | ENGL 1023 Composition II |
| 3-4 | † MATH 2043 Survey of Calculus or (MATH 2554 Calculus I) |
| 3-4 | BIOL 1613/1611L (optional) or Core from areas a, b, c, d, or e |
| 4 | CHEM 1123/CHEM 1121L |
| 3 | Core from areas a, b, c, d or e (as needed) |

**Fall Semester Year 2**

| 3-4 | † BIOL 2013/BIOL 2011L. Gen. Micro or BIOL 2533 (BIOL 2531L (optional) Cell Biology) |
| 4 | † BIOL 2213/ BIOL 2211L. Human Phys. or BIOL 2323/ BIOL 2321L. Gen. Genetics |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |

**Fall Semester Year 2**

| 16-17 | Semester Hours |
Spring Semester Year 2

3-4  † BIOL 2213/ BIOL 2211L Human Phys. or BIOL 2323/ BIOL 2321L Gen. Genetics
4  CHEM 2613/261L Organic Physiological Chemistry
3  † Core from area a (if needed) or Core from areas b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
3  Elective
16-17  Semester Hours

Fall Semester Year 3

4  † BIOL from Botany group (see below)
3-4  † BIOL 2404/ BIOL 2400L or † BIOL 3023 or † BIOL 3863/ BIOL 3861L
4  † PHYS 2033/ PHYS 2031L College Physics I
3  † Core from area a (if needed) or Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
17-18  Semester Hours

Spring Semester Year 3

3-4  † BIOL 3023 or † BIOL 3863/ BIOL 3861L or † BIOL elective (below)
1  BIOL 2001 Bibliographic Practicum
4  † PHYS 2033/ PHYS 2031L College Physics II
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
14-15  Semester Hours

Fall Semester Year 4

3-4  † BIOL 3000-4000 Level Elective from Microbiology group (below)
3-4  † BIOL 3000-4000 Level Elective
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
15-17  Semester Hours

Spring Semester Year 4

3-4  † BIOL 3000-4000 Level Elective from Zoology group (below)
3-4  † BIOL 3000-4000 Level Elective (below)
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
15-17  Semester Hours
124  Total Hours

†  Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter
‡  Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

BIOL 3000-4000 Level Electives are grouped below according to the general subject area. A minimum of 8-10 hours of 3000-4000-level BIOL electives are required and a minimum of one course from each of the three general areas must be taken.

BIOL Botany Group: (Pre-requisite requirement in italics)
BIOL 4104 Taxonomy of Flowering Plants (BIOL 2323 and BIOL 3023)
BIOL 4114 Dendrology (BIOL 3863)
BIOL 4304/4300L Plant Physiology (BIOL 1543/1541L, BIOL 1603/1611L and general chemistry)
BIOL 4404/4400L Comparative Botany (BIOL 2533)
BIOL 4424 Mycology (BIOL 1543/1541L and BIOL 1603/1611L)
BIOL 4523 Plant Ecology (BIOL 3863)
BIOL 4724 Protistology (Prequisite or Corequisite BIOL 3023, Prerequisite BIOL 2533 and BIOL 2323)

BIOL Microbiology Group: (Pre-requisite requirement in italics)
BIOL 3123 Prokaryote Biology (BIOL 2533)
BIOL 4003 Lab in Prokaryote Biology (BIOL 3123)
BIOL 4124 Food Microbiology (BIOL 2533 and CHEM 1123 and CHEM 1121L or equivalent)
BIOL 4233 Genomics and Bioinformatics (BIOL 4313)
BIOL 4313 Molecular Cell Biology (BIOL 2533 and BIOL 2323, CHEM 3603/3601L and CHEM 3613/3611L)
BIOL 4443 Molecular Virology (BIOL 4233 or BIOL 2323 and BIOL 4753 or 2533)
BIOL 4703 Mechanisms of Pathogenesis (BIOL 2533)
BIOL 4713/4711L Basic Immunology (BIOL 2323 and BIOL 2533)
BIOL 4753 General Virology (BIOL 2533)
BIOL 490V Special Topics in Microbiology

BIOL Zoology Group: (Pre-requisite requirement in italics)
BIOL 3353 Mechanics of Human Movement (BIOL 2443/2441L)
BIOL 4234 Comparative Physiology (BIOL 2533 and CHEM 3613/3611L)
BIOL 4263 Cell Physiology (BIOL 2533, CHEM 3813 and PHYS 2033)
BIOL 4353 Ecological Genetics (BIOL 2323/2321L, MATH 2554 and STAT 2023 or equv.)
BIOL 4433 Principles of Evolution (BIOL 2323 and BIOL 3863)
BIOL 4463 Physiological Ecology (BIOL 3863 and BIOL 4234 and its lab component)
BIOL 4513/4511L Population Ecology (BIOL 3863)
BIOL 4554 Developmental Biology (BIOL 2323 and BIOL 2533)
BIOL 4613 Primate Adaptation and Evolution (BIOL 3023 or ANTH 4613)
BIOL 4724 Protistology (Preq or Corequisite BIOL 3023, Prerequisite BIOL 2533 and BIOL 2323)
BIOL 4734 Wildlife Management Techniques (BIOL 3863)
BIOL 4743 Fish Biology (12 hours of BIOL credit)
BIOL 4763 Ornithology (BIOL 3863)
BIOL 4793 Introduction to Neurobiology (BIOL 2533)
BIOL 4814 Limnology (BIOL 3863 and CHEM 1123/1121L)
BIOL 4833 Animal Behavior (BIOL 3863)
BIOL 4844 Community and Ecosystem Ecology (BIOL 3863)
BIOL 485V Field Ecology (BIOL 3863)
BIOL 490V Special Topics in Microbiology

Requirements for Departmental Honors in Biology: The biological sciences honors program is designed to provide students an opportunity to investigate questions in biology through an expanded reading program and research experience. Biological science majors may apply to enter the program between the second semester of the sophomore year and the end of the junior year. Application is made through both Honors Studies (MAIN 517) and the Department of Biological Sciences (SCEN 601). Applicants must have a 3.5 grade-point average. Students should consult with their adviser to identify and contact a potential faculty research mentor. The student's research activities will then be directed by the departmental faculty member who agrees to sponsor the student.

Students may enroll for up to four hours of credit in BIOL 399VH during the junior year and up to eight hours of credit in BIOL 499V during the senior year. A maximum of six of these credits may be applied toward a major. Participants must complete and defend an honors thesis and take 12 hours in Honors Studies, which may include six hours of thesis. The honors thesis is based on an original research project and presented orally before a committee composed of two faculty from the biological sciences, a person from outside the biological sciences, and a representative from the Honors Council. This committee makes a recommendation concerning the award of the honors distinction to the Honors Council. Students who
successf ully complete the departmental honors program usually graduate as “Departmental Scholar Cum Laude.” Higher degree distinctions are recommended only in exceptional cases and are based upon the candidate’s entire involvement in the honors program. Completion of an honors thesis fulfills the writing requirement in biological sciences, which precludes credit for BIOL 498V (Senior Thesis) for the same body of work.

Writing Requirement: The college writing requirement for majors in biology may be met by one of the following:
1. Completion of an honors thesis.
2. Completion of a senior thesis (BIOL 498V) supervised by a faculty member in biological sciences.
3. Completion of a required term paper with a grade of B or above in a BIOL course numbered 3000 or above on a topic approved by the instructor, or
4. Completion of a paper, supervised by a Biological Sciences faculty member, in Special Problems (BIOL 480V)

Requirements for a Minor in Biology: Students must take BIOL 1543/1541L, or equivalent, and one course from five of the six areas of specialization outlined in the requirements for a B.A. degree in biology. Students must notify the Fulbright College Dean’s Office of their intent to minor in biology using the Program Update form.

Biology (B.A. or B.S.) Life/Earth Science Teacher Licensure Requirements: Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students interested in teaching science in middle school should consult with a middle level adviser in the College of Education and Health Professions.

For information on advanced degrees in biology, see the Graduate School Catalog.

SEE PAGE 322 FOR BIOLOGY (BIOL) COURSES

BUSINESS MINOR FOR NON-BUSINESS STUDENTS

The Sam M. Walton College of Business minor requires completion of a minimum of 21 required hours of study (including equivalencies) with at least 50 percent of the courses applied toward the minor taken in residence. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

Fulbright College students seeking a minor in the Walton College must notify the Fulbright College Dean’s Office (MAIN 525).

All students seeking a business minor are required to complete the Walton College computer competency requirement (WCOB 1120) and the following courses:
- ECON 2143 Basic Economics Theory and Practice
- WCOB 1023 Business Foundations
- WCOB 1033 Data Analysis and Interpretation or equivalent

In addition, students must select and complete one of the following concentrations:

Concentration 1 – General Business
Select 12 hours from the following courses:
(at least 6 hours must be 3000-4000 level)
- WCOB 1012 Legal Environment of Business
- WCOB 2013 Markets and Consumers
- WCOB 2023 Production and Delivery of Goods and Services
- WCOB 2033 Acquiring and Managing Human Capital
- WCOB 2043 Acquiring and Managing Financial Resources
- Plus any other 3000- or 4000-level Walton College course

Concentration 2 – Accounting
- ACCT 3013 Accounting View of Economic Events
- ACCT 3613 Managerial Uses of Accounting Information
- Plus an additional six hours selected from the following:
  - ACCT 3533 Accounting Technology
  - ACCT 3723 Intermediate Accounting I
  - ACCT 3843 Fundamentals of Taxation

Concentration 3 – Business Economics
- ECON 4333 Economics of Organizations
- Plus an additional 9 hours of 3000- or 4000-level business economics courses

Concentration 4 - Enterprise Resource Planning
- WCOB 2013 Markets and Consumers
- WCOB 2043 Acquiring and Managing Financial Resources
- WCOB 4213 ERP Fundamentals
- Plus an additional three hours from the following:
  - ISYS 4233 Seminar in ERP Development
  - ISYS 4293 Business Intelligence
  - WCOB 4223 ERP Configuration and Implementation

Concentration 5 - Enterprise Systems
- ISYS 4453 Introduction for Enterprise Servers
- ISYS 4463 Enterprise Transaction Systems
- Plus an additional six hours from the following:
  - ISYS 4133 Business Development
  - ISYS 4233 Seminar in ERP Development
  - ISYS 4293 Business Intelligence
  - WCOB 4213 ERP Fundamentals
  - WCOB 4223 Configuration and Implementation

Concentration 6 – Finance
- WCOB 2043 Acquiring and Managing Financial Resources
- Plus an additional nine hours of 3000- or 4000-level finance courses.

Concentration 7 – Information Systems
- ISYS 3293 System Analysis and Design
- ISYS 3393 Business Applications and Visual Basic
- Plus an additional six hours from the following:
  - WCOB 4213 ERP Fundamentals
  - WCOB 4223 Configuration and Implementation
  - One three hour 4000 level ISYS class

Concentration 8 – International Business
Select 12 hours from the following:
- ECON 3843 Economic Development, World Bank, and Multilateral Finance
- ECON 3853 Emerging Markets
- ECON 3933 Japanese Economics
- ECON 4633 International Trade Policy
- ECON 4643 International Macroeconomics and Finance
- ECON 4653 Global Competition and Strategy
- ECON 468V International Economics and Business Seminar
- FINN 3703 International Finance
- MGMT 4583 International Management
- MKTG 4633 Global Marketing
- TLOG 4643 International Transportation Logistics

Concentration 9 – Management
- MGMT 4243 Ethics and Corporate Responsibility
- Plus an additional 9 hours of 3000/4000 level management courses (may include WCOB 2033, Acquiring and Managing Human Capital or MGMT 3563, Organizational Behavior)

Concentration 10 – Marketing
- MKTG 3433 Introduction to Marketing Strategy
- Plus an additional 9 hours selected from the following:
students seeking a minor should note the following:

Chemistry and Biochemistry (CHBC)

Bill Durham
Chair of the Department
113 Chemistry
479-575-4648
http://www.uark.edu/depts/cheminfo/uarkchem/cheminfo@uark.edu

Distinguished Professors: Gawley, Millett, Pulay, Schäfer, Wilkins
University Professors: Hinton, Koeppe, Sears
University Professor Emeritus: Cordes, Fry
Professors: Bobbitt, Davis, Durham, Fritsch, Geren, Peng
Professors Emeriti: Byholder, Howick, Johnson, Thoma
Associate Professors: Allison, McIntosh, Paul, Sakon, Stites
Assistant Professors: Adams, Kumar, Tian, Vicic
Adjunct Professor: Becker
Adjunct Associate Professors: Edkins, Turnbull

Requirements for a B.S. degree with a Major in Chemistry: A minimum of 40 semester hours in chemistry including CHEM 1213/1211L, CHEM 1223/1221L, or CHEM 1103/1101L, CHEM 1213/1211L, CHEM 2262, CHEM 2272, CHEM 3504, CHEM 3512L, CHEM 3514, CHEM 3703/3702L, CHEM 3713/3712L, CHEM 4123, CHEM 4213/4211L, CHEM 4723, and at least one additional advanced lecture course with 3514 as a prerequisite is required. On the basis of scores on the Freshman Chemistry Proficiency Examination, a student may be advised to enroll in CHEM 1123/1121L, and upon receiving a grade of "C" or better in these courses, will also receive credit for CHEM 1103/1101L. A minimum of 18 hours of science outside of chemistry and including mathematics through MATH 2574 and physics through PHYS 2074 are required. These mathematics and physics courses are prerequisites for some advanced courses and should be scheduled early in the student’s program. Some work in the biological sciences is recommended. This program meets the minimum requirements for certification by the American Chemical Society if CHEM 3813 (or CHEM 5813/5843) is included. Sample schedules may be obtained from the department of chemistry and biochemistry. Prospective students should consult a departmental adviser.

Chemistry B.S. Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

This program meets the minimum requirements for certification by the American Chemical Society if CHEM 3813 (or CHEM 5813/5843) is included.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
</tr>
<tr>
<td>4 †MATH 2554 Calculus I</td>
</tr>
<tr>
<td>4 CHEM 1213/1211L Chem for Majors I or CHEM 1103/1101L University Chem I</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>17 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
</tr>
<tr>
<td>4 †MATH 2564 Calculus II</td>
</tr>
<tr>
<td>4 CHEM 1223/1221L Chem for Majors II or CHEM 1123/1121L University Chem II</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>17 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 †MATH 2674 Calculus III</td>
</tr>
<tr>
<td>4 †PHYS 2054/2050L University Physics I</td>
</tr>
<tr>
<td>5 †CHEM 3703/3702L Organic Chemistry I</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>16 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 †PHYS 2074/2070L University Physics II</td>
</tr>
<tr>
<td>4 †CHEM 3713/3712L Organic Chemistry II for majors</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>3 Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>17 Semester Hours</td>
</tr>
</tbody>
</table>
### Chemistry B.S. Eight-Semester Degree Program with Biophysical Option

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

### Requirements for a B.S. degree with a Major in Chemistry, Biophysical Option: A minimum of 43 semester hours in chemistry including CHEM 1213/1211L, CHEM 1223/1221L, (or CHEM 1103/1101L, CHEM 1123/1121L), CHEM 2262, CHEM 2272, CHEM 3504, CHEM 3603/3601L-3613/3611L or CHEM 3703/3702L, CHEM 3713/3712L, CHEM 3514/3512L, CHEM 4213/4211L, CHEM 4853 or completion of a senior thesis based on independent research wherein at least 1 credit hour is earned in CHEM 500V (chemistry research) and/or CHEM 4981 (senior thesis) during each of 3 different semesters, and 6 hours from CHEM 5813-5843 or CHEM 3813-3873, MATH 2554 and MATH 2564, PHYS 2054/2050L and PHYS 2074/2070L, and 11 hours from the biological sciences, to include BIOL 1543/1541L, BIOL 2533/2531L, and one additional lecture course numbered above 3000. The mathematics and physics courses are prerequisites for some advanced courses and should be scheduled early in the student's program.

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>14</td>
</tr>
</tbody>
</table>

### Spring Semester Year 1

| 3 | ENGL 1023 Composition II |
| 4 | †MATH 2564 Calculus II |
| 4 | CHEM 1123/1121L University Chemistry II |
| 3 | Core from areas a, b, c, or e (as needed) |
| 17 | Semester Hours |

### Fall Semester Year 2

| 4 | †CHEM 3603/3601L Organic Chemistry I |
| 4 | †PHYS 2054/2050L University Physics I |
| 4 | BIOL 1543/1541L Principles of Biology |
| 3 | Core from areas a, b, c, or e (as needed) |
| 15 | Semester Hours |

### Spring Semester Year 2

| 4 | †CHEM 3613/3611L Organic Chemistry II |
| 4 | †PHYS 2074/2070L University Physics II |
| 4 | †BIOL 2533/2531L Cell Biology |
| 2 | †CHEM 2262 Analytical Chemistry |
| 3 | †Core from area f (if needed) or †Advanced Level Elective |
| 17 | Semester Hours |

### Fall Semester Year 3

| 2 | †CHEM 2272 Analytical Chemistry Lab |
| 4 | †CHEM 3504 Physical Chemistry I |
| 3 | Core from area f (if needed) or †Advanced Level Elective |
| 3 | Core from areas a, b, c, or e (as needed) |
| 3 | Core from areas a, b, c, or e (as needed) |
| 15 | Semester Hours |

### Spring Semester Year 3

| 6 | †CHEM 3514/3512L Physical Chemistry II |
| 4 | †CHEM 4213/4211L Instrumental Analysis |
| 3 | Core from areas a, b, c, or e (as needed) |
| 3 | Core from areas a, b, c, or e (as needed) |
| 16 | Semester Hours |

### Fall Semester Year 4

| 3 | †CHEM 5813 Biochemistry I |
| 3 | †BIOL 3000/4000 Level Elective |
| 3 | Core from areas a, b, c, or e (as needed) |
| 3 | Core from areas a, b, c, or e (as needed) |
| 3 | Core from areas a, b, c, or e (as needed) |
| 15 | Semester Hours |

### Spring Semester Year 4

| 3 | †CHEM 5843 (4843H) Biochemistry II |
| 3 | †CHEM 4853 Biochemistry Techniques |
| 3 | Core from areas a, b, c, or e (as needed) |
| 3 | Core from areas a, b, c, or e (as needed) |
| 3 | General Elective |
| 15 | Semester Hours |

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
(chemistry research) and/or CHEM 498V (senior thesis) during each of 3 different semesters, CHEM 5813-5843 or CHEM 3813-4723, and either CHEM 4213/4211L or CHEM 4123, additional required courses to include MATH 2554 and 2564, either PHYS 2013/2011L, PHYS 2033/2031L or PHYS 2054/2050L, PHYS 2074/2070L, and 15 hours of biological sciences to include BIOL 1543/1541L, BIOL 2533/2531L, BIOL 2013/2011L, and either BIOL 4233 or BIOL 2323. The mathematics and physics courses are prerequisites for some advanced courses and should be scheduled early in the student’s program.

Chemistry B.S. Eight-Semester Degree Program with Biochemistry Option

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

This program meets the minimum requirements for certification by the American Chemical Society if CHEM 3813 (or CHEM 5813/5843) is included.

### Spring Semester Year 4

<table>
<thead>
<tr>
<th>3</th>
<th>CHEM 4843H Biochemistry II</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>‡‡‡CHEM 4853 Biomechanical Techniques</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
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<tr>
<td>3</td>
<td>General Elective</td>
</tr>
<tr>
<td>0–2</td>
<td>General Elective (at least two hours if needed to complete 124-hour requirement)</td>
</tr>
<tr>
<td>15–17 Semester hours</td>
<td></td>
</tr>
</tbody>
</table>

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>3</th>
<th>CHEM 4813H Biochemistry I</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BIOL 2323 General Genetics or ‡‡‡BIOL 4233 Microbial Genetics</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
</tr>
<tr>
<td>15</td>
<td>Semester hours</td>
</tr>
</tbody>
</table>

### Requirements for a B.S. degree with a Major in Chemistry, International Option

- The B.S. degree with a Major in Chemistry, International Option is designed to allow students from Dublin City College and the University of Regensburg to obtain dual degrees from their home institution and the University of Arkansas, Fayetteville.
- Admission requirements: Participants must be pursuing the equivalent of a B.S. degree in Chemistry and be students at Dublin City College or the University of Regensburg. Participants must be pre-approved by the on-site transatlantic dual-degree program coordinator of the home institution. Students must officially apply for admission to the University of Arkansas, present all required academic credentials and meet the requirements for admission of international students as found on page 18.
- A minimum of 40 semester hours in chemistry including CHEM 1213/1211L, CHEM 1223/1221L, CHEM 2262, CHEM 2272, CHEM 3504, CHEM 3512L, CHEM 3514, CHEM 3703/3702L, CHEM 3713/3712L, CHEM 4123, CHEM 4213/4211L, CHEM 4723, and at least one additional advanced lecture course with 3514 as a prerequisite is required. On the basis of scores on the Freshman Chemistry Proficiency Examination, a student may be advised to enroll in CHEM 1123/1121L, and upon receiving a grade of “C” or better in these courses, will also receive credit for CHEM 1103/1101L. A minimum of 18 hours of science outside of chemistry and including mathematics through MATH 2574 and physics through PHYS 2074 are required. These mathematics and physics courses are prerequisites for some advanced courses and should be scheduled early in the student’s program. Some work in the biological sciences is recommended. This program meets the minimum requirements for certification by the American Chemical Society if CHEM 3813 (or CHEM 5813/5843) is included.
- Students in the international option are also required to complete a
University of Arkansas State Core for International Option students: All state institutions of higher education in Arkansas have a 35-hour minimum core requirement with specified hours in each of six academic areas. This core includes 6 credit hours of English Composition, 6 credit hours of Fine Arts/Humanities, 9 credit hours of Social Science, 3 credit hours of American History, 8 credit hours of science, and 3 credit hours of mathematics. The specific courses at the University of Arkansas that meet those requirements are listed on page 40. It is expected that students from Dublin City College and the University of Regensburg will most likely meet the UA State Core requirements for math and science from transfer credits. The additional English, fine arts and humanities, U.S. History, and Social Science requirements can be met through successful scores on CLEP examinations (page 47), International Baccalaureate exams (page 48), credit by examination conducted by the UA Department of Foreign Languages (cost is $25 per exam and a grade of “B” or better on the exam is required for credit), and through Continuing Education Independent Study/Correspondence coursework. (No more than 6 hours of Independent Study/Correspondence coursework may be applied to a University of Arkansas degree in the final 30 hours of degree coursework.) It may be necessary for Dublin/Regensburg students to enroll in coursework at the University of Arkansas, Fayetteville campus during the first and/or second summer terms immediately following the spring participating semester to complete state core requirements.

Fulbright College Graduation Completion Requirements for International Option students:
1. A minimum of 124 University of Arkansas degree credit hours are required for a B.S. with a Major in Chemistry, International Option.
2. Residency Requirement – All students in the International Option must complete the minimum residency requirement of at least 30 semester hours in courses offered on the campus in Fayetteville. Fulbright College requires no fewer than 30 hours of credit must be in courses offered by Fulbright College. The College also has a “24 hour rule” that requires a student to complete a minimum of 24 credit hours at the 3000-level or higher, taken from courses in Fulbright College.
3. All other Fulbright College of Arts & Sciences Graduation requirements apply. See pages 122.
4. Fulbright College of Arts & Sciences Bachelor of Science degree requirements. See page 124.

Requirements for a B.A. degree with a Major in Chemistry: Pre-medical students, prospective secondary school science teachers, and others who do not intend to pursue professional careers in chemistry may satisfy the requirements by completing CHEM 1213/1211L, CHEM 1223/1221L, (or CHEM 1103/1101L, CHEM 1123/1121L), CHEM 2262, CHEM 2272, and 18 additional semester hours in chemistry to include CHEM 3703/3702L-3713/3712L or CHEM 3603/3601L-3613/3611L, and either CHEM 3453/3451L or the combination CHEM 3504-3514-3512L and two additional lecture courses numbered above 3000. PHYS 2033/2031L and MATH 2554 or MATH 2043 are prerequisites for CHEM 3453, and PHYS 2074 and MATH 2574 are prerequisites for the alternate physical chemistry course sequence CHEM 3504-3514/3512L. These physics and mathematics prerequisite requirements are substantial, and these courses and their prerequisites should be scheduled early in the student's program. Sample schedules may be obtained from the department of chemistry and biochemistry. Prospective students should consult a departmental adviser.

### Chemistry B.A. Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

#### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>ENGL 1013</td>
<td>Composition I</td>
</tr>
<tr>
<td>3-4</td>
<td>MATH 1203</td>
<td>(if required) or MATH 2043 or MATH 2554 (as needed)*</td>
</tr>
<tr>
<td>4</td>
<td>CHEM 1213/1211L</td>
<td>CHEM for Majors I or CHEM 1103/1101L</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d, e (as needed)</td>
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</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d, e (as needed)</td>
<td></td>
</tr>
<tr>
<td>16-17</td>
<td>Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>
**Spring Semester Year 4**

<table>
<thead>
<tr>
<th>3</th>
<th>‡‡CHEM 4853 Biochemical Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>‡‡CHEM 4843H or ‡‡3113 Intermediate Inorganic Chem or ‡‡4043 Environmental Chem</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>15</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>124</td>
<td>Total Hours</td>
</tr>
</tbody>
</table>

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

* Depending on placement; MATH 2043 Survey of Calculus is another option for this degree. Student may also choose to take MATH 1285 Precalculus in Fall Semester 1 and MATH 2554 Calculus in Spring Semester 1. Another option is to complete MATH 1203 in Fall Semester 1 and MATH 2043 Survey of Calculus in Spring Semester 1.

### Requirements for a B.A. degree with a Major in Chemistry, Biochemistry Option:

A minimum of 32 semester hours in chemistry including CHEM 1213/1211L, CHEM 1223/1221L, (or CHEM 1103/1101L, CHEM 1123/1121L), CHEM 2262, CHEM 2272, either CHEM 3453/3451L or CHEM 3504-3514-3512L, either CHEM 3603/3601L-3613/3611L or CHEM 3703/3702L-3713/3712L, CHEM 4853 or completion of a senior thesis based on independent research wherein at least 1 credit hour is earned in CHEM 500V (chemistry research) and/or CHEM 498V (senior thesis) during each of 3 different semesters, and either CHEM 5813-5843 or CHEM 3813-4213/4211L or CHEM 3813-4123 or CHEM 3813-4723, MATH 2554 or MATH 2043, PHYS 2013/2011L-2033/2031L or 2054-2074, and 11 hours from the biological sciences, at least 3 hours of which must be upper-level courses. The mathematics and physics courses are prerequisites for some advanced courses and should be scheduled early in the student's program.

### Chemistry B.A. Eight-Semester Degree Program with Biochemistry Option

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>3</th>
<th>ENGL 1013 Composition I</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4</td>
<td>‡‡MATH 2554 Calculus I or other mathematics course as advised for major*</td>
</tr>
<tr>
<td>4</td>
<td>CHEM 1213/1211L, Chem for Majors I or 1103/1101L, University Chem I</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>16-17</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>3</th>
<th>ENGL 1023 Composition II</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4</td>
<td>‡‡MATH 2564 Calculus II* (or other math as needed) or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>4</td>
<td>CHEM 1223/1221L, Chem for Majors II or 1123/1121L, University Chem II</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>16-17</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>4</th>
<th>BIOL 1543/1541L Principles of Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>‡‡PHYS 2054/2050L University Physics I or ‡‡PHYS 2013/2011L College Physics I</td>
</tr>
<tr>
<td>3</td>
<td>‡Core from area g (if needed) or Advanced Elective</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>17</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>

### Spring Semester Year 2

| 4 | ‡‡CHEM 2262/2272 Analytical Chem |
| 4 | ‡‡PHYS 2074/2070L University Physics II or ‡‡PHYS 2033/2031L College Physics II |
| 3 | Biology Elective |
| 3 | ‡Core from area g (if needed) or Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 17 | Semester Hours |

### Fall Semester Year 3

| 5 | ‡‡CHEM 3703/3702L Organic Chem I for Majors |
| 4 | ‡‡CHEM 3453/3451L Elements of Physical Chem or CHEM 3504 Physical Chem |
| 3 | ‡Core from area g (if needed) or Core from areas a, b, c, d or e (as needed) |
| 4 | ‡Upper Level Biology Elective |
| 16 | Semester Hours |

### Spring Semester Year 3

| 3 | ‡‡CHEM 3813 Introduction to Biochemistry or ‡‡CHEM 4813H |
| 3 | ‡‡CHEM 4123 Advanced Inorganic Chem I |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 15 | Semester Hours |

### Fall Semester Year 4

| 3 | ‡‡CHEM 3813 Introduction to Biochemistry or ‡‡CHEM 4813H |
| 3 | ‡‡CHEM 4123 Advanced Inorganic Chem I |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 15 | Semester Hours |

### Spring Semester Year 4

| 3 | ‡‡CHEM 4853 Biochemical Techniques |
| 3 | ‡‡CHEM 4843H or ‡‡3113 Intermediate Inorganic Chem or ‡‡4043 Environmental Chem |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 15 | Semester Hours |
| 124 | Total Hours |

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

* Depending on placement; MATH 2043 Survey of Calculus is another option. Student may also choose to take MATH 1285 Precalculus in Fall Semester 1 and MATH 2554 Calculus in Spring Semester 1. Another option is to complete MATH 1203 in Fall Semester 1 and MATH 2043 Survey of Calculus in Spring Semester Year 1.

### Writing Requirement:

Chemistry majors will satisfy the Fulbright College writing requirement by satisfactory completion of the formal research/analytical reports required in Physical Chemistry Laboratory, CHEM 3451L or CHEM 3512L.

### Requirements for Departmental Honors in Chemistry:

Students with good academic backgrounds and strong interests in research are encouraged to participate in the department of chemistry and biochemistry honors program. Entrance into the program is normally during the sophomore year or the first semester of the junior year, and a minimum cumulative GPA of 3.5 is required. Entrance is initiated by consulting the faculty academic adviser, who will help arrange conferences with potential faculty research project advisers. When there is agreement between the student and the adviser on a research project or area, an Honors Advisory Committee is set up to supervise the honors candidate's...
program. The heart of the program is the research project, but students are encour-
egaged to broaden their experience beyond required courses within chemistry, the
natural sciences, the social sciences, and the humanities. Participation in Honors
Colloquia, honors sections of regular courses, and chemistry departmental
and divisional seminars is especially recommended. All honors candidates enroll in
the spring semester Honors Seminar (CHEM 4011H), and senior honors stu-
dents must make at least one seminar presentation. All honors candidates will be
required to complete and defend an honors thesis and take 12 hours (which may
include 6 hours of thesis) in Honors Studies. The thesis is required in the spring
semester of the senior year, followed by an oral presentation. On the basis of these
written and oral reports and their evaluation of all aspects of the student’s honor
program, the candidate’s Honors Advisory Committee will recommend whether
or not the distinction “Chemistry or Biochemistry Scholar Cum Laude” should be
awarded. Higher degree distinctions are recommended only in truly exceptional
cases and are based upon the whole of the candidate’s program of honors studies.

Requirements for a Minor in Chemistry: 18 hours of courses above
the 1000 level including CHEM 2262, CHEM 2272, CHEM 3603/3601L,
CHEM 3613/3611L, CHEM 3453, and a 3-hour course at the 3000-4000
level. A student must notify the department of his or her intent to minor.

Chemistry (B.A. or B.S.) Physical/Earth Science Teacher Licensure
Requirements:
Please refer to the Secondary Education Requirements for Fulbright Col-
lege Students on page 118.
Students wanting to teach science in middle school should consult with a
middle level adviser in the College of Education and Health Professions.
SEE PAGE 327 FOR CHEMISTRY (CHEM) COURSES

CLASSICAL STUDIES (CLST)

Daniel B. Levine
Chair of Studies
502 Kimpel Hall
479-575-2951
http://www.uark.edu/ua/metis2/ and http://www.classics.uark.edu
• Professors Levine, Spellman, Waligorski
• Associate Professors Coon, Fredrick
• Assistant Professor Pappas

Requirements for a Major in Classical Studies: The college offers a major
in classical studies leading to the Bachelor of Arts degree. Students should select
appropriate courses from the following:
1. 15 hours of Ancient Greek or 15 hours of Latin.
2. 18 hours of additional work in classical languages and/or
specific classical studies-related electives, to be selected from the following
courses: ARCH 2233, ARHS 4833, ARHS 4843, CLST 1003, CLST
1013, HIST 4003, HIST 4013, HIST 4023, HIST 4033, HIST 4053,
PHIL 4003, PHIL 4013, PHIL 4023, PLSC 3953, WLIT 2323.
No more than nine hours of electives from the medieval period may be
applied to the major requirements.
3. Three hours of a classical studies colloquium (CLST 4003H).

Classical Studies Eight-Semester Degree Program
Students wishing to follow the eight-semester degree plan should see page 42
in the Academic Regulations chapter for university requirements of the program.
The following eight-semester plan refers to additional B.A. Core Requirement
Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core
requirement hours may vary by individual, based on placement and previous credit
granted. Once all core requirements are met, students may substitute a three-hour
(or more) general elective in place of a core area.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>15 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3 GREK or LATN 1003 Elementary Classical Language I</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, e, or f (as needed)</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
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</table>

### Spring Semester Year 1

<table>
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<tr>
<th>15 Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
</tr>
<tr>
<td>3 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, d, or e (as needed)</td>
</tr>
<tr>
<td>3 GREK or LATN 1013 Elementary Classical Language II</td>
</tr>
<tr>
<td>3 CLST 1013 Introduction to Classical Studies: Rome</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
</tr>
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</table>

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>16 Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>3 GREK or LATN 2003 Intermediate Classical Language I</td>
</tr>
<tr>
<td>3 GREK or LATN 1003 Elementary Classical Language I or General Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
</tr>
<tr>
<td>3 CLST 1003 Introduction to Classical Studies: Greece</td>
</tr>
</tbody>
</table>

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 GREK or LATN 2013 Intermediate Classical Language II</td>
</tr>
<tr>
<td>3 GREK or LATN 1013 Elementary Classical Language II or General Elective</td>
</tr>
<tr>
<td>3 Core from area g (if required) or Advanced Level Elective</td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
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<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
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</table>

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †‡ GREK or LATN Advanced Language</td>
</tr>
<tr>
<td>3 GREK or LATN 2003 Intermediate Classical Language I or General Elective</td>
</tr>
<tr>
<td>3 Core from area g (if required) or Advanced Level Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
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<tr>
<td>3 General Elective</td>
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### Spring Semester Year 3

<table>
<thead>
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<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 † CLST 4003H Honors Classical Studies or † Classical Studies Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, d, or e (as needed)</td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
</tr>
</tbody>
</table>

### Fall Semester Year 4

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<thead>
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</thead>
<tbody>
<tr>
<td>3 †‡ Classical Studies Elective</td>
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<tr>
<td>3 †‡ Classical Studies Elective</td>
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<tr>
<td>3 †‡ Classical Studies Elective</td>
</tr>
<tr>
<td>3 †‡ Classical Studies Elective</td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
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### Spring Semester Year 4

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>3 †‡ Classical Studies Elective</td>
</tr>
<tr>
<td>3 †‡ Classical Studies Elective</td>
</tr>
<tr>
<td>3 †‡CLST 4003H Honors Classical Studies (if needed) or †‡ Classical Studies Elective</td>
</tr>
<tr>
<td>3 † Advanced Level Elective</td>
</tr>
<tr>
<td>3 † Upper-Level ARSC Elective</td>
</tr>
</tbody>
</table>

† Meets 40-hour advanced credit hour requirement. See College Academic
Regulations on page 122 of this chapter
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College),
in addition to meeting the 40-hour rule. See College Academic Regulations on
page 122 of this chapter.
**Requirements for a Minor in Classical Studies**: Students should select appropriate courses from the following areas:

1. 9 hours of Ancient Greek or Latin courses numbered above 2000,
2. 6 hours of additional work in classical languages and/or specific classical studies-related electives, to be selected from the following courses: ARCH 2233, ARHS 4833, ARHS 4843, CLST 1003, CLST 1013, HIST 4003, HIST 4013, HIST 4023, HIST 4043, HIST 4053, PHIL 4003, PHIL 4013, PHIL 4023, PLSC 3953, WLIT 2323,
3. Three hours of a classical studies colloquium (CLST 403H).

**Requirements for Honors in Classical Studies**: The Honors Program in Classical Studies gives students of high ability the opportunity to strengthen their study of classics by intensifying their experience with ancient languages and cultures.

In addition to the requirements for graduation with a major in classical studies and the general college requirements for a B.A. degree, honors candidates in classical studies must:

1. be accepted as honors candidates by the Classical Studies Committee,
2. complete at least three semesters in a second classical language,
3. enroll in at least two 1-hour units of CLST 399VH and pursue independent-study topics under the guidance of classical studies faculty,
4. enroll for two hours of CLST 399VH and write an honors thesis, and
5. defend and discuss their entire honors program in an oral examination.

Successful completion of the requirements will be recognized by the award of the distinction “Classical Studies Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies.

SEE PAGE 331 FOR CLASSICAL STUDIES (CLST) COURSES

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**COMMUNICATION (COMM)**

Robert M. Brady  
Chair of the Department  
417 Kimpel Hall  
479-575-3046  
http://www.uark.edu/depts/comm/comm@uark.edu  
• Professors Frentz, Smith (S.), Webb, Wicks  
• Professor Emeritus Bailey, Rea, Rogers  
• Associate Professors Allen, Amason, Brady, Rosteck, Scheide, Warren  
• Assistant Professor Corrigan  
• Research Assistant Professor Smith (L.)  
• Assistant Professor Emeritus Galloway  
• Adjunct Assistant Professor Cowling  
• Visiting Assistant Professor Walker

As a subject for academic study, communication bridges the humanities and the social sciences. It focuses on relationships – personal, group, and societal – and the factors and processes that affect important relationships. Friendships and families, business relationships and political systems, cultural interaction and technological advances are important areas of study in communication. Communication students may concern themselves with the dynamics of interpersonal persuasion, the effects of media technologies, the nature of gender stereotypes, the function of roles within the family, the structure of organizational authority, the influence of cultural myths, the impact of social movements, and the history of rhetoric. Because the program offers many diverse interests, there is a place for anyone with a genuine curiosity about human communication and its effect upon society.

Communication majors from recent graduating classes now hold responsible positions in government and public affairs, in management, marketing, and public relations within private business, and in television and mass media organizations. Many others are successfully pursuing further education in graduate and professional schools.

The department of communication offers general studies of the discipline, as well as concentration in three specific emphasis areas:

1. rhetoric and public communication,
2. interpersonal, small group, and organizational communication, and
3. mass communication.

Students may also select a program for acquisition of teaching certification in the field.

**Admission Requirements for a Major in Communication**: For standing as a major, entering freshmen must have ACT composite scores of 20 or higher, and those transferring into the program after the first semester of college study must have a cumulative grade-point average of 2.00 or higher.

**University and College Requirements for a Major in Communication**: 36 semester hours in communication courses, to include COMM 2333, COMM 3343, COMM 3443, COMM 3673, at least 12 additional hours chosen from COMM courses above 3000. Communication courses used to satisfy the college or University Core requirements will not count toward the major. To graduate, students must have a cumulative grade-point average of 2.00 or above within the major.

**Writing Requirement**: The college writing requirement may be satisfied by a research paper submitted for an upper-division communication class and approved by the chairman of the department.

**Requirements for Departmental Honors in Communication**: The Honors Program in communication gives an opportunity for a student to achieve an additional level of intellectual growth and a satisfaction of accomplishment. A student engages in independent research and writing, under the supervision of a member of the communication faculty, and participates in special honors classes, seminars, and colloquia.

Faculty recognize outstanding achievement by a student by recommending that the bachelor's degree in communication be awarded with the distinction “Communication Scholar Cum Laude.” Higher distinctions may be awarded to truly outstanding students based upon the whole of their academic program and quality of honors research.

To enter the Honors Program, a student must possess a 3.5 minimum grade-point average on all academic work and receive the recommendation of a faculty member in communication to the Honors Council of Fulbright College. A student may pursue an independent research program of a historical, critical, descriptive, or experimental nature, within any of the areas of rhetorical or communication theory, history of public address, interpersonal, small-group, or organizational communication, persuasion, argumentation, political communication, freedom of speech, communication education, or in any closely related areas of inquiry. A student interested in mass communications, broadcasting, or film may choose to pursue either a research project or a creative study. In addition to satisfying the general college and departmental requirements for a bachelor's degree, a student must satisfy departmental honors requirements, which include the following:

1. become an honors candidate no later than the first semester of the junior year of study,
2. enroll in COMM 399VH, Honors Course, a minimum of one hour of credit each semester during the junior-senior years,
3. achieve a 3.5 minimum grade-point average in communication,
4. take 12 hours, which may include 6 hours of thesis in Honors Studies, and
5. write and defend before a faculty examining committee a thesis based on the investigative or creative project undertaken in COMM 399VH.

For a full description of the Honors Program and its requirements, consult with an adviser in the department of communication.
Communication Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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</tr>
<tr>
<td>3 MATH 1203 (If required) or ♠MATH 2043, 2053, 2183 or 2554</td>
<td></td>
</tr>
<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas b, c, d or e (as needed)</td>
<td></td>
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<tr>
<td>3 Core from areas b, c, d or e (as needed)</td>
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<tr>
<td>♠ 15 Semester Hours</td>
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<tr>
<td>Spring Semester Year 1</td>
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</tr>
<tr>
<td>3 ENGL 1023 Composition II</td>
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</tr>
<tr>
<td>3-4 ♠MATH 2043, 2053, 2183 or 2554 or Core from areas b, c, d or e (as needed)</td>
<td></td>
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<tr>
<td>3 Core from areas b, c, d or e (as needed)</td>
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<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
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<td>3 Core from areas b, c, d or e (as needed)</td>
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</tr>
<tr>
<td>♠ 16-17 Semester Hours</td>
<td></td>
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<tr>
<td>Fall Semester Year 2</td>
<td></td>
</tr>
<tr>
<td>3 COMM 2333 Comm Research or any 2000 level COMM class</td>
<td></td>
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<tr>
<td>4 Core from area f (as needed)</td>
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<tr>
<td>3 Core from areas b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas b, c, d or e (as needed)</td>
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<tr>
<td>3 COMM 2303 Fundamentals of Communication</td>
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<tr>
<td>♠ 16 Semester Hours</td>
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<tr>
<td>Spring Semester Year 2</td>
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<tr>
<td>♠ Core from area g (if required) or ♠Advanced Level Elective</td>
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<tr>
<td>♠ COMM 2333 Comm Research or any 2000, ♠3000 or ♠4000 level class</td>
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<tr>
<td>3 Core from areas b, c, d or e (as needed)</td>
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<td>4 Core from area f (as needed)</td>
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<td>♠ 16 Semester Hours</td>
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<tr>
<td>Fall Semester Year 3</td>
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<tr>
<td>♠ COMM Group A (below) or any ♠3000 or ♠4000 level class</td>
<td></td>
</tr>
<tr>
<td>♠ COMM Group A (below) or any ♠3000 or ♠4000 level class</td>
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<tr>
<td>♠ Core from area g (if required) or ♠Advanced Level Elective</td>
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<td>♠ Core from areas b, c, d or e (as needed)</td>
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<td>♠ COMM Group A (below, as needed) or any ♠3000 or ♠4000 level class</td>
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<tr>
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<td>♠ Core from areas b, c, d or e (as needed)</td>
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<td>♠ 15 Semester Hours</td>
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<tr>
<td>Fall Semester Year 4</td>
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<td>♠ COMM Group A (below, as needed) or any ♠3000 or ♠4000 level class</td>
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<tr>
<td>♠ COMM 5800 or ♠4000 level class</td>
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<td>♠ Core from areas b, c, d or e (as needed)</td>
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</tr>
<tr>
<td>♠ General Electives</td>
<td></td>
</tr>
<tr>
<td>♠ 16 Semester Hours</td>
<td></td>
</tr>
<tr>
<td>Spring Semester Year 4</td>
<td></td>
</tr>
<tr>
<td>♠ COMM 3000 or ♠4000 level class</td>
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<tr>
<td>♠ COMM 3000 or ♠4000 level class</td>
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<tr>
<td>♠ COMM 3000 or ♠4000 level class</td>
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<thead>
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<tbody>
<tr>
<td>3</td>
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<td>General Elective</td>
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<td>124</td>
<td>Total Hours</td>
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</tbody>
</table>

♦ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Communication Group A
- COMM 3343 Contemporary Communication Theory
- COMM 3443 Introduction to Rhetorical Theory
- COMM 3673 Mediated Communication

Requirements for a Minor in Communication: 18 hours including COMM 2303 and COMM 2323. At least 9 hours must be numbered 3000 or above. A student should consult with an adviser in the department of communication for the selection of appropriate courses. A student must notify the department of his or her intent to minor.

Communication (B.A.) Drama/Speech Teacher Licensure Requirements:
- Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

SEE PAGE 332 FOR COMMUNICATION (COMM) COURSES

COMPUTER SCIENCE AND COMPUTER ENGINEERING

Susan Gauch
Head of the Department
504 JB Hunt Center for Academic Excellence
479-575-6197
- Professors Apon, Crisp, Deaton, Gauch (J.), Gauch (S.), Li, Panda, Skeith, Thompson (C.)
- Associate Professors Beavers, Parkerson, Thompson (D.)
- Assistant Professors Di, Shen

The department offers the Bachelor of Science in Computer Engineering, Bachelor of Science in Computer Science, Bachelor of Arts in Computer Science, and graduate degrees in computer science and computer engineering. The Bachelor of Science degrees for this department are listed in the College of Engineering section of this catalog. The graduate degrees are described in the Graduate School Catalog.

The educational objectives of the department are to produce graduates who are recruited in a competitive market and make valuable contributions to a wide variety of industries, particularly in computer and information technology, who succeed in graduate or professional studies, who pursue life-long learning and continued professional development, and who undertake leadership roles in their profession, in their communities, and in the global society.

Requirements for a B.A. degree with a Major in Computer Science:
At least 30 hours in computer science including CSCE 2003/2001L, CSCE 2013/2011L, CSCE 3143, CSCE 3313, and CSCE 4313 plus 13 hours of electives to be selected from a list of CSCE courses numbered 3000 or higher offered by the department.

The mathematics requirements of the degree are MATH 2554, MATH 2103, MATH 3103.
A 2.0 cumulative GPA on all work completed in the Department of Computer Science is required.
Computer Science B.A. Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<td>4 †MATH 2554</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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</tr>
<tr>
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<th>Spring Semester Year 1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>4 CSCE 2013/2011L Programming Foundations I and Lab</td>
<td></td>
</tr>
<tr>
<td>3 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>17 Semester Hours</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
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</tr>
</thead>
<tbody>
<tr>
<td>4 CSCE 2013/2011L Programming Foundations II and Lab</td>
<td></td>
</tr>
<tr>
<td>†MATH 2103 Discrete Mathematics</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td>16 Semester Hours</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>†Core from area g (if needed) or †Advanced Level Elective</td>
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### Requirements for a Minor in Computer Science


### DRAMA (DRAM)

D. Andrew Gibbs  
Chair of the Department  
619 Kimpel Hall  
479-575-2953  
http://www.uark.edu/depts/drama/  
drama@cavern.uark.edu  
• Professors Brusstar, Gibbs, Gross, Herzberg  
• Associate Professors Martin, Riha, Dwyer  
• Assistant Professors Landman, Stone  
• Instructor Leftwich

The Department of Drama offers the Bachelor of Arts (B.A.) degree in Drama, a broad spectrum program in the context of a liberal arts education, and the Master of Fine Arts (M.F.A.) degree in six concentrations: Acting, Directing, Playwriting, Costume Design, Scene Design and Lighting Design. (Please see the Graduate Catalog for information regarding the MFA degree.) Classes at both undergraduate and graduate levels are focused on providing a strong, professional orientation to theatre performance and technology in conjunction with appropriate research-based course work to address the required foundations in theatre history, dramatic literature and dramatic criticism.

The educational objectives of the Department of Drama are centered on producing graduates prepared to enter the competitive world of professional play production as well as a variety of teaching and research fields. In addition a background in Drama has proven to be a valuable asset to those wishing to pursue a wide range of corporate and industrial occupations.

The play production program is the “laboratory” for study in Drama. To that end the Department produces an average of 10 plays each year involving students in virtually all aspects of production. Auditions are open to all students on campus.

The Department of Drama also supports course work in Dance, offering a variety of basic and advanced studio courses.

### Requirements for a Major in Drama

A minimum of 40 semester hours to include 18 semester hours in courses numbered 3000 and above or the prescribed program for teacher licensure in speech education.

All drama majors must enroll in the following 23 hours:

DRAM 1223 Intro. to Dramatic Art  
DRAM 1313/1311L Stage Technology I and Lab: Costumes and Makeup  
DRAM 1323/1321L Stage Technology II and Lab: Scenery and Lighting  
DRAM 1683 Acting I  
DRAM 2313 Introduction to Theatrical Design (DRAM 1323)  
DRAM 4233 History of the Theatre I (DRAM 1223) Fulfills Fulbright...
College writing requirement
DRAM 4333 History of the Theatre II (DRAM 1223) Fulfills Fulbright College writing requirement

**Group A:** 3 hours to be chosen from:
- DRAM 3653 Directing I (Pre-req: DRAM 1223, 1683, 1313/1311 and 1323/1321 and DRAM 2683)
- DRAM 3683 Stage Management (Pre-req: DRAM 1223, 1683, 1313/1311 and 1323/1321)

**Group B:** 3 hours to be chosen from:
- DRAM 3213 Costume Design I (DRAM 1313/1311)
- DRAM 3733 Stage Lighting I (DRAM 1323/1321)
- DRAM 3903 Theatrical Makeup (DRAM 1313/1311)
- DRAM 4653 Scene Design I (1323/1321)

**Group C:** 3 hours to be chosen from:
- DRAM 3803 Development of the Drama (DRAM 1223)
- DRAM 4733 Dramatic Criticism (DRAM 3803) Fulfills Fulbright College writing requirement
- DRAM 4463 African American Theatre History
- DRAM 491 Special Topics In Script Analysis/Synthesis
- DRAM 4953 Theatre Study In Britain or a dramatic literature, dramatic criticism or theatre history seminar as approved by the Drama adviser.

**Group D:** 6 hours of electives to be chosen from the following: DRAM 2683, any DRAM course 3000 or above with the exception of DRAM 3001 and 3011.

In addition, all drama majors are required to take an additional 2 credit hours of DRAM 3001 Theatre Practicum, one hour to be taken each academic year. Consult Drama Adviser for more information on these credits.

Note: No drama major may present DRAM 1003 to satisfy the college fine arts requirement.

**Writing Requirement:** The Fulbright College research/analytical paper requirement for drama majors will be fulfilled in DRAM 4233, DRAM 4333, DRAM 4453, or DRAM 4733. Satisfactory completion of an honors project or senior thesis may fulfill the requirement.

**Senior Progress Review:** All drama majors are required, in the semester before graduation, to successfully complete the Senior Progress Review, a faculty assessment of each student’s accomplishments in performance and production.

**Requirements for Departmental Honors in Drama:** The Departmental Honors Program in Drama provides upper-division undergraduate students with an opportunity to formally participate in creative and scholarly activities in theatre. Honors candidates engage in independent study and research under the guidance of the drama faculty and participate in special honors seminars and colloquia. Outstanding student achievement will be recognized by awarding the distinction “Drama Scholar Cum Laude” at graduation. In addition to satisfying the general college requirements for the bachelor’s degree with Honors, honors candidates in drama must:

1. become a candidate no later than the second semester of their junior year,
2. enroll in honors colloquia when available,
3. enroll in six hours of honors research DRAM 399VH,
4. complete and defend in oral examination an honors thesis based upon the project carried out in DRAM 399VH, and
5. achieve a cumulative grade-point average of 3.5. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate’s entire academic program. Usually these are awarded only to students with a cumulative grade-point average of 3.50 or above, whose project demonstrates a high degree of creativity and scholarship.

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### Drama Eight-Semester Degree Program

Students wishing to follow the eight-semesr degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

All drama majors are required to take an additional two hours of DRAM 3001 Theatre Practicum, one hour to be taken each academic year. Consult Drama Adviser for more information on these credits.

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Requirements for a Minor in Drama: A minimum of 18 semester hours in drama, including DRAM 1223. One of the following courses or course/lab combinations is also required: DRAM 1313 and 1311L, or DRAM 1323 and 1321L, or DRAM 1683. The remaining hours must be selected from courses at the 3000-4000 level, the specific courses to be determined by the student in consultation with a drama department faculty adviser. The student must notify the department of his or her intent to minor.

Drama (B.A.) Drama/Speech Teacher Licensure Requirements: Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

For requirements for the M.A. and M.F.A. degrees in drama, see the Graduate School Catalog.

SEE PAGE 338 FOR DRAMA (DRAM) COURSES SEE PAGE 338 FOR DANCE (DANC) COURSES

ECONOMICS (ECON)

Joseph Ziegler
Chair of the Department
402 Business Building
479-575-ECON (3266)
http://waltoncollege.uark.edu/ECON/default.asp
- Phillips Petroleum Chair of International Business and Economics
- Distinguished Professor Murray
- Margaret Gerig and R.S. Martin Jr. Chair in Business Professor Farmer
- Lewis E. Epley Jr. Professor Ferrier
- Professors Britton, Curington, Dixon, Gay, Horowitz, Ziegler
- Associate Professors Deck, Kali
- Clinical Associate Professor Stapp
- Assistant Professors Mendez, Reyes
- Visiting Assistant Professor Littrell

Requirements for a Major in Economics: 30 semester hours, including ECON 2143 or ECON 2013 and ECON 2023, ECON 3033, ECON 4743, and ECON 4033.

Economics Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.
Requirements for a Major in Economics with Emphasis in International Economics and Business:

1. 30 semester hours of courses, including ECON 2013, ECON 2023, ECON 3033, ECON 3133, ECON 4633, ECON 4643, and 12 hours of international economics and business electives that may be selected from ECON 3843, ECON 4653, ECON 468V, MGMT 4583, or other courses approved by the departmental adviser. Course pre-requisites for non-economics international business courses will count toward this 12-hour requirement. Thus, if a student wants to take MKTG 4833 International Marketing as an international economics and business elective, he/she also must take the prerequisite MKTG 3433 Introduction to Marketing Strategy. These two courses will satisfy 6 hours of the elective requirement.

2. 9 hours of upper-division course work in Fulbright College that focuses on a country or region of the world related to the foreign language, which might include upper-division courses in the same language, which should emphasize literature or cultural topics. Courses must be approved by the departmental adviser. Students who meet the requirements of the Fulbright College area studies programs in Asian Studies, Russian and Soviet Studies, Latin American Studies, or European Studies will be considered to have fulfilled this requirement.

3. MATH 2043 and MATH 2053 or MATH 2554 and MATH 2564 if these courses fulfill the Fulbright College mathematics requirement.

4. 9 hours of business/stat courses to include WCOB 1033 or STAT 2303 and ACCT 2013 and ACCT 2023.

5. 6 hours of a foreign language at the intermediate level, or above, and 3 hours of upper-division foreign language in the same language covering business communications, or equivalent. Any student whose minimum 6-hour requirement under (#5) above includes an upper-division course may choose to include business communications among the 6 hours of required university course work in the foreign language.

NOTE: It is strongly recommended that economics majors who plan to continue their studies at the graduate level take two semesters of calculus (MATH 2554 and MATH 2564) and linear algebra (MATH 3083).

Economics Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.
Writing Requirement: The Fulbright College writing requirement for economics majors will be fulfilled by the research/analytical paper required in ECON 4033. For economics majors who elect to emphasize international economics and business, the writing requirement will be fulfilled by the research/analytical paper required in ECON 4633 or 4643.

Requirements for Departmental Honors in Economics: The Departmental Honors program provides upper-division students the opportunity to engage in independent study or research under the guidance of an individual member of the faculty. In addition to satisfying the general college requirements for the bachelor's degree with honors, honors candidates in economics are required to complete and orally defend an honors thesis based upon independent study under ECON 399VH (for 3 to 6 hours) and to have a minimum grade-point average of 3.5. Outstanding student achievement will be recognized by awarding the bachelor's degree with the distinction "Economics Scholar Cum Laude." Higher distinctions may be awarded to truly outstanding students based upon the whole of their academic program and quality of honors research.

The following courses, among others in business administration, are given credit toward an economics major for the B.A. degree. For description of these courses, see College of Business Administration section of this catalog.

FINN 3133 Commercial Banking
FINN 3043 Principles of Finance
WCOB 1033 Data Analysis and Interpretation
For the combined major in economics and African-American studies, see page 129.

Requirements for a Minor in Economics: 18 hours in economics. Required courses are ECON 3033 Microeconomic Theory, and ECON 3133 Macroeconomic Theory, plus 12 additional hours in economics, six of which must be in courses numbered 3000 or above.

NOTE: ECON 2013 and ECON 2023, or ECON 2143, are prerequisites to all economics courses numbered above 3000.

Economics (B.A.) Social Studies Teacher Licensure Requirements:
Please refer to the Secondary Education Requirements for Fulbright College Students on page 118. Students wanting to teach social studies in middle school should consult with a middle level adviser in the College of Education and Health Professions.

SEE PAGE 340 FOR ECONOMICS (ECON) COURSES

ENGLISH (ENGL)
Joseph D. Candido
Chair of the Department
338 Kimpel Hall
479-575-4301
http://www.uark.edu/depts/english/

• Distinguished Professors Emeriti Guilds, Kinnamon
• University Professors Emeriti Harrison, Van Scyoc, Williams
• Professors Adams (C.), Booker, Burris, Candido, Cochran, DuVal, Giles, Hays, Heffernan, Jolliffe, Montgomery, Quinn, Stephens, Talburt
• Professors Emeriti Bennett, Bolsterli, Hart, Rudolph
• Associate Professors Gilchrist, Kahf, Marren, McCombs Slattery
• Associate Professors Emeriti MacRae, Park
• Assistant Professors Adams (R.), Bernhard Jackson, Brock, Collins, Tucker, Zuroski

• Adjunct Assistant Professor Gertz
• Instructors Gamble, Gray, Smith

The Department of English offers a major in English, a minor in English, and a combined major in English and journalism.

The major in English is suitable for many purposes, both professional and cultural. By properly selecting courses, the student may prepare for postgraduate work in literature and language; meet the English requirements for secondary teaching licensure; develop writing skills, both in creative and in expository writing; obtain appropriate pre-professional training for areas such as law; or study broadly in the literary culture of English-speaking peoples. A rich variety of courses is offered, and there is opportunity within the major for any student to explore areas of special interest: for example, American literature, the Renaissance, drama, the English language, and modern and contemporary literature.

Requirements for a Major in English: 36 semester hours (not counting ENGL 0003, ENGL 1013, ENGL 1023, and ENGL 2033). These hours must include 12 hours of survey courses, including ENGL 2303; either ENGL 2313 or ENGL 2323; either ENGL 2343 or ENGL 2353; and one additional survey course chosen from ENGL 2313, ENGL 2323, ENGL 2343, and ENGL 2353. Majors must take an additional 12 hours that include ENGL 4303; one of ENGL 3713, ENGL 3723, and ENGL 3733; either ENGL 3743 or ENGL 3753; and one of ENGL 3833, ENGL 3843, ENGL 3853, and ENGL 3863. The remaining twelve hours can be taken in any English course numbered above 3000, with the stipulation that at least six of these hours must be numbered above 4000.

English Eight-Semester Degree Program
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

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<td>3-4 †MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>15-16 Total Hours</td>
<td>16-17 Total Hours</td>
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**Group A:** Twelve hours chosen from the following:

ENGL 2303 Survey of English Literature from Beginning through 17th Century (required)
3 hours from either
ENGL 2313 Survey of English Literature from 1700 to 1900 or
ENGL 2323 Survey of Modern British, Irish, and Postcolonial Literature
3 hours from either
ENGL 2343 Survey of American Literature from the Colonial Period through Naturalism or
ENGL 2533 Survey of Modern American Literature
3 hours from one of remaining ENGL 2313, ENGL 2323, ENGL 2343, or ENGL 2533

ENGL 3843 Topics in Modern American Literature and Culture,
ENGL 3653 Topics in African-American Literature and Culture,
or
ENGL 3863 Topics in Literature and Culture of the American South
3 hours of ENGL 4303 Introduction to Shakespeare (required)

**Group C:** Twelve additional hours in English courses numbered above 3000, at least six of which must be numbered above 4000.

**Writing Requirement:** All upper-division English courses require a research or an analytical paper except ENGL 4003 and the courses in creative writing (ENGL 3013, ENGL 4013, ENGL 4023, ENGL 4073). For this reason all students who fulfill the requirements for a major in English thereby fulfill the Fulbright College writing requirement.

**Requirements for a Major with a Concentration in Creative Writing:**
36 semester hours (not counting ENGL 0003, ENGL 1013, ENGL 1023, and ENGL 2003) to include three hours of ENGL 3203 Poetry; three hours of ENGL 3213 Fiction; three hours of ENGL 2023 Creative Writing I; three hours of ENGL 3013 Creative Writing II; three hours of ENGL 4013 Poetry Workshop or ENGL 4023 Fiction Workshop; twelve hours of survey courses (taken from ENGL 2303, ENGL 2313, ENGL 2323, ENGL 2343, and ENGL 2533); three hours of ENGL 4303 Introduction to Shakespeare; and six additional hours chosen from ENGL courses numbered above 3000 and WLIT courses numbered above 2333.

**English Eight-Semester Degree Program**
**with a Concentration in Creative Writing**

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

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<th>Fall Semester Year 1</th>
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Each honors candidate in English must major in English and the general college requirements for the B.A. degree, research. In addition to the college and departmental requirements for the candidates enroll in special courses and do directed independent study and to strengthen their study of English and adapt it to their interests. Honors mental Honors Program in English allows upper-division undergraduates.

### Fall Semester Year 3
- 3 ‡ENGL from Group A or Core from areas a, b, c, d, or e (as needed)
- 3 †ENGL 2023 Creative Writing I
- 3 Core from areas a, b, c, d, or e (as needed)
- 3 Core from areas a, b, c, d, or e (as needed)
- 4 Core from area f (as needed)

#### Total Semester Hours: 16

### Spring Semester Year 3
- 3 ‡ENGL from Group A or Core from areas a, b, c, d, or e (as needed)
- 3 ‡ENGL from Group B or C
- 3 Core from areas a, b, c, d, or e (as needed)
- 3 Core from areas a, b, c, d, or e (as needed)
- 4 Core from area f (as needed)

#### Total Semester Hours: 16

### Fall Semester Year 4
- 3 †ENGL 3013 Creative Writing II
- 3 †ENGL from Group B or C
- 3 †ENGL from Group B or C
- 3 Core from areas a, b, c, d, or e (as needed)
- 4 General Electives

#### Total Semester Hours: 16

### Spring Semester Year 4
- 3 ‡ENGL 4013 Poetry Workshop or †ENGL 4023 Fiction Workshop
- 3 †ENGL from Group B or C
- 3 †ENGL from Group B or C
- †Upper Level ARSC Course
- 3 General Elective

#### Total Semester Hours: 15

<table>
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<tr>
<th>Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a placement and previous credit granted.</th>
<th>15-16 Total Hours</th>
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### Group A: Twelve hours chosen from the following:
- 3 hours of ENGL 2303 Survey of English Literature from Beginning through 17th Century (required)
- 3 hours of either ENGL 2313 Survey of English Literature from 1700 ñ 1900 or ENGL 2323 Survey of Modern British, Irish, and Postcolonial Literature
- 3 hours of either ENGL 2343 Survey of American Literature from the Colonial Period through Naturalism or ENGL 2353 Survey of Modern American Literature
- 3 hours of one of remaining ENGL 2313 or ENGL 2323 or ENGL 2343 or ENGL 2353

### Group B: Nine hours of the following:
- 3 hours ENGL 3203 Poetry
- 3 hours ENGL 3213 Fiction
- 3 hours ENGL 4030 Introduction to Shakespeare

### Group C: Six additional hours chosen from English or World Literature courses numbered above 3000

### Requirements for Departmental Honors in English: The Departmental Honors Program in English allows upper-division undergraduates to strengthen their study of English and adapt it to their interests. Honors candidates enroll in special courses and do directed independent study and research. In addition to the college and departmental requirements for the major in English and the general college requirements for the B.A. degree, each honors candidate in English must

1. be accepted as an honors candidate by the department,
2. complete at least nine hours of honors course work, at least three hours of which must be in English,
3. enroll in at least three hours of Senior Thesis ENGL 498V and write an honors thesis, either a critical study or a creative writing project,
4. defend the candidate’s entire honors program in an oral examination.

Candidates may petition to enroll in a departmental graduate seminar. Candidates who complete the honors program with merit will graduate with the distinction “English Scholar Cum Laude." The distinctions of Magna Cum Laude and Summa Cum Laude will be awarded only for exceptional work and will be based on the candidate’s entire honors program.

### Requirements for a Minor in English: 18 hours of English (not counting ENGL 0003, ENGL 1013, ENGL 1023, and ENGL 2003) to include any nine hours of survey courses (chosen from ENGL 2303, ENGL 2313, ENGL 2323, ENGL 2343, and ENGL 2353) and nine additional hours chosen from English courses numbered above 3000 and WLIT courses above 2333.

### Requirements for a Combined Major in English and Journalism

The English requirements for this combined major are as follows: 24 hours of English courses (not counting ENGL 0003, ENGL 1013, ENGL 1023, and ENGL 2003) to include any nine hours of survey courses (chosen from ENGL 2303, ENGL 2313, ENGL 2323, ENGL 2343, and ENGL 2353), and 15 additional hours chosen from English courses numbered above 3000 and WLIT courses above 2333.

The Journalism requirement for the combined major is 24 semester hours including JOUR 1023, JOUR 1033, and JOUR 3633. The remaining 15 hours are filled from one of the two following options:

- **Print:** JOUR 2013, JOUR 3013, JOUR 3023, 3123, and one additional journalism course
- **Broadcast:** JOUR 2023/2031L, 3072/3071L, JOUR 4863, 4873, and one additional journalism course

### Combined Major in English and Journalism

#### Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional BA Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

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### Fall Semester Year 2
- 3 †ENGL from survey group (above)
- 3 †JOUR 2013 News Reporting 1
- 3 †Core from area g (if needed) or †Advanced Level Elective
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from areas a, b, c, d, e (as needed)
- 15 Total Hours

### Spring Semester Year 2
- 3 †ENGL from survey group (above)
- 3 †JOUR 3013 Editing or JOUR 3023 News Reporting 2
- 3 †Core from area g (if needed) or †Advanced Level Elective
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from areas a, b, c, d, e (as needed)
- 3 ††ENGL/WLIT Upper Level Elective
- 4 Core from area f (as needed)
- 16 Total Hours

### Fall Semester Year 3
- 3 †JOUR 3023 News Reporting 2 or †JOUR 3013 Editing
- 3 †ENGL from survey group (above)
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from area f (as needed)
- 4 Core from area f (as needed)
- 16 Total Hours

### Spring Semester Year 3
- 3 †JOUR 3633 Media Law
- 3 †ENGL/WLIT Upper Level Elective
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from area f (as needed)
- 4 Core from area f (as needed)
- 16 Total Hours

### Fall Semester Year 4
- 3 †ENGL/WLIT Upper Level Elective
- 3 †ENGL/WLIT Upper Level Elective
- 3 JOUR elective
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from area f (as needed)
- 1 General Elective
- 16 Total Hours

### Spring Semester Year 4
- 3 †ENGL/WLIT Upper Level Elective
- 3 †ENGL/WLIT Upper Level Elective
- 3 JOUR elective
- 3 Core from areas a, b, c, d, e (as needed)
- 3 Core from areas a, b, c, d, e (as needed)
- 3 †ENGL from survey group (above)
- 3 ††ENGL/WLIT Upper Level Elective
- 3 ††ENGL/WLIT Upper Level Elective
- 3 ††ENGL/WLIT Upper Level Elective
- 3 †ENGL from survey group (above)
- 3 †ENGL from survey group (above)
- 3 †ENGL from survey group (above)
- 3 †ENGL from survey group (above)
- 3 †ENGL from survey group (above)
- 3 †ENGL from survey group (above)
- 16 Total Hours

**Assessment Requirement:** Every senior English major must take the program assessment exam administered by the department each spring semester to graduate. Exam results will not affect GPA, although the student’s score will be noted on his or her permanent academic record. This requirement may be waived in extraordinary circumstances by the department’s Director of Undergraduate Studies. Contact your adviser for more information.

**English (B.A.) Teacher Licensure Requirements:**

Please refer to the Secondary Education Requirements for Fullbright College Students on page 118.

Students wanting to teach English in middle school should consult with a middle-level adviser in the College of Education and Health Professions. **SEE PAGE 345 FOR ENGLISH (ENGL) COURSES**

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### EUROPEAN STUDIES (EUST)

**Fiona Davidson**
Director of Studies
108 Ozark Hall
479-575-3879
http://www.uark.edu/depts/eust/

- Professors Booker (English), Dixon (geography), DuVal (English), Gay (economics), Heffernan (English), Kelley (political science), Montgomery (English), Pritchett (Spanish), Purvis (journalism and political science), Rickert (German), Tucker (Russian), Wáligorski (political science),
- Associate Professors Adler (philosophy), Arenberg (French), Bailey (communication), Christiansen (French), Condor (German), Davidson (geography), Jacobs (art), Minar (philosophy), Scheide (communication), Senor (philosophy), Sonn (history),
- Assistant Professors Brugi (history), Comfort (French), Grob-Fitzgibbon (history), Rozier (Italian), Ruiz (Spanish)

Courses are offered in European studies, broadly defined as the study of the geography, culture, history, language, and politics of central Europe, including the British Isles.

Students wishing to maximize their knowledge of European studies and wishing to prepare for graduate training and/or employment in the private sector or government in positions related to the area may earn a combined major in European studies together with a major in another discipline. Students are required to coordinate their academic programs both with their advisers in the major department and with the director of the European Studies program. New students entering the program are required to notify both the major adviser and the director of studies of their intention to participate. Freshmen and sophomores considering this program are advised to begin their study of an appropriate foreign language as early as possible.

**Requirements for a Minor in European Studies:** Students wishing to minor in European studies must fulfill the EUST 2013 Introduction to Europe and EUST 4003 Colloquium requirements and the language requirements described below under the requirements for the major. They also must complete at least 12 hours from among the electives listed below. A maximum of six hours of electives may be submitted from any one department.

**Requirements for a Major in European Studies – Language Requirement:** Students must complete the equivalent of a third year of a modern European language, e.g., six hours of advanced 3000- or 4000-level work in French, German, or Spanish. Less commonly taught languages such as Portuguese or Italian may be used, subject to the availability of courses. Three to six hours in an approved study abroad program in Europe may substitute for all or part of this requirement. For native speakers of a European language other than English, this requirement is waived.

**Introduction to Europe:** Students must complete EUST 2013 Introduction to Europe, preferably before taking the colloquium.

**European Studies Colloquium:** Students must complete three to six hours of EUST 4003 European Studies Colloquium.

**Electives:** Students must complete at least 18 hours of credit, in addition to the language requirement and the European studies colloquium, from among the following or in individualized studies under the direction of faculty participating in the program. Students choosing to take individualized reading or directed research courses as part of the major or minor must obtain the approval of the director of the area studies program and their major adviser. In addition, the following conditions apply:

1. A maximum of nine hours may be submitted from any one department, and
2. A maximum of six hours may be submitted from courses taken in the student’s major department.
The following courses may be taken in fulfillment of elective requirements:

**Anthropology**
ANTH 4253 People and Cultures of the World Regions
(Region varies, counts for EUST if region is Europe)

**Art History**
ARHS 4873 Baroque Art
ARHS 4883 19th Century European Art
ARHS 4893 20th Century European Art

**English**
Any 3000- or 4000-level course in 18th, 19th, or 20th century British, Irish, Scots, or continental literature, any comparative literature course with significant European content.

**Foreign Languages**
Any 3000- or 4000-level French, German, Italian or peninsular Spanish literature or civilization course.

**Geography**
GEOG 4243 Political Geography
GEOG 4783 Geography of Europe

**History**
HIST 3443 Modern Imperialism
HIST 3533 World War II
HIST 4103 Europe in the 19th Century
HIST 4113 20th Century Europe to 1939
HIST 4133 Society and Gender in Modern Europe
HIST 4143 Intellectual History of Europe Since the Enlightenment
HIST 4183 Great Britain 1780-1914
HIST 4193 Great Britain 1901-1982
HIST 4213 The Era of the French Revolution
HIST 4223 France Since 1815
HIST 4243 Germany 1789-1918
HIST 4253 History of Germany 1918-1949

**Humanities**
HUMN 4913 Literary Reflections on the Holocaust

**Music History**
MUHS 3703 History of Music to 1800
MUHS 3713 History of Music from 1800 to Present
MUHS 4253 Special Topics in Music History (depending on topic)

**Philosophy**
PHIL 4033 Modern Phil. – 17th and 18th Century
PHIL 4043 19th Century Philosophy
PHIL 4063 20th Century Continental Philosophy
PHIL 4073 History of Analytic Philosophy

**Political Science**
PLSC 3553 Western European Politics
PLSC 3963 Modern European Political Thought
PLSC 4543 Government and Politics of Eastern Europe
PLSC 4803 Foreign Policy Analysis

**Requirements for Honors in EUST:** The Honors Program in European Studies gives junior and senior students of high ability the opportunity to enroll in enriched courses and conduct independent research culminating in an honors thesis. In addition to satisfying the general Fulbright College requirements for graduation and the basic eligibility requirements for honors as established by the Honors Council, candidates for honors in European Studies must complete 12 hours of honors credit in partial satisfaction of requirements for the co-major. One to six of these may be thesis hours (EUST 399VH). The preferred method for satisfying the remaining hours is to enroll in the colloquium at least once for honors credit (EUST 4003H) and to take relevant honors colloquia or graduate courses (with permission) in one of the departments contributing to this interdisciplinary area study. The thesis committee shall include a representative from the major discipline (in the case of multiple majors, from the discipline contributing most significantly to the topic). Successful completion of these requirements will be recognized by the award of the distinction “European Studies Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in exceptional cases and are based upon the whole of the candidate’s program of honors studies.

**FOREIGN LANGUAGES (FLAN)**
Joan F. Turner
Chair of Department
425 Kimbel Hall
479-575-2951
http://www.uark.edu/depts/flaninfo/

- Professors Haydar (A.), Levine, Pritchett, Restrepo, Tucker, Williams
- Professors Emeriti Eichmann, Falke, Fernandez, Hanlin, Ricker
- Associate Professors Arenberg, Bell, Christiansen, Condray, Davis, Fredrick, Fukushima, Jones, Ruiz, Turner
- Associate Professors Emeriti Bergal, Ford, Hassel, Horton
- Assistant Professors Billings, Hoyer, Pappas, Rozier, Villalobos
- Instructors Haydar (P.), Xu

The foreign language requirement among the basic courses is satisfied by successful completion of a course numbered 2013 for all B.A. degree candidates and of a course numbered 2003 for all B.S. and B.F.A. degree candidates, and 1013 for B.M. degree candidates. Students who, on the basis of prior knowledge of language, omit one or more courses in the basic language sequence (1013-2013) may receive college credit for omitted courses if they validate their higher placement by passing an advanced course with a grade of “C” or above. Credit will be awarded at the request of the student when filed by application to the Foreign Language Department office.

**Restrictions:** (a) Conversation courses (3033, 4033) and correspondence courses may not be used to validate such prior knowledge. (b) No degree credit (graduation credit) is awarded for a foreign language 1003 course to students in Fulbright College continuing the language begun in high school, either by validation or regular registration. Also, for Fulbright College students who do not present the Fulbright College admission requirement of two units (years) of a single modern foreign or classical language, the first semester of language study will be considered remedial and will not count towards the 124 hours required for graduation (although the course will appear as University credit and the grade received will be computed in the grade-point average). Students transferring from other institutions are expected to meet the same entrance standard.

**Requirements for a Major in a Foreign Language:**

**French:** (University and college requirements for the Bachelor of Arts are found on pages 40 and 122.) 24 hours in French in courses numbered 3000 or above with a minimum grade of “C” in each course. Specific courses required are FREN 3003, FREN 3113, FREN 4003, FREN 4033, FREN 4213, and any two French literature courses at the 4000-level.

**French Eight-Semester Degree Program**

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.
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<th>Semester</th>
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| **Fall Semester Year 1** | 3 ENGL 1013 Composition I  
3 MATH 1203 (If required) or †MATH 2043, 2053, 2183 or 2554  
3 FREN course from Group A  
3 Core from areas a, b, d or e (as needed)  
3 Core from areas a, b, d or e (as needed)  
**15-16 Total Hours** |
| **Spring Semester Year 1** | 3 ENGL 1023 Composition II  
3 †MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, d or e (as needed)  
3 FREN course from Group A  
3 Core from areas a, b, d or e (as needed)  
4 Core from area f (as needed)  
**16-17 Total Hours** |
| **Fall Semester Year 2** | 3 FREN course from Group A or †FREN course from Group B  
3 Core from areas a, b, d or e (as needed)  
3 Core from areas a, b, d or e (as needed)  
3 Core from areas a, b, d or e (as needed)  
4 Core from area f (as needed)  
**16 Total Hours** |
| **Spring Semester Year 2** | 3 FREN course from Group A or †FREN course from Group B  
†Core from area g (if required) or †Advanced Level Elective  
3 Core from areas a, b, d or e (as needed)  
3 Core from areas a, b, d or e (as needed)  
3 General Elective  
**15 Total Hours** |
| **Fall Semester Year 3** | †FREN course from Group B  
†FREN course from Group B or †FREN course from Group C  
3 Core from areas a, b, d or e (as needed)  
3 Core from areas a, b, d or e (as needed)  
4 Core from area f (as needed)  
**16 Total Hours** |
| **Spring Semester Year 3** | †FREN course from Group B or †FREN course from Group C  
†FREN course from Group C  
†Core from area g (if required) or †Advanced Level Elective  
3 Core from areas a, b, d or e (as needed)  
4 Core from area f (as needed)  
**16 Total Hours** |
| **Fall Semester Year 4** | †FREN course from Group C (as needed)  
†FREN course from Group C (as needed)  
†Advanced Level Elective  
3 General Elective  
**15 Total Hours** |
| **Spring Semester Year 4** | †FREN course from Group C (as needed) or General Elective  
†FREN course from Group C (as needed) or General Elective  
†Advanced Level Elective  
3 General Elective  
**15 Total Hours** |

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter  
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

**Group A:** Courses to complete the basic language requirement, as needed.

**Group B:** Minimum 9 hours  
Required courses:  
FREN 3003 Advanced French  
FREN 3113 Introduction to Literature  
FREN 4003 Advanced Grammar  
Electives:  
FREN 3103 Cultural Readings  
FREN 3033 French Conversation

**Group C:** Minimum 12 hours  
Required courses:  
FREN 4033 Oral Proficiency  
FREN 4213 French Civilization  
Two French Literature courses chosen from the following:  
FREN 4113 Special Themes French Literature  
FREN 4223 Survey of French Literature I  
FREN 4233 Survey of French Literature II  
Electives:  
FREN 4333 Business French  
FREN 4113 Special Themes French Literature  
FREN 475V Special Investigations  
FREN 4203 Quebec Studies

**German:** (University and college requirements for the Bachelor of Arts are found on pages 40 and 122.) 24 hours in German in courses numbered 3000 or above with a minimum grade of “C” in each course. Specific courses required are GERM 3003, GERM 3013, GERM 4003, GERM 4213, GERM 4223, and six hours of literature.

**German Eight-Semester Degree Program**  
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 1200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

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<th>Semester</th>
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| **Fall Semester Year 1** | 3 ENGL 1013 Composition I  
3-4 MATH 1203 (If required) or †MATH 2043, 2053, 2183 or 2554  
3 GERM course from Group A  
3 Core from areas a, b, d or e (as needed)  
3 Core from areas a, b, d or e (as needed)  
**15-16 Total Hours** |
| **Spring Semester Year 1** | 3 ENGL 1023 Composition II  
3 †MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, d or e (as needed)  
3 †Advanced Level Elective  
3 Core from areas a, b, d or e (as needed)  
4 Core from area f (as needed)  
**16 Total Hours** |
| **Fall Semester Year 2** | 3 GERM course from Group A or †GERM course from Group B  
3 Core from areas a, b, d or e (as needed)  
**124 Total Hours** |
Spring Semester Year 2

3 †Core from area g (if required) or †Advanced Level Elective
3 †GERM course from Group B
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
3 General Elective
16 Total Hours

Fall Semester Year 3

3 †GERM course from Group B
3 †GERM course from Group B
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
4 General Electives
15 Total Hours

Spring Semester Year 3

3 †GERM course from Group B
3 †GERM course from Group B (if needed) or †GERM course from Group C
3 Core from areas a, b, d or e (as needed)
4 Core from area f (as needed)
3 †Core from area g (if required) or †Advanced Level Elective
16 Total Hours

Fall Semester Year 4

3 †GERM course from Group B (if needed) or †GERM course from Group C
3 †GERM course from Group C (as needed)
3 †Advanced Level Elective
6 General Electives
15 Total Hours

Spring Semester Year 4

3 †GERM course from Group C (as needed)
3 †GERM course from Group C (as needed)
3 †Advanced Level Elective
3 General Elective
15 Total Hours

Spring Semester Year 2

3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
4 Core from area f (as needed)
16 Total Hours

Fall Semester Year 3

3 †Core from area g (if needed) or †Advanced Level Elective
3 †GERM course from Group B
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
3 General Elective
15 Total Hours

Spring Semester Year 3

3 †GERM course from Group B
3 †GERM course from Group B
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
4 Core from area f (as needed)
16 Total Hours

Spring Semester Year 4

3 †GERM course from Group B (if needed) or †GERM course from Group C
3 †GERM course from Group C (as needed)
3 †Advanced Level Elective
6 General Electives
15 Total Hours

Spring Semester Year 4

3 †GERM course from Group C (as needed)
3 †GERM course from Group C (as needed)
3 †Advanced Level Elective
3 General Elective
15 Total Hours

Spring Semester Year 2

3 Core from area f (as needed)
3 †Core from area g (if needed) or †Advanced Level Elective
3 †SPAN course from Group B
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
3 General Elective
15 Total Hours

Spring Semester Year 3

3 †SPAN course from Group B
3 †SPAN course from Group B
3 Core from areas a, b, d or e (as needed)
3 Core from areas a, b, d or e (as needed)
4 General Electives
16 Total Hours

Spring Semester Year 3

3 †SPAN course from Group B

Spanish: (University and college requirements for the Bachelor of Arts are found on pages 40 and 122.) 27 hours in Spanish in courses numbered 3000 or above with a minimum grade of "C" in each course. Specific courses required are SPAN 3003, SPAN 3033, SPAN 3103, SPAN 3113, and SPAN 4003. The remaining 12 hours are to be selected from among other 4000-level offerings, in consultation with the major adviser. Students considering future graduate work in Spanish are strongly advised to take both the Spanish and Latin American literature surveys (SPAN 4103 or 4113 and 4133).

Spanish Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

Group A: Courses to complete the basic language requirement, as needed.
GERM 1003 Elementary German I
GERM 1013 Elementary German II
GERM 2003 Intermediate German I
GERM 2013 Intermediate German II

Group B: Fifteen hours.
GERM 3003 Advanced German I (fall)
GERM 4003 Advanced German II (spring)
GERM 3013 Introduction to Literature (fall)
GERM 4213 German Civilization (spring)
GERM 3033 Conversation (spring)

Group C: Nine hours.
GERM 4003 Advanced German II
GERM 4143 German Lyric Poetry
GERM 4343 Business German II
GERM 4123 The German Novella
GERM 4223 German-Speaking Countries
GERM 470V Special Topics
GERM 4133 The German Drama
GERM 4333 Business German I
GERM 475V Special Investigations
**Group A:** Courses to complete the basic language requirement, as needed.

- SPAN 1013 Elementary Spanish II
- SPAN 2003 Intermediate Spanish I
- SPAN 2013 Intermediate Spanish II

**Group B:** Fifteen hours (SPAN 3003 and 3103 must be completed before enrolling in SPAN 3113 and 4003.)

- SPAN 3003 Advanced Spanish
- SPAN 3033 Conversation and Composition
- SPAN 3103 Cultural Readings
- SPAN 3113 Introduction to Literature
- SPAN 4003 Advanced Grammar

**Group C:** Twelve hours required from the following:

- SPAN 4033 Advanced Conversation
- SPAN 4133 Survey of Spanish American Literature I
- SPAN 4223 Latin American Civilization
- SPAN 4103 Monuments of Spanish Literature I
- SPAN 4113 Monuments of Spanish Literature II
- SPAN 4213 Spanish Civilization
- SPAN 4233 Modern Mexico Culture and Society
- SPAN 4243 Literature and Culture in Hispanic U.S.
- SPAN 4253 Latin American Cinema and Society
- SPAN 4333 Business Spanish I
- SPAN 4063 Spanish Linguistics
- SPAN 470V Special Topics
- SPAN 475V Special Investigations

**Writing Requirement:** The college writing requirement may be satisfied by a term paper or other written work submitted for an upper-division foreign language literature class approved by the chair of the department.

For majors in Greek and Latin, see Classical Studies.

**Requirements for a Minor in Foreign Languages:**

- **Arabic:** 15 hours in courses numbered 3000 or above. Specific courses required are ARAB 3016, ARAB 4016, and ARAB 4023 or ARAB 4053.
- **French:** 15 hours in courses numbered 3000 or above. Specific courses required are FREN 3003, FREN 3113, FREN 4003, and FREN 4033. In some cases, specific course requirements may be adjusted to the individual needs of the candidate with the permission of the French adviser.

- **German:** 15 hours in courses numbered 3000 or above. Specific courses required are GERM 3003, GERM 4003, GERM 4213 and three hours of literature.

- **Spanish:** 15 hours in courses numbered 3000 or above. Specific courses required are SPAN 3003, SPAN 3103, and SPAN 4003 with six additional hours selected in consultation with the Spanish adviser.

**Requirements for Honors in Foreign Languages:** The Honors Program in Foreign Languages gives students of high ability the opportunity to conduct independent research culminating in an honors thesis. In addition to satisfying general graduation requirements and all requirements for honors separately established by the Honors Council, candidates for honors in Foreign Languages must:

1. complete 12 hours of honors credit. One to six of these may be honors thesis hours; the remaining hours should be taken in disciplines chosen in consultation with the adviser;
2. complete an honors thesis in the major field, and pass an oral examination on the thesis conducted by an honors committee, as evidence of substantial individual research skills;
3. demonstrate superior competence in language, culture, and literature by achieving a GPA of 3.5 in all upper-division courses submitted for the major.

Successful completion of these requirements will be recognized by the award of the distinction “Language Scholar Cum Laude.” Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies.

**Foreign Language (B.A.) Teacher Licensure Requirements:**

Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

SEE PAGE 350 FOR FOREIGN LANGUAGES (FLAN) COURSES, CHECK PAGE 309 FOR ALPHABETICAL LISTINGS OF SPECIFIC LANGUAGES.

**FULBRIGHT INSTITUTE OF INTERNATIONAL RELATIONS (FIIR)**

Donald R. Kelley
Director of the Institute
428 Old Main
479-575-2006
http://www.uark.edu/-fiir/
The Fulbright Institute of International Relations is a center for study, research, and analysis of foreign policy and international affairs within the J. William Fulbright College of Arts and Sciences. The institute honors J. William Fulbright for his leadership in international relations and his lasting contributions to international education and better understanding among nations. In addition to instructional and research activities, the institute serves as a medium for international scholarly exchange and study programs, and sponsors conferences, seminars, public events, and publications on international relations.

GENDER STUDIES (GNST)

Susan Marren  
Chair of Studies  
333 Kimpel Hall  
479-575-4301  
www.uark.edu/depts/h2p/gnst/index.html
• Professors Schneider, Stephens, Swedenburg  
• Associate Professors Amason, Coon, D’Alisera, Fredrick, Gordon, Kahf, Marren, Parry, Robinson, Sonn, Starks, Striffler, Zajicek  
• Assistant Professors Arrington, Billings, Collins (S.), Corrigan, Erickson, House, Zuroski

The gender studies minor introduces students to the ways that various academic disciplines have examined women’s and men’s differing participation in work, the family, political systems, and creative endeavors. Courses explore sex and gender differences and such concepts as masculinity and femininity, essence and performance; distributions of power, work, and resources; and the symbolic representation of gender and identity in literature, religion, and art. The minor is often chosen by students interested in investigating materials previously neglected by scholars and in fresh perspectives on traditional subject matter.

Requirements for a Minor in Gender Studies: The student must complete 15 credit hours of regular courses listed below or special topics and seminars found in each semester’s schedule of classes under Gender Studies, including HUMN 2003 Introduction to Gender Studies:  
ANTH 3163 Male and Female  
ANTH 3523 Gender and Politics in Latin America  
CLST 4003H Rome on Film  
COMM 3433 Family Communication  
COMM 3983 Rhetoric of American Women  
COMM 4333 Communication and Gender  
HIST 3083 Women and Christianity  
HIST 3923H Honors Colloquium: The History of Sexuality in the United States  
HIST 3923H Honors Colloquium: Russian and Soviet Women  
HIST 4133 Society and Gender in Modern Europe  
HIST 4413 New Women in the Middle East  
HUMN 2003 Intro. to Gender Studies  
HUMN 3923H Honors Intro. to Gender Studies  
HUMN 4243 Women in Music and Art  
LAST 4003 Latina Writers  
PLSC 4573 Gender and Politics  
SOCI 4133 The Family  
WLIT 3983 Women and Arabic Literature

GEOSCIENCES (GEOS)

Pamela Jansma  
Chair of the Department  
113 Ozark Hall  
479-575-3355  
http://geosciences.uark.edu  
geos@uark.edu
• Emeritus Professors Cleveland, Macdonald, Steele  
• Distinguished Professor Stable  
• Professors Brahana, Davis, Dixon, Guccione, Hehr, Jansma, Konig, Manger, Martioli, Paradise, Zachry  
• Associate Professors Boss, Davidson, Graff  
• Assistant Professors Cohren, Hausmann, Teng, Tullis  
• Adjunct Associate Professor Hays  
• Research Assistant Professor Nelson

Earth Science (ERSC)

Fulbright College offers a major in earth science leading to the Bachelor of Science degree. Prospective secondary teachers may plan a program, in cooperation with the College of Education, which will satisfy the teacher licensure requirements. Students interested in environmental problems, teaching earth science in public schools, or wishing to pursue graduate work in either geography or geology will obtain much of the necessary foundation through this degree. Because the program outlined below lists only minimum science requirements, it is expected that most students will use some of their elective credit hours to strengthen their mathematics and science backgrounds in areas other than geography and geology. These areas of additional study will be determined through consultation between the student and the adviser. Students interested in this major should contact either Professor R.H. Konig or Professor J.C. Dixon.

Requirements for the B.S. Degree with a Major in Earth Science

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Courses</td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Chemistry or Physics</td>
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<tr>
<td>GEOL 1113/1111L</td>
</tr>
<tr>
<td>GEOL 1133/1131L</td>
</tr>
<tr>
<td>MATH (2043, 2053, 2183 or 2554)</td>
</tr>
<tr>
<td>Advanced Courses</td>
</tr>
<tr>
<td>ASTR 2003, ASTR 2001L</td>
</tr>
<tr>
<td>GEOG 3003, GEOG 3023, GEOG 4353 or GEOG 4363</td>
</tr>
<tr>
<td>GEOG 2313, GEOG 3413, GEOG 4033 and GEOG 4924</td>
</tr>
<tr>
<td>At least 6 additional hours, at the 3000 level or above, in either geography or geology.</td>
</tr>
<tr>
<td>Total Hours (depending on choice of MATH by student)</td>
</tr>
</tbody>
</table>

In addition, all earth science majors must satisfy the senior-level writing requirement as specified by the geosciences department.

Earth Science Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.
Earth Science (B.S.) Teacher Licensure in Life/Earth Science or Physical/Earth Science Requirements:

Students wanting to teach science in middle or secondary school should consult with an adviser in the College of Education and Health Professions.

Geography (GEOG)

Undergraduates who wish to major in geography should identify themselves to the department as soon as possible in order that they may develop a meaningful sequence of courses and take part in departmental activities. Two types of undergraduate programs with concentrations in geography are described below. Those interested in the graduate program should consult the Graduate School Catalog.

Requirements for a Major in Geography: The geography major of 30 hours leads to the B.A. degree in Fulbright College of Arts and Sciences. Requirements include GEOG 1123, GEOG 2003, GEOL 1131L, and GEOL 1133. A minimum of 15 hours must be at the 3000 level or above, including GEOS 3023, with a balance between regional and topical courses. The college writing requirement is to be met by completion of a term paper deemed satisfactory by the student’s adviser and instructor of an upper-level geography course. The college writing requirement may also be met by the completion of an honors thesis. Students who expect to enter graduate school are encouraged to register for GEOG 410V their senior year. Electives in closely related fields are considered a part of the program and, upon prior approval of the department, six hours may be counted toward the major. Those planning to teach in secondary schools should note that they can both earn their degree in geography and qualify for a teaching certificate; they should consult with the department as early as possible.

Geography Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a requirement. The course GEOG 2003 World Regional Geography counts as three hours toward University Core area e.

| Fall Semester Year 1 |  
|---|---|
| 3 | ENGL 1013 Composition I |
| 3-4 | MATH 1203 (if required) or †MATH 2043, 2053, 2183 or 2554 |
| 4 | GEOL 1133/1131L General Geology |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **16-17** Total Hours |

| Spring Semester Year 1 |  
|---|---|
| 3 | ENGL 1023 Composition II |
| 3-4 | †MATH 2043, 2053, 2183, 2554 (if needed) or Core from areas a, b, c, d or e (as needed) |
| 4 | GEOL 1133/1133L Environmental Geology |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **16-17** Total Hours |

| Fall Semester Year 2 |  
|---|---|
| 3 | ††GEOG 2313 Minerals and Rocks |
| 4 | CHEM or PHYS Course (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **16** Total Hours |

| Spring Semester Year 2 |  
|---|---|
| 3 | ††GEOG 3413 Sedimentary Rocks & Fossils |
| 3 | †Core from area f (if needed) or Advanced Level Elective |
| 4 | ASTR 2003/2001L |
| 4 | CHEM or PHYS Course (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **17** Total Hours |

| Fall Semester Year 3 |  
|---|---|
| 4 | BIOL Course (as needed) |
| 3 | ††GEOG 3023 Cartography |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **16** Total Hours |

| Spring Semester Year 3 |  
|---|---|
| 4 | BIOL Course (as needed) |
| 3 | ††GEOG 3003 Conservation of Natural Resources |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | ††GEOG 4033 Hydrogeology |
| **13** Total Hours |

| Fall Semester Year 4 |  
|---|---|
| 3 | ††GEOG 4353 Elements of Weather (as needed) or Core from areas a, b, c, d, or e (as needed) |
| 3 | ††Upper Level GEOG, GEOL, or GEOS Course |
| 6 | General Electives |
| 3 | †Advanced Level Elective |
| **15** Total Hours |

| Spring Semester Year 4 |  
|---|---|
| 4 | ††GEOG 4924 Earth System History |
| 3 | ††GEOG 4363 Climatology (as needed) or Core from areas a, b, c, d, or e (as needed) |
| 3 | ††Upper Level GEOG, GEOL, or GEOS Course |
| 3 | †Advanced Level Elective |
| 0-2 | General Electives as needed |
| **13-15** Semester Hours |
| 124 Total Hours |

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Fall Semester Year 1

| 3 | GEOG 1123 Human Geography |
| 3 | ENGL 1013 Composition I |
| 3-4 | MATH 1203 College Algebra or †MATH 2043, 2053, 2183 or 2554 |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **15-16** Semester Hours |

Spring Semester Year 1

| 4 | GEOL 1133/1131L General Geology |
| 3 | ENGL 1023 Composition II |
| 3-4 | †MATH 2043, 2053, 2183 or 2554 (if needed) or Core from groups a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **16-17** Semester Hours |

Fall Semester Year 2

| 3 | GEOG 2003 World Regional Geography |
| 4 | GEOG 1133/1131L Environmental Geology/Lab |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| 3 | Core from areas a, b, c, d or e (as needed) |
| **16** Semester Hours |
### Spring Semester Year 2
- 3 | ✱GEOG 3000 level or above Elective
- 3 | ✱Core from area a (if needed) or ✱Advanced Level Elective
- 4 | Core from group f (from Biological Sciences)
- 3 | Core from areas a, b, c, d or e (as needed)
- 3 | Core from areas a, b, c, d or e (as needed)
- 16 | Semester Hours

### Fall Semester Year 3
- 3 | ✱GEOG 3023 Introduction to Cartography
- 3 | ✱GEOG 3000-level or above Elective
- 3 | Core from areas a, b, c, d or e (as needed)
- 3 | Core from areas a, b, c, d or e (as needed)
- 1 | General Elective
- 16 | Semester Hours

### Spring Semester Year 3
- 3 | ✱GEOG 3000-level or above Elective
- 3 | ✱GEOG 3000-level or above Elective
- 3 | Core from area a (if needed) or ✱Advanced Level Elective
- 3 | Core from areas a, b, c, d or e (as needed)
- 3 | Core from areas a, b, c, d or e (as needed)
- 15 | Semester Hours

### Fall Semester Year 4
- 3 | ✱GEOG 3000-level or above Elective
- 3 | ✱Upper Level Elective with Departmental Consent
- 3 | ✱Advanced Level Elective
- 6 | General Electives
- 15 | Semester Hours

### Spring Semester Year 4
- 3 | ✱Upper Level Elective with Departmental Consent
- 3 | ✱Upper Level ARSC Elective
- 3 | ✱Advanced Level Elective
- 3 | ✱Advanced Level Elective
- 3 | General Elective
- 15 | Semester Hours
- 124 | Total Hours

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

### Requirements for a Minor in Geography:
15 hours in geography to include GEOG 1123. At least 6 hours must be numbered 3000 or above and must include one regional and one topical course.

### Requirements for a Minor in Historic Preservation:
18 hours from each of the following:
- a. ARCH 1003, or both ARCH 1212 and 1222, or equivalent class in architecture
- b. GEOG 4063, or LARC 3413, or equivalent class in urban studies
- c. ANTH 4443, or equivalent class in cultural resources
- d. GEOL 1133, or equivalent class in the human and physical aspects of the Earth
- e. GEOS 3023 or equivalent class in spatial representation and visualization
- f. GEOG 3033

GEOG 3033 Building Materials Field Studies and Laboratory is the required field and laboratory-based capstone course that will require two weekends (Saturday and Sunday) for completion. The course has been specifically designed for this program and will discuss the nature of building materials (wood, brick, mortar and stone), their identification and properties, weathering and erosion theory, assessment and mitigation (i.e. cleaning, consolidants, innovative trends). It is suggested that this class be taken last in the program series.

One semester participation in the University of Arkansas’ Rome Program will substitute for six (6) credits from class sections “a” (Architectural History) and “b” (Urban Studies) listed above. A supplemental program internship is suggested in addition to the classes required if the student’s career path is in Historic Preservation.

### Cartography/Remote Sensing GIS Specialization:
This program gives students an opportunity to develop expertise in (1) cartography, map design and computer-assisted map production, (2) remote sensing and image interpretation, including photographic systems, sensor systems, and digital image processing, and (3) geographic information systems, including data sources, analytical techniques, and hardware/software systems.

To complete the specialization, a student is required to fulfill certain course requirements.

Required courses (9 hours):
- GEOS 3023, GEOS 4413, and GEOS 3543 (same as ANTH 3543).
- Elective courses (9 hours to be selected from the following):
  - GEOG 4523, GEOG 5423, GEOG 4553 (same as ANTH 4553).
  - GEOG 4563 (same as ANTH 4563), GEOG 4573 (same as ANTH 4573), GEOG 4593 (same as ANTH 4593), STAT 4003 (or other approved statistics course).
  - CVEG 2053 (or other approved surveying course).
  - CENG 4883

### Requirements for Departmental Honors in Geography:
Admission to the Departmental Honors Program in Geography is open to geography majors with a minimum grade-point average of 3.5 in all their work. All honors candidates must take 12 hours, which may include 6 hours of thesis, in Honors Studies. During the fall semester of either the junior or senior year the candidate will enroll in GEOG 399VH (no more than three hours of credit), an undergraduate seminar in geographical philosophy and methodology. During the senior year the honors candidate will complete the program by writing a senior honors paper under GEOG 399VH (no more than three hours of credit). Successful completion of the requirements will be recognized by the award of the distinction “Geography Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies.

### Geography (B.A.) Social Studies Teacher Licensure:
Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach social studies in middle school should consult with a middle level adviser in the College of Education and Health Professions.

SEE PAGE 351 FOR GEOGRAPHY (GEOG) COURSES

### Geology (GEOL)
The department of geosciences offers the Bachelor of Science degree in geology and the Bachelor of Science degree in earth science. It is emphasized that students wishing to become practicing professional geologists should hold the Bachelor of Science degree in geology at a minimum. It is further recognized that practicing professional geologists typically hold a Master of Science degree. The education of students pursuing the Bachelor of Science in earth science degree should reflect general education in the liberal arts with emphasis in geology. The goal of the program leading to the Bachelor of Science degree in geology is to provide students with a broad spectrum of the various subdisciplines of geology, while at the same time honoring an emphasis in the traditional areas of mineralogy, igneous, metamorphic and sedimentary petrology, structural geology and stratigraphic principles. This curriculum will prepare students to enter graduate programs without deficiencies at the University of Arkansas or other established programs.
Requirements for a Major in Geology leading to the B.S. Degree: A minimum of 40 semester hours including GEOL 1113/1111L (or GEOL 3002), GEOL 1133/1131L, GEOL 2313, GEOG 3383, GEOL 3413, GEOL 3514, GEOL 4223, GEOL 4063 or GEOL 4433, GEOL 4863, GEOL 4924, GEOL 4666, and 9 additional geology course hours selected from GEOL or GEOS courses numbered 3000 or higher. Also, each student must complete CHEM 1103/1101L and CHEM 1123/1121L, College or University Physics (8 hours), MATH 2554 and MATH 2564 and a 3-hour upper-level science course approved by the student’s adviser.

Geology B.S. Nine-Semester Degree Program

Students wishing to follow the nine-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following nine-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

This program does require a summer field camp after the junior year.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
</tr>
<tr>
<td>4 †MATH 2554 Calculus I</td>
</tr>
<tr>
<td>2-4 GEOL 1113/1111L General Geology/Lab or †GEOL 3002 Geology for Engineers</td>
</tr>
<tr>
<td>4 CHEM 1103/1101L University Chemistry I/Lab</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d, e, and f as needed</td>
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<tr>
<td>16-18 Semester Hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
</tr>
<tr>
<td>4 †MATH 2564 Calculus II</td>
</tr>
<tr>
<td>4 GEOL 1133/1131L Environmental Geology/Lab</td>
</tr>
<tr>
<td>4 CHEM 1123/1121L University Chemistry II/Lab</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
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<tr>
<td>18 Semester Hours</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †GEOL 2313 Minerals and Rocks</td>
</tr>
<tr>
<td>4 PHYS 2094 University Physics I/Lab or PHYS 2013/2011 College Physics I/Lab</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
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<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
</tr>
<tr>
<td>16 Semester Hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††GEOL 3413 Sedimentary Rocks and Fossils</td>
</tr>
<tr>
<td>4 PHYS 2074 University Physics II/Lab or PHYS 2033/2031 College Physics II/Lab</td>
</tr>
<tr>
<td>†Core from area f if needed or General Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
</tr>
<tr>
<td>16 Semester Hours</td>
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</tbody>
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<table>
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<tr>
<th>Fall Semester Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††GEOL 3383 Principles of Landscape Evolution/Lab</td>
</tr>
<tr>
<td>4 ††GEOL 3514 Structural Geology</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, and e as needed</td>
</tr>
<tr>
<td>†Core from area f (if needed) or General Elective</td>
</tr>
<tr>
<td>16 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††GEOL 4223 Stratigraphy and Sedimentation/Lab</td>
</tr>
<tr>
<td>3 ††GEOL 4863 Geological Data Analysis/Lab</td>
</tr>
<tr>
<td>6 General Electives</td>
</tr>
<tr>
<td>12 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Semester Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††GEOL 4066 Principles of Geochemistry/Lab or GEOL 4433 Geophysics/Lab</td>
</tr>
<tr>
<td>3 †GEOL or GEOS electives numbered 3000 or above</td>
</tr>
<tr>
<td>Core from areas a, b, c, and e (as needed)</td>
</tr>
<tr>
<td>12 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††GEOL 4924 Earth System History (senior capstone course)</td>
</tr>
<tr>
<td>3-6 †GEOL or GEOS electives numbered 3000 or above</td>
</tr>
<tr>
<td>6 General Electives</td>
</tr>
<tr>
<td>13-16 Semester Hours</td>
</tr>
<tr>
<td>124 Total Hours</td>
</tr>
</tbody>
</table>

Writing Requirement: A scholarly writing assignment will be included in all geology courses numbered 2000 and above. Those papers submitted in geology courses 3000 and above will fulfill the Fulbright College writing requirement.

Requirements for a Minor in Geology: A minor in geology shall be awarded upon completion of the following course work: GEOL 1113/1111L (or 3002), GEOL 1133/1131L, GEOL 2313, two courses at the 3000-level, and one course at the 4000 level. Students are advised to consult with a geology faculty member to develop the course work program that best complements their major area of study.

Requirements for Departmental Honors in Geology: The Departmental Honors Program in Geology provides upper-division undergraduate students with an opportunity to formally participate in geologic research activities. Honors candidates carry out independent study and research under the guidance of the geology faculty. Outstanding student achievement will be recognized by awarding the distinction “Geology Scholar Cum Laude” at graduation. Higher degree distinctions may be awarded to truly outstanding students based upon the whole of their academic program and quality of honors research.

Honors candidates in geology must do the following:
1. Satisfy departmental and college requirements for a bachelor’s degree with honors.
2. Become a candidate no later than the second semester of their junior year.
3. Enroll in six hours of honors research GEOL 3901, GEOL 3911, GEOL 4922, GEOL 4932.
4. Take 12 hours in Honors Studies, which may include 6 hours of thesis.
5. Complete junior and senior honors courses GEOL 3901, GEOL 3911, GEOL 4922, GEOL 4932, and
6. Achieve a cumulative grade-point average of 3.30 in geology courses.

Geology (B.S.) Teacher Licensure in Life/Earth Science or Physical/Earth Science Requirements:
Students wanting to teach science in middle or secondary school should consult with an adviser in the College of Education and Health Professions.

For requirements for the M.S. degree in geology, see the Graduate School Catalog.

SEE PAGE 351 FOR GEOLOGY (GEOL) COURSES
Departmental Honors Program in History is open to history majors with a completion of an honors project or a senior thesis to fulfill this requirement. Each course (3000, 4000, 5000 level) must be approved by the student's departmental adviser. Satisfactory completion of a research paper, with a grade of "A" or "B" from an upper-division history professor, each history major will submit, prior to graduation, a substantial research paper. History majors are encouraged to design a program of study with both breadth and depth.

Writing Requirement: To fulfill the Fulbright College writing requirement, each history major will submit, prior to graduation, a substantial research paper. History majors are encouraged to design a program of study with both breadth and depth.

Requirements for a Major in History: 36 semester hours to include HIST 1003 (or HIST 1113H) and HIST 1123 (or HIST 1133H) and 1123H), HIST 2003 and HIST 2013, HIST 4893, as well as 21 hours in history courses numbered 3000 or above, at least 12 hours of which must be 4000 or above.

Students must select 3 hours from each of the following groups:

**Group 1: Europe, including Britain and Russia**
HIST 3003, HIST 3063, HIST 3443, HIST 3533, HIST 4003, HIST 4013, HIST 4023, HIST 4043, HIST 4053, HIST 4073, HIST 4083, HIST 4103, HIST 4113, HIST 4133, HIST 4143, HIST 4163, HIST 4183, HIST 4193, HIST 4213, HIST 4223, HIST 4243, HIST 4253, HIST 4283, HIST 4293

**Group 2: Africa, Asia, Latin America, Near East, Russia**
HIST 3033, HIST 3043, HIST 3203, HIST 3213, HIST 3223, HIST 3233, HIST 3473, HIST 4283, HIST 4293, HIST 4513, HIST 4533, HIST 4373, HIST 4383, HIST 4393, HIST 4413, HIST 4433, HIST 4783, HIST 4823

**Group 3: United States**
HIST 3263, HIST 3323, HIST 3383, HIST 3583, HIST 3593, HIST 4463, HIST 4763, HIST 4503, HIST 4513, HIST 4533, HIST 4543, HIST 4563, HIST 4573, HIST 4583, HIST 4613, HIST 4623, HIST 4643, HIST 4653, HIST 4663, HIST 4673, HIST 4703, HIST 4723, HIST 4733

Students may not receive credit for 3383 AND 4583. Russia may be counted for only one area. In consultation with an adviser, students who are history majors are encouraged to design a program of study with both breadth and depth.

Writing Requirement: To fulfill the Fulbright College writing requirement, each history major will submit, prior to graduation, a substantial research paper. History majors are encouraged to design a program of study with both breadth and depth.

Requirements for Departmental Honors in History: Admission to the Departmental Honors Program in History is open to history majors with a minimum grade-point average of 3.5 in all their work. Prospective Departmental Honors students must take 12 hours in Honors Studies, of which 6 hours must include HIST 3973H Honors Methods (Spring semester, junior year and HIST 399VH, Honors History Thesis, Fall or Spring semester, senior year). During the senior year, the honors candidate will complete the program by writing a senior honors thesis. Successful completion of the program will be recognized by the award of the distinction "History Scholar Cum Laude" at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate's program of honors studies.

**History Eight-Semester Degree Program**
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>15 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>3 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
<td></td>
</tr>
<tr>
<td>3 HIST 2003 History of the American People to 1877 or HIST 1003 Institutions and Ideas of Western Civilization I or HIST 1113 Institutions and Ideas of World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>3 MATH 2043, 2053, 2183, 2554 or Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 HIST 2013 History of the American People, 1877 to Present or HIST 1013 Institutions and Ideas of Western Civilization II or HIST 1123 Institutions and Ideas of World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HIST 1003 Institutions and Ideas of Western Civilization I or HIST 1113 Institutions and Ideas of World Civilizations I or HIST 2003 History of the American People to 1877 (if not taken earlier)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
<th>15 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HIST 1013 Institutions and Ideas of Western Civilization II or HIST 1123 Institutions and Ideas of World Civilizations II or HIST 2013 History of the American People, 1877 to Present (if not taken earlier)</td>
<td></td>
</tr>
<tr>
<td>3 Core from area g (if required) or Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 General Elective</td>
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</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HIST 3000 or 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 HIST 3000 or 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 General Electives</td>
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<tr>
<td>16 Semester Hours</td>
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</table>
**Spring Semester Year 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 φ HIST 3000 or 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 φ HIST 3000 or 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 † Core from area a, c, d, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>16 Semester Hours</td>
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</table>

**Fall Semester Year 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 φ HIST 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 φ HIST 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 † Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 HIST 4893 Senior Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>15 Semester Hours</td>
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</tr>
</tbody>
</table>

**Spring Semester Year 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 φ HIST 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 φ HIST 4000 level (from U.S., European or Other as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, c, d, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 General Elective</td>
<td></td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

124 Total Hours

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Requirements for a Minor in History: 15 semester hours not to include HIST 1003, HIST 1013, HIST 1113, or HIST 1123. A student must notify the department of his or her intent to minor.

For the combined major in history and African-American studies, see page 129.

For freshman history, see HIST 1003, 1013.

**History (B.A.) Social Studies Teacher Licensure Requirements:**

Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach social studies in middle school should consult with a middle-level adviser in the College of Education and Health Professions.

For requirements for advanced degrees in history, see the Graduate School Catalog.

For information regarding departmental scholarships, visit the Web at [http://www.uark.edu/depts/histinfo/history/sch.html](http://www.uark.edu/depts/histinfo/history/sch.html).

### HONORS STUDIES

Sidney Burris
Director of Honors Studies
517 Old Main
479-575-2509
http://www.uark.edu/honors

SEE PAGE 126 FOR FULBRIGHT COLLEGE HONORS INFORMATION AND REQUIREMENTS.

### HUMANITIES (HUMN)

David Fredrick
Chair of Studies
506 Old Main
479-575-6776
http://www.uark.edu/depts/h2p/index.html

- Distinguished Professor West
- Professors Burris, Cochran, Goodstein, Quinn, Stephens
- Adjunct Professor Vitali
- Associate Professors Adams, Coon, Davidson, Fredrick, Gordon, Jacobs, McCray, Robinson, Scheide, Sexton
- Assistant Professors Arrington, Tucker
- Adjunct Assistant Professor Del Gesso

The Humanities Program supports the Honors Humanities Project (H2P) as well as interdisciplinary coursework in Gender Studies, Medieval and Renaissance Studies, and Arts and Aesthetics. Humanities also sponsors courses in Classics, Medieval, and Renaissance cultures taught every semester and every other summer (during even years) at the Rome Study Center.

SEE PAGE 361 FOR HUMANITIES (HUMN) COURSES

### INTERNATIONAL RELATIONS (IREL)

Hoyt H. Purvis
Chair of Studies
116 Kimpel Hall
479-575-3601
http://www.uark.edu/~arsc/IR

The J. William Fulbright College of Arts and Sciences is strongly committed to the study of international relations and this program offers students a strong foundation for more advanced study as well as preparation for careers in an increasingly global economy and society. The degree offers a broad interdisciplinary course of study with a strong intercultural and international focus. Intensive language study and study abroad are especially encouraged.

Requirements for a Major in International Relations:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIIR 2813 Intro. to International Relations</td>
<td>3</td>
</tr>
<tr>
<td>Six hours of upper-division foreign language courses or equivalent. (May be satisfied with approved study abroad courses related to language field. If upper-division language courses or unavailable in field of study, (appropriate courses will be approved as substitutes.)</td>
<td>6-9</td>
</tr>
<tr>
<td>ECON 2013 Principles of Macroeconomics and ECON 2023 Principles of Microeconomics, or ECON 2143 Basic Economics and one upper-level international economics course: ECON 4633 International Trade Policy, or ECON 4643 International Macroeconomics &amp; Finance</td>
<td>6-9</td>
</tr>
</tbody>
</table>

- Courses must be selected from at least two departments.
- From the following (depending on ECON option selected):
- COMM 4343 Intercultural Communication
- ECON 4633 International Trade Policy, or ECON 4643 International Macroeconomics & Finance* (if not used to meet ECON requirement)
- GEOG 2003 World Regional Geography
- GEOG 4243 Political Geography
- HIST 3063 Military History
- HIST 3443 Modern Imperialism
- HIST 3533 World War II
- HIST 3583 U.S. and Vietnam
- HIST 4763 Diplomatic History
- PLSC 3533 Political Development
- PLSC 3803 International Organization

- (same as PLSC 2813)
- From 2023 Principles of Microeconomics, or ECON 2143 Basic Economics and one upper-level international economics course: ECON 4633 International Trade Policy, or ECON 4643 International Macroeconomics & Finance From the following (depending on ECON option selected):
- Courses must be selected from at least two departments.
PLSC 3813 International Law
PLSC 3823 Theories of International Relations
PLSC 3853 American Foreign Policy
PLSC 4513 Creating Democracies
PLSC 4803 Foreign Policy Analysis
PLSC 4813 Politics of the Cold War

Area Studies Concentration 9
Three hours of an Area Studies Colloquium (AIST, EUST, LAST, MEST, or RSST 4003) and approved area studies courses from GEOG, HIST, or PLSC. (A second Area Studies Colloquium may be taken with advanced approval.)
FIIR (IREL) 4003 International Relations Seminar 3
(Credits in study-abroad courses on an international topic or an honors colloquium on an international topic may be applied toward the major if approved in advance. Such courses may not be substituted for FIIR/PLSC 2813, the ECON requirement, or FIIR 4003.)

International Relations Eight-Semester Degree Program
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional BA Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

Fall Semester Year 1
3 ENGL 1013 Composition I
3-4 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554
3 PLSC 2003 American Nat'l. Government (meets requirement in core area b)
3 Foreign Language (as needed; see core area c)
3 FIIR 2813 Intro. to International Relations or Core from areas a or d (as needed)
15-16 Semester Hours

Spring Semester Year 1
3 ENGL 1023 Composition II
3 †MATH 2043, 2053, 2183 or Core from areas a or d (as needed)
3 FIIR 2813 Intro. to International Relations or Core from areas a or d (as needed)
3 Foreign Language (as needed; see core area c)
4 Core from area f (as needed)
16 Semester Hours

Fall Semester Year 2
3 ECON 2143 Basic Economics or †ECON 2013 Principles of Macroeconomics
3 Foreign Language (as needed; see core area c)
3 HIST 1003 Institutions and Ideas of Western Civilization I
3 Core from areas a or d (as needed)
4 Core from area f (as needed)
16 Semester Hours

Spring Semester Year 2
3 †Core area g (if required) or GEOG 2003 World Regional Geography
3 Foreign Language (as needed; see core area c)
3 HIST 1013 Western Civilization II
3 †ECON 2023 Microeconomics (if ECON 2013 completed in fall 2)
4 Core from area f (as needed)
16 Semester Hours

Fall Semester Year 3
3 †Upper Level Foreign Language
3 †ECON 4633 International Trade Policy or ECON 4643 International Macroeconomics & Fin.
3 GEOG 2003 World Regional Geography (if needed) or †IREL Course from list
3 †Area Studies Course
3 Core from area a or d (as needed)
15 Semester Hours

Spring Semester Year 3
3 †Upper Level Foreign Language
3 Core from area a or d (as needed)
3 Core from area a or d (as needed)
3 Core from area a or d (as needed)
3 †Area Studies Course or Minor Requirement Course
15 Semester Hours

Fall Semester Year 4
3 †FIIR 4003 International Relations Seminar (Completes Senior Writing Requirement)
3 †Area Studies Colloquium (if needed) or Other Area Studies Course
3 †IREL Course from list
3 Minor Requirement Course
3 Minor Requirement Course
1 Elective
16 Semester Hours

Spring Semester Year 4
3 †IREL Course from list or Minor Requirement Course (as needed)
3 †Area Studies Course or Minor Requirement Course (as needed)
3 Minor Requirement Course (as needed)
3 Core from areas a or d (as needed)
15 Semester Hours
124 Total Hours

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Disciplinary or Area Studies Minor
Students must complete a minor (15-18 hours) in one of these disciplines, consisting of approved international-related courses:
Anthropology (15)
Economics (18)
Geography (15)
History (15)
Political Science (18)
Asian Studies (15)
European Studies (15)
Latin American Studies (15 and language requirements)
Middle East Studies (18)
Russian Studies (18)

Approved Courses for Minor in Anthropology for International Relations majors:
ANTH 3003 World Prehistory
ANTH 3033 Egyptology
ANTH 3123 Anthropology of Religion
ANTH 3503 Power and Popular Protest in Latin America
ANTH 3523 Gender and Politics in Latin America
ANTH 3923H Honors Colloquium (for honors students if the topic is international-related)
ANTH 4123 Ancient Middle East
ANTH 4253 Peoples and Cultures of World Regions
ANTH 4513 African Religions: Gods, Witches, Ancestors

168 University of Arkansas, Fayetteville
Students who take ECON 2143 will be required to take an additional ECON 4643 International Macroeconomics & Finance or ECON 2143 Basic Economics and ECON 2023 Principles of Microeconomics.

ECON 2013 Principles of Macroeconomics
or ECON 2143 Basic Economics
ECON 3033 Microeconomic Theory
ECON 3133 Macroeconomic Theory
ECON 4633 International Trade Policy
ECON 4643 International Macroeconomics & Finance

*Students who take ECON 2143 will be required to take an additional upper division economics course to complete the minor.

Approved Courses for Minor in Economics for International Relations majors:
- GEOG 2003 World Regional Geography
- GEOG 2023 Economic Geography
- GEOG 3353 Economic Geography of NAFTA
- GEOG 3923H Honors Colloquium
  (for honors students if the topic is international-related)
- GEOG 4033 Geography of the Middle East
- GEOG 4243 Political Geography
- GEOG 4723 Australia and the Pacific Islands
- GEOG 4783 Geography of Europe
- GEOG 4793 Geographic Concepts for Global Studies

Approved Courses for Minor in Geography for International Relations majors:
- HIST 1113 Institutions and Ideas of World Civilization
- HIST 1123 Institutions and Ideas of World Civilization
- HIST 1123H Honors World Civilization
- HIST 3063 Military History
- HIST 3203 Colonial Latin America
- HIST 3213 Modern Latin America
- HIST 3443 Modern Imperialism
- HIST 3473 Palestine and Israel in Modern Times
- HIST 3503 Far East in Modern Times
- HIST 3533 World War II
- HIST 3583 The United States and Vietnam, 1945-1975
- HIST 3923H Honors Colloquium
  (for honors students if the topic is international-related)
- HIST 4033 History of Christianity
- HIST 3033 Islamic Civilization
- HIST 3043 History of the Modern Middle East
- HIST 3053 History of the Modern Middle East
- HIST 3203 Colonial Latin America
- HIST 3213 Modern Latin America
- HIST 3443 Modern Imperialism
- HIST 3473 Palestine and Israel in Modern Times
- HIST 3503 Far East in Modern Times
- HIST 3533 World War II
- HIST 3583 The United States and Vietnam, 1945-1975
- HIST 3923H Honors Colloquium
  (for honors students if the topic is international-related)
- HIST 4033 History of Christianity
- HIST 3033 Islamic Civilization
- HIST 3043 History of the Modern Middle East
- HIST 3053 History of the Modern Middle East
- HIST 3203 Colonial Latin America
- HIST 3213 Modern Latin America
- HIST 3443 Modern Imperialism
- HIST 3473 Palestine and Israel in Modern Times
- HIST 3503 Far East in Modern Times
- HIST 3533 World War II
- HIST 3583 The United States and Vietnam, 1945-1975
- HIST 3923H Honors Colloquium
  (for honors students if the topic is international-related)
- HIST 4003 Greece and the Ancient Near East
- HIST 4013 Alexander the Great and the Hellenistic World
- HIST 4023 The Roman Republic and Empire
- HIST 4043 Late Antiquity and the Early Middle Ages
- HIST 4053 Late Middle Ages
- HIST 4073 Renaissance and Reformation, 1300-1600
- HIST 4083 Early Modern Europe, 1600-1800
- HIST 4103 Europe in the 19th Century
- HIST 4113 Twentieth Century Europe, 1898-1939
- HIST 4133 Society and Gender in Modern Europe
- HIST 4143 Intellectual History of Europe Since the Enlightenment
- HIST 4163 Tudor-Stuart England
- HIST 4193 Great Britain, 1901-1982: Empire to Welfare State
- HIST 4213 The Era of the French Revolution
- HIST 4223 France Since 1815
- HIST 4243 Germany, 1789-1918
- HIST 4253 History of Germany, 1918-1949
- HIST 4283 Russia to 1861
- HIST 4293 Russia Since 1861
- HIST 4313 History of China to 1644
- HIST 4323 Modern China
- HIST 4333 Modern Japan
- HIST 4353 Middle East 600-1500
- HIST 4373 Mongol & Mamluk Middle East 1250-1520
- HIST 4383 The History of Sub-Saharan Africa
- HIST 4393 The Ottoman Empire and Iran 1300-1722
- HIST 4413 New Women in the Middle East
- HIST 4433 Social and Cultural History of the Modern Middle East
- HIST 4463 The American Frontier
- HIST 4473 Environmental History
- HIST 4763 Diplomatic History of U.S. 1900 to 1945

Approved Courses for Minor in Political Science for International Relations majors:
- 18 hours including PLSC 2003 or PLSC 2013. At least nine of these hours must be in courses numbered 3000 or above, and courses must be chosen from at least two of the five political science fields.
- PLSC 2813 Intro. to International Relations
- PLSC 3503 Government and Politics of East Asia
- PLSC 3523 Government and Politics of the Middle East
- PLSC 3533 Political Development
- PLSC 3553 Western European Politics
- PLSC 3573 Government and Politics of Latin America
- PLSC 3803 International Organization
- PLSC 3813 International Law
- PLSC 3823 Theories of International Relations
- PLSC 3853 American Foreign Policy
- PLSC 4503 African Politics
- PLSC 4513 Creating Democracies
- PLSC 4543 Government and Politics of Eastern Europe
- PLSC 4563 Government and Politics of Russia
- PLSC 4583 Political Economy of the Middle East
- PLSC 4593 Islam and Politics
- PLSC 4803 Foreign Policy Analysis
- PLSC 4813 Politics of the Cold War
- PLSC 4823 Foreign Policy of East Asia
- PLSC 4843 Middle East in World Affairs
- PLSC 4873 Inter-American Politics

Approved Courses for Minor in Asian Studies:
- Students must complete 15 credit hours of courses from the list of approved Asian Studies courses in the catalog, including at least three hours in AIST 4003 Asian Studies Colloquium.

Approved Courses for Minor in European Studies:
- Students must fulfill the Colloquium (EUST 4003) and language requirements for European Studies minors described in the catalog and must complete 12 hours from the list of approved European Studies courses in the catalog, including at least three hours in EUST 4003 European Studies Colloquium.

Approved Courses for Minor in Latin American Studies:
- Students must fulfill the Colloquium (LAST 4003) and language requirements for Latin American Studies minors described in the catalog and must complete 12 hours from the list of approved Latin American studies courses listed in the catalog.

Approved Courses for Minor in Middle East Studies:
- Students must complete a minimum of 9 hours of approved MEST core courses, 3 hours in the MEST Colloquium (MEST 4003), and 6 hours of Arabic beyond the 12 credit college language requirement.
Approved Courses for Minor in Russian Studies:
Students must fulfill the Colloquium (RSST 4003) and language requirements for Russian Studies described in the catalog and must complete 12 hours from approved Russian Studies courses listed in the catalog.

JOURNALISM (JOUR)
THE WALTER J. LEMKE DEPARTMENT OF

Patsy G. Watkins
Chair of the Department
116 Kimpel Hall
479-575-3601
http://uark.edu/journalism
- Professors Carpenter, Foley, Purvis, Wicks
- Professors Emeriti Ingenthen, Reed
- Associate Professors Jordan, Miller, Montgomery, Stockdell, Watkins
- Assistant Professor Fosu
- Instructors Ledbetter, Martin, Shurlds
- Instructor Emerita Belzung

The purpose of the Walter J. Lemke Department of Journalism is to provide students with knowledge of the history, theory, and ethics of mass communications, to educate students in journalistic skills, including the ability to express themselves logically and clearly, and to guide them in securing specialized knowledge of society appropriate to journalistic careers.

Journalism majors must fulfill the requirements for either the news/editorial option, the advertising/public relations option, or the broadcast option. A minimum of 84-85 hours in non-journalism courses must be applied toward the 124 hours required by the college for a Bachelor of Arts degree.

Writing Requirement: Students may meet the college writing requirement by producing a satisfactory honors thesis, or research/analytical paper. The research/analytical paper may be written in any journalism course numbered JOUR 3133 or higher or by registering for JOUR 498V. Rules governing the research/analytical paper may be obtained from the journalism department or from any journalism professor.

Requirements for a B.A. degree in Journalism: A minimum of 33 semester hours in journalism, including JOUR 1023, JOUR 1033, and JOUR 3633. A minimum grade of “C” is required in all journalism courses that serve as prerequisites for advanced journalism courses. In certain courses a minimum grade of “B” is required. Also required is ENGL 2013. Students must select a sequence when they enter the department. Specific courses in addition to the journalism courses are required only for the advertising/public relations sequence. The requirements for each sequence are as follows:

News/Editorial: JOUR 2013, JOUR 3013, JOUR 3123, and either JOUR 3023 or JOUR 4553 are required, plus any four additional journalism courses for which the student has prerequisites. It is recommended that one course choice be an internship.

Broadcast: JOUR 2032/2031L, JOUR 3072/3071L, JOUR 4863, and JOUR 4873 are required, plus any four additional journalism courses for which the student has prerequisites. It is recommended that one course choice be an internship. Also required are ECON 2143, MKTG 3433, and MKTG 3553. Students seeking admission to the Ad/PR Sequence must have an overall GPA of 2.25 or higher: 1) to be admitted to the Ad/PR Sequence, and 2) to enroll in JOUR 3723 and JOUR 3743. Ad/PR Sequence students are required to earn a grade of “B” or higher in both JOUR 3723 and JOUR 3743 to qualify to take all upper level Ad/PR sequence courses. Students may retake JOUR 3723 and JOUR 3743 only once to earn a grade of “B” or higher.

Journalism Eight-Semester Degree Programs
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The journalism major includes three sequences: News/Editorial, Broadcast, and Advertising/Public Relations. Each is shown below.

The following eight-semester plans refer to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

Advertising and Public Relations Sequence

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>3-4 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>15-16 Semester Hours</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>3-4 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 JOUR 1023 Media and Society or JOUR 1033 Fundamentals of Journalism (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 ECON 2143 Basic Economics or Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>16-17 Semester Hours</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 ECON 2143 Basic Econ. (if needed) or Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 JOUR 1023 Media and Society or JOUR 1033 Fundamentals of Journalism (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>15 Semester Hours</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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</thead>
<tbody>
<tr>
<td>3 †ENGL 2013 (completes core group g) if needed or †Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 †MKTG 3433 Introduction to Marketing Strategy</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>15 Semester Hours</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 †JOUR 3723 Advertising Principles or JOUR †3743 Public Relations Principles</td>
<td></td>
</tr>
<tr>
<td>3 †MKTG 3553 Consumer Behavior</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 †Upper-level elective in Fullbright College</td>
<td></td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †JOUR 3723 Advertising Principles (if not taken earlier) or †JOUR 3743 Public Rel. Principles</td>
<td></td>
</tr>
<tr>
<td>3 †ENGL 2013 (completes core group g) if not taken earlier or †Advanced Level Elective</td>
<td></td>
</tr>
</tbody>
</table>

University of Arkansas, Fayetteville

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### Broadcast Sequence

#### Fall Semester Year 1
3  †JOUR 3633 Media Law
3  Core from areas a, b, c, d or e (as needed)
4  Core from area f (as needed)
16  Semester Hours

#### Spring Semester Year 1
3  JOUR Elective
3  †JOUR 4143 Public Relations Writing (or in Spring Semester 4)
3  †JOUR 4423 Creative Strategy & Execution (or in Spring Semester 4)
3  †JOUR 4453 Media Planning & Strategy (or in Spring Semester 4)
3  †Advanced Level Elective
1  General Elective
16  Semester Hours

#### Fall Semester Year 2
3  †JOUR 2032/2031L Broadcast News Reporting I / Lab
3  Core from areas a, b, c, d or e (as needed)
3  Core from area f (as needed)
3  Core from area f (as needed)
3  Advanced Elective
15  Semester Hours

#### Spring Semester Year 2
3  †ENGL 2013 Essay Writing (completes core area g) or †Advanced Level Elective
3  †JOUR 3072/3071L Broadcast News Reporting II/Lab
3  Core from area a, b, c, d or e (as needed)
3  Core from area a, b, c, d or e (as needed)
3  General Elective
15  Semester Hours

#### Fall Semester Year 3
3  †JOUR 4863 Television News Reporting I/Lab
3  †JOUR 3635 Media Law
3  Core from areas a, b, c, d or e (as needed)
3  Core from area f (as needed)
16  Semester Hours

### News/Editorial Sequence

#### Fall Semester Year 1
3  ENGL 1013 Composition I
3-4  MATH 1203 (If required) or †MATH 2043, 2053, 2183 or 2554
3  JOUR 1023 Media and Society
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
15-16  Semester Hours

#### Spring Semester Year 1
3  ENGL 1023 Composition II
3  †MATH 2043, 2053, 2183 or Core from areas a, b, c, d or e (as needed)
3  JOUR 1033 Fundamentals of Journalism
4  Core from area f (as needed)
3  Core from areas a, b, c, d or e (as needed)
16  Semester Hours

#### Fall Semester Year 2
3  †JOUR 2013 News Reporting I
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
3  General Elective
15  Semester Hours

#### Spring Semester Year 2
3  †ENGL 2013 Essay Writing (completes core area g) or †Advanced Level Elective
3  †JOUR 3123 Feature Writing
3  †JOUR 3633 Media Law
3  Core from areas a, b, c, d or e (as needed)
3  Core from area f (as needed)
15  Total Hours

#### Fall Semester Year 3
3  †JOUR 498V Journalism Writing Requirement or Elective
3  †JOUR upper level elective
1  †JOUR upper level elective
3  †ENGL 2013 if still needed (completes core area g) or †Advanced Level Elective
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
15  Semester Hours

#### Spring Semester Year 3
3  †JOUR upper level elective
3  †JOUR upper level elective
3  Core from areas a, b, c, d or e (as needed)
3  Core from areas a, b, c, d or e (as needed)
3  †Advanced Level Elective
3  General Elective
15  Semester Hours
### Combined Majors

**Combined Major in Journalism and Political Science:** The combined major in journalism and political science has been developed for students who wish to combine their strong interests in both journalism and political science. There are two journalism options available: Public Affairs Reporting and Political Advertising and Promotion. The journalism requirement may be satisfied by 24 semester hours of courses, including JOUR 1023, JOUR 1033, and JOUR 3653. The remaining hours are filled from the following options.

Those wishing to emphasize Public Affairs Reporting can choose from either print or broadcast news:

- Print News: JOUR 1033, JOUR 3013, JOUR 3023, JOUR 4043, and one additional journalism course.
- Broadcast News: JOUR 2032/2031L, JOUR 3073, JOUR 4043, JOUR 4863, and JOUR 4873.

Those wishing to emphasize Political Advertising and Promotion take the following courses: JOUR 3723, JOUR 3743, JOUR 4043, and 6 hours of advanced journalism courses. Students should check course prerequisites.

The political science requirement may be satisfied by 24 semester hours of courses, including PLSC 2003, PLSC 2013, PLSC 4373, and at least 15 additional hours of advanced political science courses elected from one or the other of two field concentrations. Those wishing to emphasize American political affairs may elect the additional hours from the following:

- PLSC 3103
- PLSC 3113
- PLSC 3153
- PLSC 3183
- PLSC 3203
- PLSC 3223
- PLSC 3243
- PLSC 3253
- PLSC 3603
- PLSC 3635
- PLSC 3923H
- PLSC 3913
- PLSC 3933
- PLSC 394V
- PLSC 3973
- PLSC 3983
- PLSC 399VH
- PLSC 4193
- PLSC 4203
- PLSC 4213
- PLSC 4223
- PLSC 4243
- PLSC 4253
- PLSC 4273
- PLSC 4813
- PLSC 4823
- PLSC 4903

Alternatively, a foreign affairs concentration may be pursued by electing the advanced hours from the following courses:

- PLSC 3503
- PLSC 3523
- PLSC 3533
- PLSC 3553
- PLSC 3573
- PLSC 3603
- PLSC 3803
- PLSC 3813
- PLSC 3823
- PLSC 3853
- PLSC 3923H
- PLSC 394V
- PLSC 3953
- PLSC 3963
- PLSC 3973
- PLSC 3983
- PLSC 399VH
- PLSC 4273
- PLSC 4503
- PLSC 4513
- PLSC 4543
- PLSC 4563
- PLSC 4573
- PLSC 4583
- PLSC 4593
- PLSC 4803
- PLSC 4843
- PLSC 4873

### Journalism/Political Science Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following 8-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>† Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.</td>
<td>15</td>
</tr>
<tr>
<td>‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter</td>
<td>12</td>
</tr>
</tbody>
</table>

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter</td>
<td>15</td>
</tr>
<tr>
<td>‡ Meets 40-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter</td>
<td>12</td>
</tr>
</tbody>
</table>

### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter</td>
<td>15</td>
</tr>
<tr>
<td>‡ Meets 40-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter</td>
<td>12</td>
</tr>
</tbody>
</table>

### University of Arkansas, Fayetteville
Combined Major in Journalism and English: The combined major in journalism and English is recommended for those students who have a strong interest in these two related fields. The journalism requirement for the combined major is 24 semester hours including JOUR 1023, JOUR 1033, and JOUR 3633. The remaining 15 hours are filled from one of the two following options:

Print: JOUR 2013, JOUR 3013, JOUR 3023, JOUR 3123, and one additional journalism course.

Broadcast: JOUR 2023/2031L, JOUR 3072/3071L, JOUR 4863, JOUR 4873, and one additional journalism course.

For the eight-semester program plan and the English course requirements for the combined major see notes under department of English on page 156.

Journalism (B.A.) Teacher Licensure Requirements:

Students interested in obtaining teacher licensure may not obtain licensure in journalism alone. Licensure in another discipline must be obtained, and journalism may be added as an additional area of licensure. Please refer to the Secondary Education Requirements for Fulbright College Students on page 118 or contact your departmental adviser or an adviser in the College of Education and Health Professions.

Journalism for Agricultural Majors: A list of 18 hours of journalism courses is available for students in the College of Agricultural, Food and Life Sciences. See the Bumpers College section of this catalog for these journalism courses. This program is recommended for students who plan to work in public relations in these areas. It is also recommended for students who expect to enter extension work in agriculture and home economics and who will use the mass media to promote their programs.

SEE PAGE 365 FOR JOURNALISM (JOUR) COURSES

LATIN AMERICAN STUDIES (LAST)

Steven M. Bell
Chair of Studies
605 Kimpel Hall
479-575-2951
http://www.uark.edu/depts/lastinfo/

• Professors Britton, Horowiz (economics), Graff, Heht (geography), Purvis (journalism and political science), Restrepo (foreign languages)
• Associate Professors Bell (foreign languages), Montgomery (journalism), Ryan (political science), Striffler (anthropology)
• Assistant Professors Ruiz, Villalobos (foreign languages), Erickson (anthropology), Kali, Méndez, Reyes (economics), Sloan (history), Boyas (social work), Bridges (psychology), Corrigan (communications)

Students interested in Latin America and wishing to maximize their potential for academic, business, professional, or government careers related to the area, may earn a combined major or a minor in Latin American studies together with a major in another discipline in Fulbright College. Advice on appropriate combinations of Latin American studies with other majors as well as individual approval of such combinations may be obtained from the LAST program director. New students in this program must officially declare the combined major and notify the LAST program director. Degree checks must also be cleared with the program director. Freshmen and sophomores considering this program are advised to begin their study of Spanish or Portuguese as early as possible.

Requirements for a Minor in Latin American Studies: Students wishing to minor in Latin American studies must fulfill the Colloquium (LAST 4003) and the language requirements described below, and must complete at least 12 hours from among the electives listed below. Electives must include courses from at least two different academic departments. Included in the 12 hours may be 3 additional hours of LAST 4003, provided the topic is different.

Requirements for a Major in Latin American Studies:

Language Competence: The student must complete SPAN 2013 (or equivalent). Provisions are available for recognition of language skills gained by other means than formal course work taken at the University of Arkansas. See information under the entry in the department of foreign languages. Further
functional work in Spanish or Portuguese as well as study and residence in a Latin American nation can serve to strengthen language competence and are encouraged.

**Colloquium:** The student must complete at least three hours in the interdepartmental colloquium, LAST 4003. The Colloquium may be repeated, with the advisor's approval, provided the topic is different.

**Electives:** The student must complete 18 hours, in addition to the LAST Colloquium, in courses with specific Latin American content, or individualized study options under instructors teaching Latin American studies. Students choosing to take individualized readings or directed research courses must obtain the approval of the director of the area studies program. In the selection of the electives, the following conditions apply:
1. Courses must be selected from at least three different departments.
2. A maximum of nine hours may be submitted from courses taken in any one department.

The following courses and individualized study options may be taken in fulfillment of elective requirements (for detailed descriptions please see the listings under the individual departmental headings):

**Anthropology**
- ANTH 3503 Power and Popular Protest in Latin America
- ANTH 3513 Latinos in the US
- ANTH 3523 Gender and Politics in Latin America
- ANTH 4173 The Latin American City
- ANTH 448V Individual Studies in Anthropology

**Economics**
- ECON 3843 Economic Development & Multilateral Finance

**Geography**
- GEOG 2003 World Regional Geography
- GEOG 410V Special Problems in Geography
- GEOG 4173 The Latin American City

**History**
- HIST 3203 Colonial Latin America
- HIST 3213 Modern Latin America
- HIST 4173 The Latin American City

**Latin American Studies**
- LAST 2013 Intro. to Latin American Studies
- LAST 3013 Modern Latin American Lit in Translation
- LAST 4003 Latin American Studies Colloquium
- LAST 4173 The Latin American City

**Political Science**
- PLSC 3573 Governments and Politics of Latin America
- PLSC 394V Readings in Political Science
- PLSC 4873 Inter-American Politics
- PLSC 5573 Political Change/Latin America

**Spanish**
- SPAN 3103 Cultural Readings
- SPAN 3113 Intro. to Literature
- SPAN 4133 Survey of Spanish-American Literature I
- SPAN 4223 Latin American Civilization
- SPAN 4243 Literature and Culture in the Hispanic United States
- SPAN 4253 Latin American Cinema and Society
- SPAN 475V Special Investigations
- SPAN 5253 Colonial Literature and Culture
- SPAN 5393 19th Century Spanish-American Literature
- SPAN 5463 20th Century Spanish-American Literature

**Requirements for Honors in LAST:** The Honors Program in Latin American studies gives junior and senior students of high ability the opportunity to enroll in enriched courses and conduct independent research culminating in an honors thesis. In addition to satisfying the general Fulbright College requirements for graduation and the basic eligibility requirements for honors as established by the Honors Council, candidates for honors in Latin American studies must complete 12 hours of honors credit in partial satisfaction of requirements for the co-major. One to six of these may be thesis hours (LAST 399VH). The preferred method for satisfying the remaining hours is to enroll in the colloquium at least once for honors credit (LAST 4003H) and to take relevant honors colloquia or graduate courses (with permission) in one of the departments contributing to this interdisciplinary area study. The thesis committee shall include a representative from the major discipline (in the case of multiple majors, from the discipline contributing most significantly to the topic). Successful completion of these requirements will be recognized by the award of the distinction “Latin American Studies Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in exceptional cases and are based upon the whole of the candidate's program of honors studies.

SEE PAGE 367 FOR LATIN AMERICAN STUDIES (LAST) COURSES

**MATHEMATICAL SCIENCES (MASC)**

Allan Cochran
Chair of the Department
301 Science and Engineering
479-575-3351

- Distinguished Professor Schein
- Professors Akeroyd, Brewer, Cochran, Feldman, Goodman-Strauss, Luecking, Madison
- Professors Emeriti Duncan, Dunn, Keown, Kimura, Long, Scroggs, Summers
- Associate Professors Arnold, Capogna, Hogan, Johnson, Lanzani, Meaux, Meek, Petris, Ryan
- Associate Professors Emeriti Monroe, Sekiguchi
- Assistant Professors Chan, Dingman, Petris, Rieck, Song
- Visiting Assistant Professors Munasinghe
- Instructors Korth, Shores, Tjani, Woodland
- Instructor Emeritus Lieber, Mackey, M. Wickliff

**Requirements for a Major in Mathematics, B.A. Degree:** MATH 2103, MATH 2574, MATH 4932 and 18 semester hours of courses in mathematics numbered above 3000, including MATH 3083 and MATH 3113.

**Writing Requirement for both B.A. and B.S. Degrees:** The writing requirement for mathematics majors will be satisfied by writing a paper based on the student's research of a mathematical topic under the direction of a faculty member. Typically, one hour of credit in MATH 400V will be awarded for successfully completing the paper. An honors paper or senior thesis will satisfy this requirement. The student should consult his or her adviser for details.

**Mathematics B.A. Eight-Semester Degree Program**

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

University of Arkansas, Fayetteville
Requirements for a Major in Mathematics, B.S. Degree: As a part of the requirements for a B.S. degree with a major in mathematics, the student must complete MATH 2103, MATH 2574, MATH 3083, MATH 3113, MATH 3404, MATH 4513, MATH 4932, and CSCE 2003/2001L. In addition, for the B.S. degree in mathematics, the student is required to complete one of the following three options:

1. A program for the student who wishes to prepare for either applied work in mathematics or graduate work in some field other than mathematics or statistics,
2. A program for the student who is seeking a broad background in mathematics or who wishes to study mathematics at the graduate level,
3. A program for the student who wishes to emphasize statistics or who intends to study statistics at the graduate level.

The courses required for option (1) are MATH 3423, either MATH 4353 and 4363, or STAT 3013 and 4003, plus three semester hours of electives from mathematics courses numbered above 3000. Strongly recommended electives in this program are MATH 4523 and MATH 4443.

The courses required for option (2) are MATH 4523, MATH 4443, MATH 4113 and three hours of electives from mathematics courses numbered above 3000.

The courses required for option (3) are MATH 3353, STAT 3013, STAT 4003, STAT 4001L, STAT 4033, STAT 4043. Strongly recommended electives in this program are STAT 5103 and STAT 5113.

All of the electives used in fulfilling the requirements for either of the baccalaureate programs in mathematics must be approved by the student's adviser.

The science requirement for the Bachelor of Science degree in mathematics consists of two of the five course sequences as listed:

1. BIOL 1543/1541L and one of BIOL 2533, BIOL 1613/1611L, BIOL 1603/1601L or BIOL 2013/2011L
2. CENG 2013/2011L and CSCE 3143
3. CHEM 1103/1101L, CHEM 1123/1121L
4. GEOL 1113/1111L, GEOL 1133/1131L
5. PHYS 2054, PHYS 2074 (College Physics will not substitute)

In addition, one advanced course must be chosen from one of the two chosen areas. Courses taken to satisfy this requirement must be approved by the department of mathematical sciences.

A 2.00 cumulative grade-point average on all work completed in the department of mathematical sciences will be required for graduation with a B.A. or B.S. degree.

Writing Requirement for both B.A. and B.S. Degrees: The writing requirement for mathematics majors will be satisfied by writing a paper based on the student's research of a mathematical topic under the direction of a faculty member. Typically, one hour of credit in MATH 400V will be awarded for successfully completing the paper. An honors paper or senior thesis will satisfy this requirement. The student should consult his or her adviser for details.

Mathematics B.S. Eight-Semester Degree Programs

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The B.S. degree in mathematics includes three options: Industrial, Graduate Study, and Statistics. The eight-semester plan for each is shown below.

The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.
### Option 1 (Applied)

#### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 4 †MATH 2554 Calculus I
- 3 Core from areas a, b, c or e (as needed)
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- **16 Total Hours**

#### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 4 †MATH 2564 Calculus II
- 3 †MATH 2103 Discrete Mathematics
- 3 Core from areas a, b, c or e (as needed)
- 4 CSCE 2003/2001L Programming Foundations
- **17 Total Hours**

#### Fall Semester Year 2
- 4 †MATH 2574 Calculus III
- 3 †MATH 3083 Linear Algebra or Elective
- 3 Core from areas a, b, c or e (as needed)
- 3 Core from areas a, b, c or e (as needed)
- 4 Science Sequence 1 (continued)
- **17 Total Hours**

#### Spring Semester Year 2
- 4 †MATH 3404 Differential Equations or †MATH 4353 Numerical Linear Algebra
- 3 †STAT 3013 Probability and Statistics or †MATH 3423 Advanced Applied Mathematics
- 3 Core from area f or Core from areas a, b, c or e (as needed)
- 4 Science Sequence 1 (continued)
- **17 Total Hours**

#### Fall Semester Year 3
- 3-4 †STAT 4003/4001L Statistical Methods and Lab or †MATH 4363 Numerical Analysis II (as needed)
- 3 †MATH 3083 Linear Algebra or Elective
- 3 †MATH 3423 Advanced Applied Mathematics
- 3 Core from area f or Core from areas a, b, c or e (as needed)
- 3 General Elective
- **15-16 Total Hours**

#### Spring Semester Year 3
- 3 †MATH 3113 Abstract Algebra
- 3 †MATH/STAT 3000-4000 Level Elective
- 4 Science Sequence 2
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- **16 Total Hours**

#### Fall Semester Year 4
- 3 †MATH 4513 Advanced Calculus
- 4 Science Sequence 2 (continued)
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- 1 †MATH 400(1) Senior Writing Project
- **14 Total Hours**

#### Spring Semester Year 4
- 2 †MATH 4932 Math Major Seminar
- 3 †MATH/STAT 3000-4000 Level Elective
- 4 †Science 3 (Advanced Course in Sequence 1 or 2 above)
- 6 General Electives
- **15 Semester Hours**
- **124 Total Hours**

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

### Option 2 (Pure)

#### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 4 †MATH 2554 Calculus I
- 3 Core from areas a, b, c or e (as needed)
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- **16 Semester Hours**

#### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 4 †MATH 2564 Calculus II
- 3 †MATH 2103 Discrete Mathematics
- 3 Core from areas a, b, c or e (as needed)
- 4 CSCE 2003/2001L Programming Foundations
- **17 Semester Hours**

#### Fall Semester Year 2
- 4 †MATH 2574 Calculus III
- 3 †‡MATH 3083 Linear Algebra or Elective
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- 4 Science Sequence 1
- **17 Semester Hours**

#### Spring Semester Year 2
- 4 †MATH 3404 Differential Equations or †MATH 4353 Numerical Linear Algebra
- 3 †‡MATH 3113 Introduction to Abstract Algebra I
- 3 Core from area f (if needed) or Core from areas a, b, c or e (as needed)
- 3 Core from areas a, b, c or e (as needed)
- 4 Science Sequence 1
- **17 Semester Hours**

#### Fall Semester Year 3
- 3 †‡ MATH 4513 Advanced Calculus I
- 3 †‡ MATH 3083 Linear Algebra (if needed) or Core from areas a, b, c or e (as needed)
- 4 Science Sequence 2
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- **16 Semester Hours**

#### Spring Semester Year 3
- 3 †‡ MATH 4523 Advanced Calculus II
- 3 †‡ MATH 4443 Complex Variable for Application
- 4 Science Sequence 2
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- **16 Semester Hours**

#### Fall Semester Year 4
- 3 †‡ MATH 4113 Introduction to Abstract Algebra II
- 3 †‡ Science 3 (Advanced Course in Sequence 1 or 2 above)
- 3 Core from areas a, b, c or e (as needed)
- 3 General Elective
- 1 †‡ MATH 400(1) Senior Writing Project
- **14 Semester Hours**

#### Spring Semester Year 4
- 2 †‡ MATH 4932 Math Major Seminar
- 3 †‡ MATH/STAT 3000-4000 Level Elective
- 3 Core from areas a, b, c or e (as needed)
- 6 General Electives
- **15 Semester Hours**
- **124 Total Hours**

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
### Option 3 (Statistics)

#### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>3 MATH 2554 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>Science Sequence</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
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</tr>
<tr>
<td><strong>Total Hours</strong></td>
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#### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1023 Composition II</td>
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<tr>
<td>3 MATH 2564 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>3 MATH 2103 Discrete Mathematics</td>
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<tr>
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<tr>
<td>CSCE 2003/2001L Programming Foundations</td>
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#### Fall Semester Year 2

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<tbody>
<tr>
<td>4 MATH 2574 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>3 MATH 3083 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>4 STAT 4083/4001L Statistical Methods / Lab</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
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<td><strong>Total Hours</strong></td>
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#### Spring Semester Year 2

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<tr>
<td>4 MATH 3404 Differential Equations</td>
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<tr>
<td>3 STAT 3013 Probability and Statistics</td>
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<tr>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
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<td><strong>Total Hours</strong></td>
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#### Fall Semester Year 3

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<tr>
<td>Science Sequence</td>
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<tr>
<td>3 MATH 4513 Advanced Calculus I</td>
<td>3</td>
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<tr>
<td>3 MATH 3083 Linear Algebra or General Elective</td>
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<tr>
<td>3 STAT 4033 Nonparametric Stat Methods</td>
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<tr>
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<tr>
<td><strong>Total Hours</strong></td>
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#### Spring Semester Year 3

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<tr>
<td>Science Sequence</td>
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<tr>
<td>3 MATH 3553 Numerical Methods</td>
<td>3</td>
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<tr>
<td>3 MATH 3113 Introduction to Abstract Algebra I</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>General Elective</td>
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<tr>
<td><strong>Total Hours</strong></td>
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#### Fall Semester Year 4

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<tbody>
<tr>
<td>STAT 4043 Sampling Techniques</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Science 3 (Advanced Course in Sequence 1 or 2 above)</td>
<td>3</td>
</tr>
<tr>
<td>General Elective</td>
<td>3</td>
</tr>
<tr>
<td>MATH 400(1) Senior Writing Project</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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</tr>
</tbody>
</table>

#### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 4932 Math Major Seminar</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>General Electives (as needed to meet 124 hour requirement)</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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</tr>
</tbody>
</table>

**Requirements for Departmental Honors in Mathematics:** The Departmental Honors Program in Mathematics is designed for the superior student and is intended to help the student develop a more comprehensive view of the nature of mathematics. The program provides a vehicle for the recognition of the achievements of work beyond the usual course of study and earns the student the distinction “Mathematics Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate's program of honors studies.

**Graduation with honors:** The candidate must satisfy the requirements set forth by the Honors Council. The candidate must also obtain at least a 3.50 grade-point average in mathematics courses numbered MATH 2554, MATH 2564, MATH 2574, MATH 3083, MATH 3113, MATH 3404, and MATH 4513, as well as in the additional mathematics courses necessary to complete the requirements for the chosen option. In addition, a grade of “D” or “F” in any other course offered by the department disqualifies a student for honors.

Candidates must take one year of honors mathematics in their senior year. This course will require an acceptable paper and will carry two hours of credit per semester. The quality of this paper, along with the execution of the rest of the student’s honors program including the overall academic performance, will be used in determining the distinction between Honors and High Honors.

**Requirements for a Minor in Statistics:** MATH 2554 and 12 hours of non-cross-listed courses in the statistics section of this catalog, including 9 hours in courses numbered 3000 and above. A student must notify the department of his or her intent to minor.

**Mathematics (B.A. or B.S.) Teacher Licensure Requirements:** Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach mathematics in middle school should consult with a middle level adviser in the College of Education and Health Professions.

**Advising Note:** Students in Fulbright College of Arts and Sciences who, in the opinion of the department of mathematical sciences, need additional work in the fundamentals are required to take MATH 0003. Using the student’s record and their ACT or Mathematics Placement Test scores, a student’s adviser will suggest enrollment in appropriate courses (a mathematics ACT score below 19 indicates placement in MATH 0003). This course will require an acceptable paper and will carry two hours of credit per semester. The quality of this paper, along with the execution of the rest of the student’s honors program including the overall academic performance, will be used in determining the distinction between Honors and High Honors.

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**Statistics (STAT)**

Laurie Meaux
Chair of Studies
301 Science and Engineering
479-575-3351
• Associate Professors Meaux, Petris
• Assistant Professor Song

**Requirements for a Minor in Statistics:** MATH 2554 and 12 hours of non-cross-listed courses in the statistics section of this catalog, including 9 hours in courses numbered 3000 and above. A student must notify the department of mathematical sciences of his or her intent to minor.

**Statistics (STAT) COURSES**

**MEDICAL SCIENCES AND DENTISTRY**

See page 126, under Combined Academic and Medical or Dental Degree and also the discussion of the pre-medical programs and the pre-dental program under the section on Health Related Professions.
Requirements for a Minor in Medieval and Renaissance Studies (MRST): (15 credit hours) Students must take HIST 1113H or HIST 1113, Honors World Civilization I or non-honors section, or HUMN 1124H (the Medieval segment of the Honors Humanities Project) and complete at least 12 additional credit hours selected from the courses listed below or approved by the Chair of Studies. A maximum of 6 hours may be presented from courses taken in the student’s designated major.

Required Core Course (3 hours)

HUMN 1124H Honors Equilibrium of Cultures, 500-1600 CE or HIST 1113H Honors World Civilization I (may also be taken as non-honors, HIST 1113 World Civilization I)

12 hours of electives to be chosen from the following (a maximum of six hours may be presented from courses taken in the student’s major department):

- ARHS 4843 Medieval Art
- ARHS 4853 Italian Renaissance Art
- ARHS 4863 Northern Renaissance Art
- ARCH 2233 History of Architecture I
- ARCH 4023 Adv. Architectural Studies
- DRAM 4773 Acting Shakespeare
- ENGL 3433 Intro. to Chaucer
- ENGL 4303 Intro. to Shakespeare
- LATN 5633 Medieval Latin
- SPAN 5203 Medieval Spanish Literature
- HIST 3033 Islamic Civilization
- HIST 4043 Late Antiquity and the Early Middle Ages
- HIST 4053 Late Middle Ages
- HIST 4073 Renaissance and Reformation, 1300-1600
- HIST 4163 Tudor-Stuart England
- HIST 4313 China to 1644
- HIST 4353 Middle East, 600-1500
- HIST 4373 Mongol and Mamluk Middle East, 1250-1520
- HIST 4393 Ottoman Empire and Iran (1300-1722)
- HUMN 3923H Honors Colloquium (when offered as a MRST course)
- HUMN 425V Special Topics Colloquium (when offered as a MRST course)
- MUHS 3703 History of Music to 1800
- PHIL 4013 Platonism and the Origin of Christian Theology
- PHIL 4023 Medieval Philosophy
- PLSC 3953 Ancient and Medieval Political Thought

Requirements for a Major in MEST: To attain a major in MEST, the student is required to have a second major in one of the following approved areas: anthropology, communication, economics (BA), French, geography, history, international relations, journalism, political science, sociology, or Spanish. Up to nine hours of courses in the second major with Middle East content may be counted toward the MEST major with the permission of the MEST director.

Total Hours Required: (30 semester hours) Students must complete 3 hours in Gateways to the Middle East (MEST 2013), 3 hours in the MEST Colloquium (MEST 4003), 6 hours of Arabic language beyond the Fulbright College language proficiency requirement (ARAB 2013), and 18 hours in additional MEST or MEST-approved core courses. MEST courses must be in at least two disciplines, with no fewer than 9 hours of MEST core courses in each discipline.

Gateways to the Middle East: (3 hours) Students must complete 3 hours of Gateways to the Middle East (MEST 2013).

MIDDLE EAST STUDIES COLLOQUIUM: (3 hours) Students must complete at least 3 hours in the Middle East Studies Colloquium (MEST 4003). The Colloquium may be repeated with a change of subject for a maximum of 6 credits.

Arabic Requirement: (6 hours of MEST credit) Students must complete 6 hours of Arabic language beyond the Fulbright College language proficiency requirement (ARAB 2013). Courses approved by the MEST director and completed in a summer intensive Arabic program or study-abroad program in an Arabic speaking country may substitute for all or part of this requirement.

MEST Core Courses: To count for MEST credit, courses not on the following list must be approved by the student’s MEST major adviser and the MEST director. Individualized readings, directed research courses, or courses in a second Middle Eastern language such as biblical Hebrew or Aramaic may count as MEST core courses with the approval of the MEST major adviser and MEST director.
MEST Core Courses:
ANTH 3123 Anthropology of Religion
ANTH 3033 Egyptology
ANTH 4123 Ancient Middle East
ANTH 4256 Archeological Field Session
ANTH 4513 African Religions
ANTH 4533 Middle East Cultures
ANTH 4913 Topics in the Middle East
ARAB 4213 Intro. to Arab Culture
GEOG 2003 World Regional Geography
GEOG 4033 Geography of the Middle East
GEOG 410V Special Problems in Geography: Middle East/North Africa
HIST 3033 Islamic Civilization
HIST 3043 History of the Modern Middle East
HIST 3473 Palestine and Israel in Modern Times
HIST 3923H Honors Colloquium (approved selected topics)
HIST 4353 Middle East 600-1500
HIST 4373 Mongol and Mamluk 1250-1520
HIST 4393 The Ottoman Empire and Iran 1300-1722
HIST 4413 New Women in the Middle East
HIST 4433 Social and Cultural History of the Modern Middle East
HUMN 2213 Intro. to World Religions
HUMN 425V Colloquium (approved selected topics)
MEST 2003 Islam: History and Practice
MEST 2013 Gateways to the Middle East
MEST 4003 Middle East Studies Colloquium
MEST 4003H Honors Middle East Studies Colloquium
PLSC 3523 Politics of the Middle East
PLSC 3813 International Law
PLSC 4583 Political Economy of the Middle East
PLSC 4593 Islam and Politics
PLSC 4843 The Middle East in World Affairs
WLIT 3983/603 Special Studies: (approved selected topics)

Requirements for a Minor in Middle East Studies:
Total Hours Required: (18 semester hours)
Students must complete MEST 2013 Gateways to the Middle East (3 hours), MEST 4003 MEST Colloquium, 6 hours of Arabic beyond the Fulbright College language proficiency requirement (ARAB 2013), and a minimum of 6 additional hours of MEST core courses.
Gateways to the Middle East: (3 hrs) Students must complete three hours in the MEST 2013 Gateways to the Middle East.
Middle East Studies Colloquium: (3 hours) Students must complete three hours in the Middle East Studies Colloquium (MEST 4003)
Arabic Requirement: (6 hours of MEST credit) Students must complete 6 hours of Arabic language beyond the Fulbright College language proficiency requirement (ARAB 2013). Courses approved by the MEST director and completed in a summer intensive Arabic program or study-abroad program in an Arabic speaking country may substitute for all or part of this requirement.
MEST Core Courses: (6 hours) Students must complete an additional 6 hours of MEST core courses supervised by faculty participating in the program. Students choosing to take individualized reading or directed research courses as a part of the minor must obtain the approval of the MEST director and their major adviser.

Requirements for Honors in MEST: The Honors Program in Middle East Studies gives junior and senior students of high ability the opportunity to enroll in enriched courses and conduct independent research culminating in an honors thesis. In addition to satisfying the general Fulbright College requirements for graduation and the basic eligibility requirements for honors as established by the Honors Council, candidates for honors in Middle East Studies must complete 12 hours of honors credit in partial satisfaction of requirements for the co-major. One to 6 of these hours may be thesis hours (MEST 399VH).

The preferred method for satisfying the remaining hours is to enroll in the colloquium at least once for honors credit (MEST 4003H) and to take relevant honors colloquia or graduate courses (with permission) in one of the departments contributing to this interdisciplinary area study. The thesis committee shall include a representative from the major discipline (in the case of multiple majors, from the discipline contributing most significantly to the topic). Successful completion of these requirements will be recognized by the award of the distinction “Middle East Studies Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in exceptional cases and are based upon the whole of the candidate’s program of honors studies.

MUSIC (MUSC)

Stephen Gates
Chair of the Department
201 Music Building
479-575-4701
http://www.uark.edu/depts/uamusic/
music@uark.edu
• Professors Cencel, Detels, Gates, Greeson, Mains, Markham, Mueller, Pratchard, Ramey, Sloan, Thompson, Warren, Wolpert
• Professors Emeriti Ballenger, Bright, Brothers, Groh, Jackson, Janzen, Umiker, Widdler, Worthley
• Associate Professors Jones, J. Margulis, Misenhelter, Yoes
• Associate Professors Emeriti Colber, Johnson, Nastasi
• Assistant Professors Choltitchanca, Hickson, Kahng, Langager, E. Margulis, Pierce, Rulli, Russell
• Visiting Assistant Professors Delaplain, Gunter, Lacy, Norris, Pratchard

The music department strives to enrich and inspire the human mind and spirit through the pursuit of excellence in creative activity, research, teaching, and service. The Department of Music is an accredited institutional member of the National Association of Schools of Music. The requirements for entrance and for graduation as set forth in this catalog are in accordance with the published regulations of that Association.

Degrees in Music
Two baccalaureate degrees in music are available: the Bachelor of Music (see page 128 for general education requirements, see below for more detailed specific requirements), and the Bachelor of Arts with a Major in Music (see page 126 for general education requirements, see below for more detailed specific requirements). To achieve junior standing in the curriculum leading to the Bachelor of Arts degree with a major in music and the Bachelor of Music degree, the student must have completed 56 hours and must have maintained a cumulative grade average of “C” in all music courses, with the exception of ensemble, by the end of the fourth semester. The student must also have earned a grade average of not less than “B” in the major applied field of study during the sophomore year. This standing is prerequisite to all 3000-level courses and above in music.

All music majors are required to enroll in an ensemble in each semester of residence appropriate to their major area and with consent of their adviser.

All music majors, with exceptions noted below, are required to enroll in MUEN 3411 Concert Choir during the first semester of their freshman
year, or in their first semester of residence for transfer students, who have not met this requirement. Exceptions to the requirement would include all students pursuing the Bachelor of Music (B.M.) degree for whom voice or piano is the major applied area.

**Piano Proficiency Requirement:** Students pursuing a Bachelor of Music degree must pass a piano proficiency examination upon entering the University of Arkansas or must register in piano class until this requirement is met.

On the basis of prior study in music, a student may be advised to omit one or more of the semesters of Aural Perception (MUTH 1621, MUTH 1631, MUTH 2621, MUTH 2631). Students will receive college credit for the omitted aural perception courses when they have validated their higher placement by passing the course in which they are placed with a grade of "B" or better.

**Writing Requirement:** Students can meet the Fulbright College writing requirement by submission of a satisfactory term paper for MUHS 4253, MUED 4273, MUED 4283, or MUED 4293.

**Requirements for a Major in Music leading to a Bachelor of Music Degree:**

**MUTH 1603, MUTH 1621, MUTH 1631, MUTH 2603, MUTH 2621, MUTH 2631, MUTH 3603 (except for music education majors), MUTH 3613, MUTH 4703 (except for music education majors), MUHS 3703, MUHS 3713, MUHS 4253 (except for music education majors), MUPD 3801, MUAC 2111, MUAC 2121 plus the following specific requirements by major area of emphasis. All students must complete four semesters of MUAP 110V with a grade of "A" or "B" before enrolling in MUAP 310V.

**Piano Performance Major:** Applied Piano 28 hours, of which 16 must be at the upper level (including MUAP 3201, 4201); Secondary MUAP or MUAC (2); MUHS 4803, MUHS 4813; MUTH 4322; MUPD 3811 or MUPD 3861; MUED 4273; electives (may include MUTH 1003 and any MUEN): 8.

**Voice Performance Major:** Applied Voice 24 hours, of which 12 must be at the upper level (including MUAP 3201, 4201); Secondary MUAP or MUAC (4); MUAC 1121, MUAC 1141, MUAC 1151, MUPD 3861, MUHS 4763, MUHS 4773; Ensemble: 8 hours (see adviser for ensemble selection); electives (may be non-music): 10.

**String Performance Major:** Applied 28 hours, of which 16 must be at the upper level (including MUAP 3201, 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUEN 3431 (8), MUEN 3501 (4); electives (may be non-music): 10.

**Woodwind, Brass, or Percussion Performance Major:** Applied 24 hours, of which 12 must be at the upper level (including MUAP 3201, 4201); Secondary MUAP or MUAC (4); MUTH 4612, MUHS 4733. Large Ensembles (8); Small Ensembles (4); electives (may be non-music): 11.

**Guitar Performance Major:** Applied 28 hours, of which 16 must be at the upper level (including MUAP 3201, 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUTH 4612; Ensemble: 8 hours (see adviser for ensemble selections); electives (may be non-music): 11.

**Theory or Composition Major:** MUAP 110V/310V (major-level applied 16 hours), MUAC 1221, MUAC 1231, MUAC 2221, MUAC 2231 (unless waived), MUPD 3811 or MUPD 3861, MUTH 4612, Ensemble: 8 hours (see adviser for ensemble selections). Students majoring in Theory or Composition must receive a grade of "B" or higher in MUTH 2603, MUTH 3603, and MUTH 3613. Composition: MUTH 164V, MUTH 364V (14), MUAP 4201; electives (may be non-music): Theory: MUTH 164V, MUTH 364V (6), MUTH 498V (3); electives (may be non-music): demonstration of piano skills appropriate for a composer or theorist.

**Music Education:** All emphasis; in addition to requirements for the Bachelor of Music degree listed above) MUTH 4612; 14 MUAP/MUAC (applied, including recital – see below); MUAC 1221, MUAC 1231, MUAC 2221, MUAC 2231 (except for piano majors – see below); 8 MUEN (see below); MUED 1202, MUED 3021, MUED 3833 and MUED 4112; plus the following specific requirements by emphasis.

Students who wish to apply for admission to the internship program in music education must complete the following stages.

**Stage I: Complete an Evaluation for Internship**

Students must meet the following criteria to be cleared for the internship:

1. Declare the major in music education in the Fulbright Advising Center, 518 Old Main.
2. Successful completion of the PRAXIS I test by meeting or exceeding the Arkansas Department of Education cut-off scores. This test should be taken after the student has completed 30 credit hours and upon completion of ENGL 1013, ENGL 1023, and MATH 1203.
3. Obtain a "C" or better in the following pre-education core courses: CIED 3023, CIED 3033.
4. Obtain a "C" or better in MUED 2012, MUED 3021, and MUED 3833.
5. Satisfactory completion of the Evaluation for Internship form. The evaluation form must be completed by October 1 prior to doing a fall internship or March 1 prior to doing a spring internship. The completed form must be returned to the Coordinator of Teacher Education, 8 Peabody Hall, no later than the stated deadline.
6. Complete the B.M. degree with a cumulative GPA of 2.50 or higher. The degree must be posted to your University of Arkansas transcript at the Registrar’s Office prior to internship.
7. Obtain departmental clearance for internship based on successful completion of portfolios, evaluation for internship, GPA requirements, course work requirements, selected written recommendations, an interview, and/or other requirements specified by your program.

All requirements in Stage I must be met to be cleared for the internship. Please contact the Coordinator of Teacher Education, 8 Peabody Hall, College of Education and Health Professions for more information.

**Stage II: Internship**

1. Complete the one-semester internship at an approved site in Washington or Benton counties.
2. Complete PRAXIS II requirements. See your adviser for completion dates.

NOTE: Students should always consult the Coordinator of Teacher Education for any licensure requirement changes. Students will not be licensed to teach in Arkansas until they have met all requirements for licensure as set forth by the Arkansas Department of Education.

Usually licensure in another state is facilitated by qualifying for a license in Arkansas. An application in another state must be made on the application form of that state, which can be obtained by request from the State Teacher Licensure office in the capital city. An official transcript should accompany the application. In many instances the applications are referred to the Coordinator of Teacher Education and Health Professions for more information.
Music Education, Choral/Voice: 11 MUAP to consist of 5 MUAP 110V, 5 MUAP 310V, MUAP 3201, MUAC 1121, MUAC 1141, MUAC 1151, 8 MUEN selected from MUEN 3411, MUEN 3451, 3 MUAC to include MUAC 1371, 1 of MUAC 1301 or MUAC 1311, 1 of MUAC 1331, MUAC 1341, MUAC 1351, MUAC 1361, or MUAC 2141, 2 MUAP 1001 Piano, 1 MUAP/MUAC by advisement, MUPD 3861, MUED 4283, electives (may include MUTH 1003 and any MUEN): 8.

Music Education, Choral/Piano: 14 MUAP to consist of 8 MUAP 110V, 5 MUAP 310V, MUAP 3201, MUAC 1121, MUAC 1141, MUAC 1151, 8 MUEN selected from MUEN 3411, MUEN 3451, 3 MUAC to include MUAC 1371, 1 of MUAC 1301 or MUAC 1311, 1 of MUAC 1331, MUAC 1341, MUAC 1351, MUAC 1361, or MUAC 2141, 4 MUAP 1001/3001 Voice, MUPD 3861, MUED 4283, electives (may include MUTH 1003 and any MUEN): 8.

Requirements for a Major in Music leading to a Bachelor of Music Degree with Elective Studies in Business: MUTH 1603, MUTH 1621, MUTH 1631, MUTH 2603, MUTH 2621, MUTH 2631, MUTH 3613.; MUHS 3703, MUHS 3713, MUHS 4253; MUPD 3801; MUAC 2111, MUAC 2121, MAAC 1221, MAAC 1231, MAAC 2221, MAAC 2231; 14 MUAP to consist of 8 MUAP 110V, 5 MUAP 310V, MUAP 3201; 7 MUEN to be selected with the consent of the student's adviser; plus the student must declare one concentration for a Business Administration Minor for Non-Business Students and fulfill all requirements for that declared minor.

Requirements for a Major in Music leading to a Bachelor of Arts Degree: This program is for undergraduates who wish to major in music as part of a liberal arts program. A minimum of 42 semester hours in music to include: MUTH 1603, MUTH 1621, MUTH 1631, MUTH 2603, MUTH 2621, MUTH 2631, MUTH 3603, MUTH 3613, MUHS 3703, MUHS 3713, MUHS 4253; MUPD 3801; MUAC 2111, MUAC 2121, MAAC 1221, MAAC 1231, MAAC 2221, MAAC 2231; 14 MUAP to consist of 8 MUAP 110V, 5 MUAP 310V, MUAP 3201; 7 MUEN to be selected with the consent of the student's adviser; plus the student must declare one concentration for a Bachelor of Arts degree with a combination of music-drama major may be obtained. See the chairman of the music department for the specific courses required for the degree.

Requirements for Departmental Honors in Music: The Departmental Honors Program in Music provides upper-division undergraduate students an opportunity to participate formally in scholarly, creative, or performance music activities. Honors candidates carry out independent study, research and performance under the guidance of the music faculty and participate in special honors classes and seminars. They must take 12 hours (which may include 6 hours of thesis) in Honors Studies.

Each honors student will be required to select an honors committee. The committee will comprise the honors thesis adviser (a Music Department faculty member and major teacher in the area of the honors project), a second faculty member from the Music Department chosen by the student, a member from outside the music department chosen by the student, and a member of the Honors Council appointed by the Honors College. This committee is responsible for hearing and seeing the work of the student in the area of the honors project and will administer the oral examination to the candidate at the end of the last semester of the student's work. The committee then recommends to the Honors Council whether or not the student receives honors in music. Outstanding student achievement will be recognized by awarding the distinction “Music Scholar Cum Laude” at graduation. The award of higher degree distinctions is recommended only in truly exceptional cases and is based upon the whole of the candidate's program of honors studies.

The student may elect to do the honors project in one of six areas: performance, music history and literature, theory, composition, music education, or ethnomusicology. Honors work may be done in an area other than the student's major area that is, a student majoring in voice performance may elect to do honors work in music history, theory, or composition, etc.

If a student wishes to devise his or her own honors project in consultation with a supervising professor and with the permission of the department chair, he or she may be granted honors. If a student wishes to combine work in more than one field and if the committee approves, he or she may be granted honors in more than one area, although the designation on the diploma will read "in music."

The requirements for work in each area are as follows:

1. Performance
   a. 2 semesters of MUAP 310VH, with concurrent registration in MUAP 3201H and MUAP 4201H
   b. Other music department honors courses are recommended, see honors adviser. (A program file representing the student's range of performance activities during the junior and senior years will be maintained for the department file and for the Honors Council. Compact discs of the junior and senior recitals will be filed with the Honors Office.)

2. History and Literature
   a. Junior year: MUHS 5973 Seminar in Bibliography and Methods of Research
   b. Senior year: MUSC 490VH Honors Essay

3. Theory
   a. Junior year: MUHS 5973 Seminar in Bibliography and Methods of Research
   b. Senior year: MUSC 490VH Honors Essay

4. Composition
   a. At least six hours of MUTH 364VH Honors Composition II
   b. A full program of original compositions or equivalent.

5. Music Education
   a. Junior year: MUED 5513 Seminar: Resources in Music Education
   b. Senior year: MUSC 490VH Honors Essay

6. Ethnomusicology
   a. Junior year: MUHS 5973 Seminar in Bibliography and Methods of Research
   b. Senior year: MUSC 490VH Honors Essay

Sample Music B.A. Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program, and should consult their music adviser for an eight-semester plan that is specific to their vocal, instrumental or theoretical emphasis area in music. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Credit hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a required course.

| Fall Semester Year 1 |  
|----------------------|---|
| 3 ENGL 1013 Composition I |  
| 3-4 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554 |  
| 3 MUTH 1003 Basic Musicanship (if required) or Core from areas a, b, c, d, e, or e (as needed)  |
| 1 MUAC 1221 Piano for Music Majors I (full only)  |
| 2 MUAP 110V Applied Voice/Instrument (usually 2 hours)  |
| 1 †MUEN Music Ensemble (see adviser)  |
| 3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013  |

16-17 Semester Hours

| Spring Semester Year 1 |  
|-----------------------|---|
| 3 ENGL 1023 Composition II |  

**J. William Fulbright College of Arts and Sciences**

**Spring Semester Year 4**
1. MATH 2043, 2053, 2183 or Core from areas a, b, c, d or e (as needed)
2. MATH 1621 Aural Perception I
3. MUAC 1231 Piano for Music Majors II (spring only)
4. MUAP 110V Applied Voice/Instrument (usually 2 hours)
5. †MUEN 3411 Concert Choir (required for freshmen)
6. MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)

17 Semester Hours

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Core Courses</th>
<th>General Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>3 Core from area a, b, c, d or e (as needed)</td>
<td>3 †Upper-Level Elective from Fulbright College (if needed) or General Elective</td>
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### Spring Semester Year 3

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<th>General Electives</th>
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<tbody>
<tr>
<td>15</td>
<td>3 †MATH 2603 Music Theory II</td>
<td>3 †MUTH 3603 Music Theory III</td>
</tr>
<tr>
<td>14</td>
<td>†1MUHT 2621 Aural Perception I</td>
<td>1 MUAP 110V Applied Voice/Instrument</td>
</tr>
<tr>
<td></td>
<td>1 †MUHS 3703 History of Music to 1800</td>
<td>3 †Core from area g (if needed) or †Advanced Level Elective</td>
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### Fall Semester Year 3

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<th>Semester Hours</th>
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<th>General Electives</th>
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<tr>
<td>16</td>
<td>3 ††MUTH 3613 Music Theory IV</td>
<td>1 †MUAC 2111/2121 Music Technology I/II</td>
</tr>
<tr>
<td></td>
<td>††MUHT 2631 Aural Perception IV</td>
<td>2 MUAP 1102 Applied Voice/Instrument</td>
</tr>
<tr>
<td></td>
<td>††MUHS 3713 History of Music from 1800</td>
<td>1 †MUEN Music Ensemble (see adviser)</td>
</tr>
<tr>
<td></td>
<td>†Core from area g (if needed) or †Advanced Level Elective</td>
<td>3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
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### Spring Semester Year 3

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<th>General Electives</th>
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<tr>
<td>16</td>
<td>3 ††MUHS 3713 History of Music from 1800</td>
<td>1 †Core from area f (as needed)</td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>4 Core from area f (as needed)</td>
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### Fall Semester Year 4

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<th>Core Courses</th>
<th>General Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>3 ††MUHS 4253 Special Topics in Music History</td>
<td>1 †MUEN Music Ensemble (see adviser)</td>
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<td>††Upper-Level Elective from Fulbright College</td>
<td>3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
</tr>
<tr>
<td></td>
<td>Core from area f (as needed)</td>
<td>1 One course from Music Activity Group (see below)</td>
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### Spring Semester Year 4

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<tr>
<th>Semester Hours</th>
<th>Core Courses</th>
<th>General Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>1 One course from Music Activity Group (see below)</td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>2 MUAP 1102 Applied Voice/Instrument</td>
</tr>
<tr>
<td></td>
<td>†Upper-Level Elective from Fulbright College</td>
<td>1 MUED 2012 Introduction to Music Education</td>
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### Fall Semester Year 2

<table>
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<tr>
<th>Semester Hours</th>
<th>Core Courses</th>
<th>General Electives</th>
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</thead>
<tbody>
<tr>
<td>15</td>
<td>3 ††MUTH 3613 Music Theory IV (MUTH 1603)</td>
<td>1 †MATH 2043, 2053, 2183 or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>MUTH 1631 Aural Perception II</td>
<td>3 MATH 1203 College Algebra (If required, or higher-level math)</td>
</tr>
<tr>
<td></td>
<td>† MUAP 2111/2121 Music Technology I/II</td>
<td>3 PSYC 2003 General Psychology</td>
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### Spring Semester Year 2

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<th>Core Courses</th>
<th>General Electives</th>
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<tr>
<td>15</td>
<td>3 †MATH 2603 Music Theory II (MUTH 1603)</td>
<td>1 MUAC 1331, 1341, 1351, 1361, 1371, 2141, and either 1301 or 1311.</td>
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<td></td>
<td>MUTH 1631 Aural Perception II</td>
<td>1 MUAP 2111/2121 Music Technology I/II</td>
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<td>†MUAP 2111/2121 Music Technology I/II</td>
<td>3 MUTH 1603 Music Theory I (spring only)</td>
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<td>†MUAC 2221 Piano for Music Majors III (fall only)</td>
<td>3 MUAP 1102 Applied Voice/Instrument</td>
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<td>†MUAC 2221 Piano for Music Majors III (fall only)</td>
<td>1 †MUEN Music Ensemble (see adviser)</td>
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<td>MUAC 1231 Piano for Music Majors II (spring only)</td>
<td>3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
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<td></td>
<td>MUAP 1102 Applied Voice/Instrument</td>
<td>1 One course from Music Activity Group (see below)</td>
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<td></td>
<td>†MUEN 3441 Marching Band</td>
<td>2 MUAP 1102 Applied Voice/Instrument</td>
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<tr>
<td></td>
<td>MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
<td>1 MUEN 3411 Concert Choir</td>
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### Fall Semester Year 1

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<th>Semester Hours</th>
<th>Core Courses</th>
<th>General Electives</th>
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<tr>
<td>15</td>
<td>3 †ENGL 1013 Composition I</td>
<td>1 MUAC 1231 Piano for Music Majors I (fall only)</td>
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<tr>
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<td>3 MUTH 1003 Basic Musicianship (if required) or Core from areas a, b, c, d or e (as needed)</td>
<td>1 MUAP 1102 Applied Voice/Instrument</td>
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<td>1 MUAP 1102 Applied Voice/Instrument</td>
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<td>1 MUAP 1102 Applied Voice/Instrument</td>
<td>3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
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### Spring Semester Year 1

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<th>Semester Hours</th>
<th>Core Courses</th>
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<td>3 MUTH 1603 Music Theory I (spring only)</td>
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<td>1 MUTH 1621 Aural Perception I</td>
<td>3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
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<td>1 †MUEN 3441 Marching Band</td>
<td>2 MUAP 1102 Applied Voice/Instrument</td>
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<td>3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)</td>
<td>1 MUEN 3411 Concert Choir</td>
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### Fall Semester Year 2

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<td>3 †MUHS 3713 History of Music from 1800</td>
<td>1 †Core from area g (if needed) or †Advanced Level Elective</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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### Spring Semester Year 2

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<td>†Upper-Level Elective from Fulbright College</td>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>†Upper-Level Elective from Fulbright College (if needed) or General Elective</td>
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124 Total Hours

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Sample Music B.M. Eight-Semester Degree Program for Music Education

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program, and should consult their music adviser for an eight-semester plan that is specific to their vocal, instrumental or theoretical emphasis area in music. The following eight-semester plan refers to additional B.M. Core Requirement areas (areas a, b, c, d, e, and f) found on page 202 at the end of this chapter.

Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

For this sample, the Music Activity Course Group requires seven 1-hour classes: MUAC 1331, 1341, 1351, 1361, 1371, 2141, and either 1301 or 1311.
Students in the Voice Performance major are required to take 9 hours of core from areas a, b, or c (as needed). Students wishing to follow the eight-semester degree plan should see page 202 at the end of this chapter.

### Sample Music B.M. Eight-Semester Degree Program for Music Performance

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program, and should consult their music adviser for an eight-semester plan that is specific to their vocal, instrumental or theoretical emphasis area in music. The following eight-semester plan refers to additional B.M. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 202 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>†‡MUEN Music Ensemble (see adviser)</td>
<td>1</td>
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<td>†‡MUPD 3801 Conducting I</td>
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<tr>
<td>†CIED 3023 (PSYC 2003) or CIED 3033 or MUED 3833</td>
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### Fall Semester Year 2

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<tr>
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<tr>
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### Spring Semester Year 2

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### Spring Semester Year 3

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### Spring Semester Year 5

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### Spring Semester Year 6

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### Spring Semester Year 7

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### Spring Semester Year 8

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### Note

Licensure for teaching in the state of Arkansas requires one additional semester of internship beyond and after the completion of degree requirements. The courses required during the semester of internship are MUED 4301 Seminar for Professional Entry into Music Education, MUED 451V (4 or 8 hours) Student Teaching: Elementary Music, and MUED 452V (4 or 8 hours) Student Teaching: Secondary Music.

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter
†‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter

J. William Fulbright College of Arts and Sciences
Requirements for Departmental Honors in Philosophy: The purpose of the honors program is to provide the honors candidate with the opportunity of achieving greater maturity in dealing with philosophical ideas through independent study. The candidate's plan of study will include the reading of significant philosophical works. Normally a candidate will complete a total of three to six hours of independent readings in philosophy during his or her junior and senior years. In addition, it is recommended that the candidate register for honors courses and colloquia. One colloquium is required.

The candidate will be expected to take 12 hours (which may include 6 hours of thesis) in Honors Studies and to write an essay during his or her senior year and give a satisfactory account of the honors readings and senior essay in an oral examination. Successful completion of the requirements will be recognized by the award of the distinction “Philosophy Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies.

Requirements for a Combined Major in Philosophy and African-American Studies: 36 semester hours, consisting of 18 hours in philosophy and 18 hours in African-American studies. The philosophy requirement is: 18 semester hours in philosophy to include either 12 hours over 3000 and PHIL 2203 or PHIL 4253, or 15 hours over 3000. The hours over the 3000-level must include at least three hours of value theory to be chosen from PHIL 4113, PHIL 4123, PHIL 4133, or PHIL 4143, and at least six hours in the history of philosophy (PHIL 4003, PHIL 4013, PHIL 4023, PHIL 4033, PHIL 4043, PHIL 4063, PHIL 4073, PHIL 4083) including PHIL 4003 or PHIL 4033. See African-American studies on page 128.

Requirements for a Minor in Music: A minimum of 18 semester hours in music courses, of which at least nine hours must be selected from MUTH, MUHS, and/or MLIT courses, the specific courses to be determined by the student in consultation with a music faculty adviser; the adviser to be appointed by the music faculty on the basis of each student’s particular interests. The student must notify the Department of Music of his/her intent to minor. For requirements for advanced degrees in music, see the Graduate School Catalog.

See pages 376-379 for music (MLIT through MUTH) courses.
Requirements for a Minor in Philosophy: 18 semester hours in philosophy to include PHIL 2203 or PHIL 4253, and either PHIL 4003 or PHIL 4033. A student may earn either a minor or a combined major in philosophy but not both. A student must notify the department of his or her intent to minor.

For requirements for advanced degrees in philosophy, see the Graduate School Catalog.

SEE PAGE 382 FOR PHILOSOPHY (PHIL) COURSES

### Philosophy Area Group 1:
Students may take any additional upper level course in philosophy, but it is recommended that philosophy majors take at least two of the following:

- PHIL 4113 Social and Political Philosophy
- PHIL 4123 Classical Ethical Theory
- PHIL 4133 Contemporary Ethical Theory
- PHIL 4143 Philosophy of Law
- PHIL 4203 Theory of Knowledge
- PHIL 4213 Philosophy of Science
- PHIL 4303 Philosophy of Religion
- PHIL 4403 Philosophy of Art
- PHIL 4423 Philosophy of Mind
- PHIL 4603 Metaphysics

### History of Philosophy Group 2 (does NOT include Ancient Greek Philosophy and Modern Philosophy which are both required):

- PHIL 4013 Platonism and the Rise of Christian Theology
- PHIL 4063 Twentieth Century Continental Philosophy
- PHIL 4023 Medieval Philosophy
- PHIL 4073 History of Analytic Philosophy
- PHIL 4043 Nineteenth Century Continental Philosophy
- PHIL 4083 Existentialism

### Requirement for a Major in Philosophy:
The student must present a minimum of 40 semester hours in philosophy including PHYS 2054, PHYS 2074, PHYS 2094, PHYS 3414, PHYS 3614, PHYS 4073, PHYS 4991 and courses in one of five concentrations: Professional, Optics, Electronics, Computational, Biophysics.

### Professional:
PHYS 3113, PHYS 4333, and 10 semester hours numbered 3000 and above in physics or astronomy.

### Optics:
PHYS 3544, any 1 course selected from PHYS 4734, PHYS 4754, or PHYS 4774, and 8 semester hours numbered 3000 and above in physics or astronomy.

### Electronics:
PHYS 220V (up to 2 hours), PHYS 320V (2 or more hours), PHYS 4333, and 6 semester hours numbered 3000 and above in physics or astronomy.

### Computational:
PHYS 3113 and 13 semester hours including courses numbered 3000 and above in physics, astronomy, advanced computer science, or mathematics chosen with the advisor's permission.

### Biophysics:
PHYS 3113 and 13 semester hours including courses numbered 3000 and above in physics, astronomy, biology, and chemistry chosen with the advisor's permission.

For all five of the possible concentrations the following mathematics courses are required:

- MATH 2554, MATH 2564, MATH 2574, MATH 3404, and MATH 3423, CSCE 4513, CENG 4423, or MEEG 2703 can be substituted for MATH 3423 with the advisor's approval. In addition, CHEM 1103/1101L and CHEM 1123/1121L, or an approved 8 hours of laboratory-based courses in CSCE (CSCE 1113/1111L and CSCE 1123/1121L) or CENG (CENG 1113/1111L and CENG 1123/1121L) or any approved 9 hours of courses in CSCE (CSCE 1113, CSCE 1123, CSCE 2143, CSCE 3313) or CENG (CENG 1113, CENG 1123, CENG 2143, CENG 3313) are required. Majors must propose participation in a research experience project no later than the end of their junior year of study. A written report of the results must be submitted during Senior Seminar (PHYS 4991).

### Physics B.S. Eight-Semester Degree Program:
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program as well as page 126 of this chapter for College requirements. Physics offers five concentrations: biophysics, computational, electronics, optics and professional. The eight-semester plan for each concentration is listed below.

The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

Well prepared students may skip BIOL 1543/1541L, and go immediately into the biology core courses. Students should consult their advisers.

---

### Physics (PHYS)

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<th>Title</th>
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<th>Phone</th>
<th>Office</th>
</tr>
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<tbody>
<tr>
<td>Chair of the Department</td>
<td>Surendra P. Singh</td>
<td>479-575-2506</td>
<td>226 Physics Building</td>
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- **Distinguished Professors Salamo, Xiao**
- **Professors Bellaiche, Gea-Banacloche, Gupta, Harter, Lacy, Lieber, Pederson, Singh, Thibado, Vyas**
- **Research Professor Vickers**
- **Professors Emeriti Chan, Hobson, Hughes, Richardson, Zinke**
- **Associate Professors Fu, Oliver, G. Stewart**
- **Assistant Professors Chakhalian, Kennefick, Li, J. Stewart**
### Biophysics Concentration

Well prepared students may skip BIOL 1543/1541L, and go immediately into the biology core courses.

#### Fall Semester Year 1
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<td>14</td>
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#### Spring Semester Year 3
<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>†‡ PHYS 3414 Electromagnetic Theory</td>
<td>4</td>
</tr>
<tr>
<td>†CHEM 3613/3611L Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from area f (if needed) or General Electives</td>
<td>3</td>
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<tr>
<td><strong>Total Semester Hours</strong></td>
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#### Fall Semester Year 4
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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>†‡ PHYS 4073 Introduction to Quantum Mechanics</td>
<td>3</td>
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<tr>
<td>†BIOL 4003 Laboratory Techniques in Microbiology*</td>
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</tr>
<tr>
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<td>3</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
</tr>
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<td>3</td>
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<tr>
<td><strong>Total Semester Hours</strong></td>
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#### Spring Semester Year 4
<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>†‡ BIOI 333 General Genetics</td>
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<tr>
<td>†‡ BIOI 3024 Evolutionary Biology</td>
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<td>†‡ PHYS 4991 Senior Seminar</td>
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<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c or e (as needed)</td>
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</tr>
<tr>
<td><strong>Total Semester Hours</strong></td>
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</tbody>
</table>

**Total Hours**: 124

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* Or another chemistry, biology, astronomy, or physics elective from PHYS/ASTR Group A (below).
† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fullbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

#### Computational Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>†MATH 2554 Calculus I</td>
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<tr>
<td>Core from areas a, b, c or e</td>
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</tr>
<tr>
<td>†PHYS 2054 University Physics I</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>†MATH 2564 Calculus II</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Core from areas a, b, c or e</td>
<td>3</td>
</tr>
<tr>
<td>†PHYS 2074 University Physics II</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>†PHYS 2094 University Physics III</td>
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</tr>
<tr>
<td>†MATH 2574 Calculus III</td>
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</tr>
<tr>
<td>Core from areas a, b, c or e</td>
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</tr>
<tr>
<td>†CSCE 1113/1111L Programming Foundations I</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>†PHYS 3614 Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>Core from areas a, b, c or e</td>
<td>3</td>
</tr>
<tr>
<td>†MATH 3404 Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>†CSCE 1123/1121L Programming Foundations II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>†‡ PHYS 3113 Analytical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>†MATH 3423 Advanced Applied Math I</td>
<td>3</td>
</tr>
<tr>
<td>Core from area f (if needed) or Advanced Level Elective</td>
<td>3</td>
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<tr>
<td>Core from areas a, b, c or e</td>
<td>3</td>
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<tr>
<td>Core from areas a, b, c or e</td>
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<tr>
<td><strong>Total Hours</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>†‡ PHYS 3414 Electromagnetic Theory</td>
<td>4</td>
</tr>
<tr>
<td>†CSCE 2143 Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>Core from areas a, b, c or e (as needed)</td>
<td>3</td>
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<tr>
<td>Core from areas a, b, c or e (as needed)</td>
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<tr>
<td><strong>Total Hours</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>†‡ PHYS 3333 Algorithms</td>
<td>6</td>
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<tr>
<td>Core from areas a, b, c or e</td>
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</tr>
<tr>
<td>†‡ PHYS/ASTR Group A or advanced level electives*</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>16</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>†‡ CSCE 3313 Algorithms</td>
<td>6</td>
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<tr>
<td>Core from areas a, b, c or e</td>
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<tr>
<td>†‡ PHYS/ASTR Group A or advanced level electives*</td>
<td>3</td>
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<tr>
<td><strong>Total Hours</strong></td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>†‡ PHYS/ASTR Group A or advanced level electives*</td>
<td>4</td>
</tr>
<tr>
<td>†‡ PHYS 4991 Senior Seminar</td>
<td>1</td>
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<tr>
<td>Core from areas a, b, c or e</td>
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</tr>
<tr>
<td>Advanced level electives</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>16</td>
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</table>

| **Total Hours**             | 124   |

* Nine hours of upper division computer science or mathematics courses can count toward the physics major.
† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fullbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
### Electronics Concentration

#### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 4 †MATH 2554 Calculus I
- 3 Core from areas a, b, c, or e (as needed)
- 4 †PHYS 2054 University Physics I
- 1 PHYS 220V Electronics I*
- **15 Total Hours**

#### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 4 †MATH 2564 Calculus II
- 3 Core from areas a, b, c, or e (as needed)
- 1 PHYS 220V Electronics I*
- 4 †PHYS 2074 University Physics II
- **15 Total Hours**

#### Fall Semester Year 2
- 4 †PHYS 2094 University Physics III
- 3 Core from areas a, b, c, or e (as needed)
- 4 †MATH 2574 Calculus III
- 4 CHEM 1103/1101L University Chemistry I and Lab
- 1 †PHYS 320V Electronics II*
- **16 Total Hours**

#### Spring Semester Year 2
- 4 †PHYS 3614 Modern Physics
- 3 Core from areas a, b, c, or e (as needed)
- 4 †MATH 3404 Differential Equations
- 4 CHEM 1123/1121L University Chemistry II and Lab
- 1 †PHYS 320V Electronics II*
- **16 Total Hours**

#### Fall Semester Year 3
- 3 †MATH 3423 Advanced Applied Math I
- 3 Core from areas a, b, c, or e (as needed)
- 3 Core from areas a, b, c, or e (as needed)
- 3 Core from areas a, b, c, or e (as needed)
- **15 Total Hours**

#### Spring Semester Year 3
- 4 †PHYS 3414 Electromagnetic Theory
- 3 †PHYS 4333 Thermal Physics
- 3 Core from areas a, b, c, or e (as needed)
- 3 †Core from area f (if needed) or General Elective
- 3 General Elective or PHYS/ASTR Group A
- **16 Total Hours**

#### Fall Semester Year 4
- 3 †PHYS 4073 Introduction to Quantum Mechanics
- 2-3 †PHYS 320V Electronics III or other †PHYS/ASTR Group A
- 3 General Elective or †PHYS/ASTR Group A
- 3 Core from areas a, b, c, or e (as needed)
- 3 Core from areas a, b, c, or e (as needed)
- **14-15 Total Hours**

#### Spring Semester Year 4
- 3 †PHYS 4715 Introduction to Solid State Physics
- 3 †PHYS/ASTR Group A (as needed) or General Electives
- 1 †PHYS 4991 Senior Seminar
- 9 General Electives
- **16 Semester Hours**
- **124 Total Hours**

* Electronics I & II are unusual in that they can be taken for variable amounts of credit.
† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

### Optics Concentration

#### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 4 †MATH 2554 Calculus I
- 3 Core from areas a, b, c, or e (as needed)
- 4 †PHYS 2054 University Physics I
- 1 PHYS 220V Electronics I*
- **15 Semester Hours**

#### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 4 †MATH 2564 Calculus II
- 3 Core from areas a, b, c, or e (as needed)
- 2 PHYS 220V/320V Electronics I/II*
- 4 †PHYS 2074 University Physics II
- **16 Semester Hours**

#### Fall Semester Year 2
- 4 †PHYS 2094 University Physics III
- 3 Core from areas a, b, c, or e (as needed)
- 4 CHEM 1103/1101L University Chemistry I and Lab
- 4 †MATH 2574 Calculus III
- 1 PHYS 320V Electronics II*
- 3 Core from areas a, b, c, or e (as needed)
- **16 Semester Hours**

#### Spring Semester Year 2
- 4 †PHYS 3614 Modern Physics
- 3 Core from areas a, b, c, or e (as needed)
- 4 †MATH 3404 Differential Equations
- 4 CHEM 1123/1121L University Chemistry II and Lab
- 1 †PHYS 320V Electronics II*
- **16 Total Hours**

#### Fall Semester Year 3
- 4 †PHYS/ASTR Group A
- 3 †MATH 3423 Advanced Applied Math I
- 4 †PHYS/ASTR Group A or General Elective
- 3 Core from areas a, b, c, or e (as needed)
- **14 Semester Hours**

#### Spring Semester Year 3
- 4 †PHYS 3414 Electromagnetic Theory
- 3 Core from areas a, b, c, or e (as needed)
- 3 Core from areas a, b, c, or e (as needed)
- †Core from area f (if needed) or General Elective
- 3 General Elective
- **16 Semester Hours**

#### Fall Semester Year 4
- 3 †PHYS 4073 Introduction to Quantum Mechanics
- 4 †PHYS 3544 Optics
- 3 Core from areas a, b, c, or e (as needed)
- 3 Core from areas a, b, c, or e (as needed)
- **16 Semester Hours**

#### Spring Semester Year 4
- 4 Core from areas a, b, c, or e (as needed)
- 7 General Electives
- 1 †PHYS 4991 Senior Seminar
- 4 †PHYS Optics Elective (4734, 4754, or 4774)
- **16 Semester Hours**
- **124 Total Hours**

* These are examples of elective courses in Physics. Electronics I & II are unusual in that they can be taken for variable amounts of credit.
† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
### Professional Concentration

#### Fall Semester Year 1
1. ENGL 1013 Composition I
2. MATH 2594 Calculus I
3. Core from areas a, b, c, or e (as needed)
4. PHYS 2054 University Physics I
5. PHYS 220V Electronics I*
6. **Total Hours:** 15

#### Spring Semester Year 1
1. ENGL 1023 Composition II
2. MATH 2564 Calculus II
3. Core from areas a, b, c, or e (as needed)
4. PHYS 220V Electronics I* (as needed)
5. PHYS 2074 University Physics II
6. **Total Hours:** 15

#### Fall Semester Year 2
1. PHYS 2094 University Physics III
2. Core from areas a, b, c, or e (as needed)
3. MATH 3404 Differential Equations
4. CHEM 1103 University Chem. I (if needed) or Core from areas a, b, c, or e (as needed)
5. PHYS 320V Electronics II*
6. **Total Hours:** 16

#### Spring Semester Year 2
1. PHYS 3614 Modern Physics
2. Core from areas a, b, c, or e (as needed)
3. MATH 3423 Advanced Applied Math I
4. CHEM 1123/1121L University Chemistry II and Lab
5. **Total Hours:** 15

#### Fall Semester Year 3
1. PHYS 3113 Analytical Mechanics
2. MATH 3423 Advanced Applied Math II
3. Core from area f (if needed) or Advanced Level Elective
4. Core from areas a, b, c, or e (as needed)
5. General Elective
6. **Total Hours:** 15

#### Spring Semester Year 3
1. PHYS 3414 Electromagnetic Theory
2. PHYS 4333 Thermal Physics
3. Core from areas a, b, c, or e (as needed)
4. Core from areas a, b, c, or e (as needed)
5. Core from area f (if needed) or General Elective
6. **Total Hours:** 16

#### Fall Semester Year 4
1. PHYS 4073 Introduction to Quantum Mechanics
2. PHYS/ASTR Group A
3. General Elective
4. Core from areas a, b, c, or e (as needed)
5. Core from areas a, b, c, or e (as needed)
6. **Total Hours:** 16

#### Spring Semester Year 4
1. PHYS/ASTR Group A
2. PHYS/ASTR Group A (as needed) or General Electives
3. PHYS 4994 Senior Seminar
4. Core from areas a, b, c, or e (as needed)
5. General Electives (to complete 124 hour rule)
6. **Total Hours:** 16

#### Semester Hours
1. **Total Hours:** 124

---

* These are examples of elective courses in Physics. Electronics I & II are unusual in that they can be taken for variable amounts of credit.

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter

‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

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### PHYS/ASTR Group A
- Variable hours required in consultation with adviser:
  - ASTR 3033 Solar System Astronomy
  - ASTR 3053 Stellar Systems
  - ASTR 4013 Astrophysics
  - PHYS 320V Electronics II
  - PHYS 306V Projects
  - PHYS 3544 Optics
  - PHYS 3923H Honors Colloquium
  - PHYS 399VH Independent Honors Study
  - PHYS 4213 Physics of Devices
  - PHYS 4621L Modern Physics Lab
  - PHYS 4713 Solid State Physics
  - PHYS 4734 Laser Physics
  - PHYS 4754 Non-linear Optics
  - PHYS 4774 Optical Properties
  - PHYS 4794 Lightwave Communications
  - PHYS 4803 Mathematical Physics
  - PHYS 498V Senior Thesis

### Requirements for a B.A. Degree with a Major in Physics:
This track is for students desiring a broader program in the arts, sciences, and social sciences while majoring in physics. This program is recommended for pre-medical, journalism, pre-business, pre-law and other students planning careers in fields for which a physics education would be beneficial. For B.A. students seeking teaching licensure, see the Teacher Licensure Requirements below. This program requires a total of 124 semester hours. The student must present 24 semester hours in physics or astronomy, including PHYS 2013/2011L, PHYS 2033/2031L, PHYS 3603/3601L, PHYS 4991, and 11 semester hours chosen from PHYS 220V and/or any physics or astronomy courses at the 3000 level or above. The student must also present MATH 1285 (or MATH 1203 and MATH 1213) and MATH 2554 (or MATH 2043) as well as two additional courses at the 2000 level or above in mathematics or statistics. An additional 9 semester hours at the 3000 level or above must be taken from a single special emphasis area chosen with the adviser’s approval. The special emphasis area may be chosen in any single degree-granting department at the University of Arkansas. For B.A. students seeking teacher licensure, the special emphasis area may involve courses from more than one degree-granting department at the University of Arkansas with the approval of their adviser.

### Physics B.A. Eight-Semester Degree Program
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program as well as page 126 of this chapter for College requirements. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

The Physics B.A. program includes requirements for a special emphasis area. In this case, journalism was used as an example. Courses in Boldface indicate courses recommended by the Department of Journalism as the journalism foundation needed for science reporting. It is recommended that the free electives be chosen in a second science, or in journalism.

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<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3</td>
<td>JOUR 1023 Media and Society* (required for journalism sequence) or General Elective</td>
</tr>
<tr>
<td>3</td>
<td>General Elective</td>
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</tbody>
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* University of Arkansas, Fayetteville
<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Spring Year 1</td>
<td>3 ENGL 1023 Composition II</td>
</tr>
<tr>
<td></td>
<td>3 JOUR 1033 Fundamentals of Journalism*</td>
</tr>
<tr>
<td></td>
<td>3 Continue Math Sequence</td>
</tr>
<tr>
<td></td>
<td>3 BIOL 1543/1541L Principles of Biology</td>
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<tr>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td></td>
<td><strong>Total Hours: 16</strong></td>
</tr>
<tr>
<td>Spring Year 2</td>
<td>4 PHYS 2013/2011L College Physics I</td>
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<tr>
<td></td>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>3 PHYS 3603 Introduction to Modern Physics</td>
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<tr>
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<td><strong>Total Hours: 16</strong></td>
</tr>
<tr>
<td>Spring Year 3</td>
<td>1 PHYS 5601L Modern Physics Lab</td>
</tr>
<tr>
<td></td>
<td>3 PHYS/ASTR Group A</td>
</tr>
<tr>
<td></td>
<td>3 JOUR 3633 Media Law*</td>
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<td><strong>Total Hours: 15</strong></td>
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<tr>
<td>Spring Year 4</td>
<td>1 PHYS 4203 Physics of Devices, or other PHYS/ASTR Group A</td>
</tr>
<tr>
<td></td>
<td>1 PHYS 4991 Senior Seminar</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours: 124</strong></td>
</tr>
</tbody>
</table>

* Required for journalism emphasis.
† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

**Writing Requirement:** Students majoring in physics may satisfy the Fulbright College writing requirement by means of a senior thesis (PHYS 498V), an honors thesis submitted in fulfillment of the requirements of the honors program (PHYS 399VH), or by means of a paper submitted as part of PHYS 4991 or any physics or astronomy course numbered 3000 or above. Students electing the last route must obtain approval of the instructor during the first three weeks of the semester. The research/analytical paper should demonstrate competency in the use of word processing software and also at least one computer analytical tool such as a spreadsheet, mathematical or graphics program, or an original program written by the student.

**Assessment of Student Learning:** In accordance with state, University, and college requirements, all students must have learning assessed before graduation. Students majoring in physics will be assessed in the course PHYS 4991, which must be taken in the year prior to graduation.

**Requirements for Departmental Honors in Physics:** The Departmental Honors Program in Physics provides upper-division undergraduate students with an opportunity to formally participate in scholarly physics activities. Honors candidates carry out independent study and research under the guidance of the physics faculty and participate in special honors classes, seminars, and colloquia. Outstanding student achievement will be recognized by awarding the distinction “Physics Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies. To be considered as a candidate for higher distinctions, however, a student must achieve at least a 3.50 cumulative grade-point average in physics and mathematics. In addition to satisfying the general college requirements for the bachelor’s degree with honors, an honors candidate in physics must
1. become a candidate no later than the first semester of the junior year of study,
2. enroll in honors sections of physics courses when available,
3. enroll in six hours of honors research PHYS 399VH,
4. enroll in at least one physics honors colloquium PHYS 3923H,
5. complete and orally defend an honors thesis based upon the project carried out in PHYS 399VH, and
6. achieve a cumulative grade-point average of 3.125 in physics.

**Requirements for a Minor in Physics:** Students wishing to obtain a minor in physics must take either PHYS 2013/2011L, PHYS 2033/2031L or PHYS 2054/2050L, PHYS 2074/2070L plus at least seven additional hours of physics courses numbered 3000 or above. A student must notify the department of his or her intent to minor.

**Physics (B.A. or B.S.) Physical/Earth Science Teacher Licensure Requirements:**
Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach science in middle school should consult with a middle level adviser in the College of Education and Health Professions. For information on advanced degrees in physics, see the Graduate School Catalog.

SEE PAGE 383 FOR PHYSICS (PHYS) COURSES
POLITICAL SCIENCE (PLSC)

Todd G. Shields
Chair of the Department
428 Old Main
479-575-3356
http://www.uark.edu/depts/plscinfo/
• Professors Kelley, Reid, Shields, Waligorski
• Professors Emeriti Neuse, Savage, Vanneman
• Associate Professors Conge, Ghabdian, Kerr, Parry, Ryan, Schreckhise
• Associate Professor Emeritus Twerser
• Assistant Professors Dowdle, Hansen, Kim, Zeng
• Assistant Professor Emeritus Elston

Requirements for B.A. Degree with a Major in Political Science:
30 semester hours at least 21 of which must be above 3000.
1. Students are required to take both PLSC 2003 American National Government and PLSC 2013 Intro. to Comparative Politics.
2. Students must choose one of the following:
   PLSC 2813 Intro. to International Relations
   PLSC 3103 Intro. to Public Administration
   PLSC 3963 Modern European Political Thought.
3. Students fulfill the remaining requirements from among any of the available political science courses.
At least 21 hours must be in the 3000-4000 level. No more than 9 hours may come from PLSC 300V, 394V, 498VH, or 499VH.

American Politics
PLSC 2003, PLSC 3203, PLSC 3223, PLSC 3243, PLSC 3253,
PLSC 4203, PLSC 4213, PLSC 4223, PLSC 4243, PLSC 4253,
PLSC 4273, PLSC 4283, PLSC 4373

Comparative Politics
PLSC 3503, PLSC 3523, PLSC 3553, PLSC 3573, PLSC 4503,
PLSC 4513, PLSC 4543, PLSC 4563, PLSC 4573, PLSC 4583,
PLSC 4593

International Politics
PLSC 3803, PLSC 3813, PLSC 3823, PLSC 3853, PLSC 4803,
PLSC 4843, PLSC 4873

Political Theory
PLSC 3603, PLSC 3913, PLSC 3933, PLSC 3953, PLSC 3963,
PLSC 3973, PLSC 3983, PLSC 4503, PLSC 4903, PLSC 4923

Public Administration
PLSC 3103, PLSC 3113, PLSC 3153, PLSC 4193

Writing Requirement: The college writing requirement is fulfilled by submitting an acceptable research/analytical paper to the department for approval at least four weeks prior to graduation. The paper may be derived from completion of an honors essay (PLSC 499VH), a senior thesis (PLSC 498V), or some other advanced course in political science. The student is urged to consult with his or her faculty adviser no later than early in the first semester of the senior year.

Requirements for Departmental Honors in Political Science: The Departmental Honors Program in Political Science offers junior and senior students the opportunity to enroll in enriched and advanced courses and to do independent research in their senior year. Honors candidates are eligible for honors colloquia, honors courses, some advanced seminars, and an independent studies project, usually in close collaboration with one or more members of the faculty.

In addition to satisfying the general college honors requirements for the bachelor's degree, honors candidates in political science must successfully complete a total of 36 hours of Political Science credit, including 12 hours of honors course work. Six of the 12 hours will be honors essay credit (PLSC 499VH) and will be taken during the senior year. Successful completion and defense of senior essay or thesis is a major part of the Political Science Honors Program, and students should begin discussing it with the Honors Adviser during their junior year. The preferred methods for satisfying the remaining six hours is to enroll in an honors colloquium (3923H) in political science or another department, by enrolling in a graduate-level seminar in political science, or by enrolling in PLSC 399VH (honors course).

Under exceptional circumstances, students may satisfy honors requirements by enrolling in PLSC 394V, by enrolling in honors sections in other departments, or by enrolling in colloquia or graduate seminars in other departments, each of which requires approval by the department chairperson. Successful completion of the requirements will be recognized by the award of the distinction “Political Science Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate's program of honors studies. For full details consult the chairperson of the political science department.

Political Science Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program as well as page 126 of this chapter for College requirements. The following eight-semester plan refers to additional BA Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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<tbody>
<tr>
<td><strong>Fall Semester Year 1</strong></td>
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</tr>
<tr>
<td>1</td>
<td>ENGL 1013 Composition I</td>
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<tr>
<td>3-4</td>
<td>MATH 2043 (if required) or MATH 2053, 2183 or 2554</td>
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<td>Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>15-16</td>
<td>Semester Hours</td>
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<td><strong>Spring Semester Year 1</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td>3</td>
<td>MATH 2043, 2053, 2183 or Core from areas a, b, c, or d (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>PLSC 2013 Intro to Comparative Politics or PLSC 2003 (if not taken earlier)</td>
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<tr>
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<td>PLSC course from Group 2 or Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>4</td>
<td>Core from area f (as needed)</td>
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<td>16</td>
<td>Semester Hours</td>
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<tr>
<td><strong>Fall Semester Year 2</strong></td>
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<tr>
<td>3</td>
<td>PLSC course from Group 2 or Core from areas a, b, c, d, or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>PLSC 2013 (if not taken earlier) or PLSC course from Group 3</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, d, or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>15</td>
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<td><strong>Spring Semester Year 2</strong></td>
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<tr>
<td>3</td>
<td>Core from area g (if required) or Advanced Level Elective</td>
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<tr>
<td>3</td>
<td>PLSC course from Group 2 (if not taken) or PLSC course from Group 3</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>3</td>
<td>PLSC course from Group 3</td>
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<td>3</td>
<td>PLSC course from Group 3</td>
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<tr>
<td>4</td>
<td>Core from area f</td>
</tr>
<tr>
<td>16</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>
Political Science (B.A.) Social Studies Teaching Licensure Requirements:

Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach social studies in middle school should consult with a middle level adviser in the College of Education and Health Professions.

Combined Majors

Political Science and African-American Studies: For the requirements for a combined major in political science and African-American studies, see page 128.

Political Science and Journalism: The combined major in political science and journalism is recommended for those students who have a strong interest in the reporting of public affairs as a career. The political science requirement may be satisfied by 24 semester hours of courses including PLSC 2003, PLSC 2013, PLSC 4373, and 15 additional hours of advanced political science courses elected from one or the other of two field concentrations. Those wishing to emphasize American political affairs may elect the additional courses elected from one or the other of two field concentrations.

For the eight-semester program plan or the journalism requirements, see the combined major in Journalism and Political Science on page 172. Students should consult with their adviser in each department.

Political Science and Latin American Studies: For the requirements for a combined major in political science and Latin American studies, see page 173.

Requirements for a Minor in Political Science: 18 hours including PLSC 2003 or PLSC 2013. At least 9 of these must be in courses numbered 3000 or above, and courses must be chosen from at least two of the five political science fields. Students should consult with an adviser in the department for the selection of appropriate courses.

Minor in Legal Studies: This minor will introduce undergraduate students to the study and application of law by taking law-related courses in a number of disciplines. It provides a focus for students who are interested in the law, whose careers will require a measure of legal knowledge, or for those considering entering law school.

Requirements for a Minor in Legal Studies: 18 semester hours to include the following:

- PLSC 3243, and either PLSC 4253 or PLSC 4263
- 12 hours chosen from the following:
  - COMM 4113
  - JOUR 3633
  - PHL 4143
  - CMJS 3003
  - CMJS 3503
  - PLSC 3813
  - PLCS 4193
  - SCWK 3533
  - ARCH 5323
  - BLAW 3033
  - BLAW 3043
  - AGEC 3503
  - INEG 3113
  - OMGT 4313
  - FDSC 3202

Students should consult with their advisers each semester.

For requirements for the M.A. degree in political science, the M.P.A. degree, or the combined J.D./M.P.A. degree, see the Graduate School Catalog. SEE PAGE 385 FOR POLITICAL SCIENCE (PLSC) COURSES.

Public Administration

The degree in public administration is designed to prepare students for career positions with local, state, or federal government agencies, labor organizations, non-governmental organizations and other groups. These organizations are constantly in need of able people thoroughly trained in the principles of public administration and management, government budgeting, economic planning, and economic research.

The B.S.P.A. is a flexible liberal arts degree with some courses in business administration. This flexibility results from the opportunity to take junior-senior electives from business, economics, or political science. The B.S.P.A. adviser can assist in structuring a personalized degree plan to enhance a student's future academic or professional options.

Requirements for B.S. Degree with a Major in Public Administration:

- 30 semester hours, at least 21 of which must be above 3000. Students are advised that they must meet all prerequisites for courses taken in other departments.
- Students are required to complete the following six courses:
  - STAT 2303 Principles of Statistics or another data analysis course approved by B.S.P.A. adviser
  - ECON 2013 Principles of Macroeconomics (MATH 1203)
  - PLSC 2003 American National Government
  - PLSC 3103 Public Administration (PLSC 2003)
  - PLSC 4193 Administrative Law
  - PLSC 4283 Federalism and Intergovernmental Relations

Students fulfill the remaining 12 hours from among any of the following courses. Other courses may be substituted with the approval of the program adviser.
### Political Science
- PLSC 3113, PLSC 3153, PLSC 3183, PLSC 3203, PLSC 3223, PLSC 3243, PLSC 3253, PLSC 4203, PLSC 4213, PLSC 4223, PLSC 4233, PLSC 4243, PLSC 4253, PLSC 4833

### Agricultural Economics
- AGEC 3503, AGEC 3523, AGEC 4163, AGEC 4313

### Business Law
- BLAW 3033, BLAW 3043

### Economics
- ECON 3333, ECON 3353, ECON 3433, ECON 3533, ECON 3843, ECON 3853, ECON 4633, ECON 4643

### Management
- WCOB 2023, WCOB 2033, MGMT 4253, MGMT 4263, MGMT 4333

Senior Writing Requirement: All Public Administration students must satisfy the senior-level writing requirement as specified by the Department of Political Science.

Math/Science requirement for Public Administration majors: 18 hours of science and math are required to include at least 12 hours laboratory natural sciences and 6 hours of math (MATH 2053 or higher is recommended).

### Public Administration Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S. Core Requirement Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirement hours are met, students may substitute a three-hour (or more) general elective in place of a core area.

#### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 3-4 MATH 1203 (If required) or †MATH 2043, 2053, or 2554
- 3 PLSC 2003 American Nat'l. Government (counts in core area a)
- 3 Core from areas a, b, or c as needed)
- 3 Core from areas a, b, or c as needed)
- 15-16 Semester Hours

#### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 3-4 †MATH 2043, 2053, or 2554 (as needed)
- 3 STAT 2303 Principles of Statistics or Approved Alternative
- 3 Core from areas a, b, or c (as needed)
- 3 General Elective
- 15-16 Semester Hours

#### Fall Semester Year 2
- 3 †PLSC 3103 Public Administration
- 3 †ECON 2013 Principles of Macroeconomics (counts in core area e)
- 3 Core from areas a, b, or c as needed)
- 4 Core from area d (below, as needed)
- 3 General Elective
- 16 Semester Hours

#### Spring Semester Year 2
- 3 †Core group f (if required) or †Advanced Level Elective
- 3 †HPADM Junior-Senior electives (as needed)
- 3 †PLSC 4193 Administrative Law or †PLSC 4283 Federalism and Intergovt Relations
- 3 Core from areas a, b, or c as needed)
- 4 Core from area d (below, as needed)
- 16 Semester Hours

### Fall Semester Year 3
- 3 †PLSC 4193 Administrative Law or †PLSC 4283 Federalism and Intergovt Relations
- 3 †HPADM Junior-Senior electives (as needed)
- 3 Core from areas a, b, or c as needed)
- 4 Core from area d (below, as needed)
- 3 Advanced Level Elective
- 16 Semester Hours

### Spring Semester Year 3
- 3 †HPADM Junior-Senior electives (as needed)
- 3 †Upper Level Fulbright College course
- 3 Core from areas a, b, or c (as needed)
- 6 General Electives
- 15 Semester Hours

### Fall Semester Year 4
- 3 †HPADM Junior-Senior electives (as needed)
- 3 †Advanced Level Elective
- 3 Core from areas a, b, or c (as needed)
- 7 General Electives
- 16 Semester Hours

### Spring Semester Year 4
- 3 †Upper Level Fulbright College course or General Elective
- 3 †Advanced Level Elective
- 9 General Electives
- 15 Semester Hours
- 124 Total Hours

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Public Administration Junior-Senior approved electives:
- PLSC: 3113, 3153, 3183, 3203, 3223, 3243, 3253, 4203, 4213, 4223, 4233, 4243, 4253, 4833
- AGEC: 3503, 3523, 4163, 4313
- BLAW: 3033, 3043
- ECON: 3333, 3353, 3433, 3533, 3843, 3853, 4633, 4643
- WCOB 2023, 2033
- MGMT 4253, 4263, 4333

Core area d: Natural Sciences: 12 hours to be chosen from the following:

### Biological Sciences
- ANTH 1013/1011L Biological Anthropology
- BIOL 1543/1541L Principles of Biology
- BIOL 1613/1611L Plant Biology
- BIOL 2013/2011L General Microbiology
- BIOL 1603/1601L General Zoology

### Physical Sciences
- ASTR 2003/2001L Survey of the Universe
- CHEM 1053/1051L Chemistry in the Mod. World
- CHEM 1103/1101L Univ. Chem I
- CHEM 1123/1121L Univ. Chem II
- GEOL 1113/1111L Gen. Geology
- GEOL 1133/1131L Environmental Geology
- PHYS 2013 College Physics I
- PHYS 1023/1021L Physics in Human Affairs
- PHYS 2054 University Physics I
- PHYS 2074 University Physics II
- PHYS 2033/2031L College Physics II
- SEE PAGE 381 FOR PUBLIC ADMINISTRATION (PADM) COURSES
PSYCHOLOGY (PSYC)

Douglas A. Behrend
Chair of the Department
216 Memorial Hall
479-575-4256
http://www.uark.edu/depts/psyc/
psycapp@uark.edu

The Psychology Department offers a B.A. degree with a major in Psychology. Students majoring in psychology must fulfill the eight-semester degree program. This program is designed to provide a broad foundation in psychology and to prepare students for various career options. The program includes courses in general psychology, research methods, and electives that allow students to specialize in areas of interest.

Requirements for B.A. Degree with a Major in Psychology: Minimum of 33 semester hours to include: PSYC 2003, PSYC 3013, PSYC 3023, PSYC 3093, PSYC 4053, or PSYC 4063; six hours chosen from PSYC 3103, PSYC 4073, PSYC 4123, PSYC 4143, PSYC 4183, PSYC 4193; three hours chosen from PSYC 328V or PSYC 4283; the remaining nine hours are free electives and may be chosen from any psychology course in the catalog, with no more than a total of six hours in 206V, 207V, and 399VH combined. A grade of "C" or better is required in all psychology courses used to satisfy the 33 hours of the major. In addition, a 2.00 cumulative grade-point average is required on all work completed in the Department of Psychology.

Students who want to pursue graduate training in psychology are advised to begin preparations early in their undergraduate careers. Grade-point average, scores on the Graduate Record Examinations, effective communications skills, preparation in the natural sciences and mathematics, and research experience (e.g., honors project, directed readings, laboratory experience) are the major criteria considered by admissions committees. To gain this research experience students are strongly encouraged to take the advanced research course, PSYC 328V.

Students with applied, paraprofessional, or human-service interests who plan to enter the job market with a B.A. in psychology are strongly encouraged to take relevant courses in other areas of interest, including, but not limited to, anthropology, sociology, social work, human development and family studies, education, and business administration.

Students interested in business applications of psychology (e.g., marketing, management) are similarly encouraged to take related courses in the Sam M. Walton College of Business; minors are also available in several areas of business. For more information concerning psychology as a major or careers in psychology and related fields, please contact the Psychology Advising Coordinator, Memorial Hall, room 203.

Writing Requirement: Students majoring in psychology will satisfy the Fullbright College writing requirement by successful completion of PSYC 3683, PSYC 3783, each of which requires a final research paper.

Requirements for Graduation with Honors in Psychology: Both the four-year and the Departmental Honors Program in Psychology provide undergraduate students with an opportunity to formally participate in scholarly psychology activities. Honors candidates carry out independent study and research under the guidance of the psychology faculty and participate in special honors classes, seminars, and colloquia. In addition to satisfying the general college honors requirements, honors candidates in psychology are required to complete and orally defend an honors thesis based upon the independent study carried out in PSYC 399VH. In order to successfully complete the required thesis, students should choose an honor's adviser as early as possible. An adviser should be selected, and an Honor's Agreement completed, no later than the first semester in a student's junior year. Students must register for, and complete, a minimum of 6 hours of PSYC 399VH. PSYC 399VH may be taken for 1 to 6 hours of credit each semester and repeated for a maximum of 12 hours. Nine hours are ordinarily needed to complete the research project and to prepare the honors thesis.

Honor candidates in psychology are encouraged to enroll in as many honors classes, seminars, and colloquia as possible, or as required by the honor's program in which they are enrolled. Students graduating with honors typically graduate cum Laude. Higher degree distinctions (Magna cum Laude, Summa cum Laude) are awarded by the Honors Council, recommended only in truly exceptional cases, and are based upon the whole of the candidate's program of honors studies.

Psychology Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university core requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Courses in psychology groups A, B and Capstone courses are listed after the program plan.

Fall Semester Year 1

<table>
<thead>
<tr>
<th>16-17 Semester Hours</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3 PSYC 2003 General Psychology or Core from areas a, b, c, d or e (as needed)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>15 Semester Hours</td>
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Spring Semester Year 1

<table>
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<tr>
<th>16-17 Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
</tr>
<tr>
<td>3-4 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 PSYC 3013 Research Methods or PSYC 2003 (if not taken earlier)</td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
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<td>3 Core from areas a, b, c, d or e or †PSYC Group A</td>
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<td>16-17 Semester Hours</td>
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Fall Semester Year 2

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<tbody>
<tr>
<td>†PSYC course from Group A or Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>†PSYC 3073 Research Methods or †PSYC 2013 (if not taken earlier)</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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Spring Semester Year 2

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<thead>
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<th>15 Semester Hours</th>
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<tbody>
<tr>
<td>†Core from area g (if still needed) or †Advanced Level Elective</td>
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<tr>
<td>†PSYC 3073 Research Methods or Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed) or †PSYC from Group A or B</td>
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<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<td>3 General Elective</td>
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Fall Semester Year 3

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<td>†PSYC course from Group A or B</td>
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<td>†PSYC 3073, or †PSYC 328V or General Elective</td>
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<tr>
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</tr>
<tr>
<td>4 Core from area f (as needed)</td>
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<tr>
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</table>
### RELIGIOUS STUDIES (RLST)

Sidney Burris  
Chair of Studies  
517 Old Main  
479-575-2509

- Professors Engels, King, Levine, Montgomery, Schneider, Spellman, Tsai
- Associate Professors Adler, Chappell, Coon, D’Alisera, Finlay, Gladbian, Senor, Tucker, Worden
- Assistant Professors Erickson, Schweiger

Drawing on faculty from the humanities and social sciences, this minor introduces students to the interdisciplinary and comparative study of religion.

**Program Requirements:** Students must complete 15 credit hours of regular courses listed below or special topics and seminars found in each semester's Schedule of Classes under Religious Studies. Of these 15 hours, 3 hours must include HUMN 2213 World Religions. Students also must choose ONE of the following gateway options:

- ANTH 3123 Anthropology of Religion
- HUMN 3203 Approaches to Religious Studies, or
- PHIL 4303 Philosophy of Religion

A maximum of six hours may be presented from courses taken in the student's major department.

- ANTH 3123 The Anthropology of Religion
- ANTH 3213 Indians of North America
- ANTH 3263 Indians of Arkansas and the South
- ANTH 4513 African Religions: Gods, Witches, Ancestors
- CLST 4003H “Greek Religion” or “Greek Sacred Space” or “Roman Religions”
- ENGL 3623 The Bible as Literature
- GREK 2003 Greek New Testament
- HIST 3003 History of Christianity
- HIST 3033 Islamic Civilization
- HIST 3083 Women and Christianity
- HIST 3263 History of the American Indian
- HIST 3923H Honors Colloquium: Sufism
- HIST 3923H Honors Colloquium: Honors Approaches to Religious Studies
- HIST 4043 Late Antiquity and the Early Middle Ages
- HIST 4053 Late Middle Ages
- HIST 4073 Renaissance and Reformation Europe
- HIST 4313 History of China to 1644
- HIST 4353 Middle East 600-1500
- HIST 4373 Mongol & Mamluk Middle East 1250-1520
- HIST 4393 The Ottoman Empire and Iran 1300-1722
- HIST 4533 American Social and Intellectual History to 1865
- HUMN 2213 Intro. to World Religions
- HUMN 3003 Religions of Asia
- HUMN 3163 On Death and Dying
- HUMN 3203 Approaches to Religious Studies
- HUMN 3923H “Thomas Merton” or “St. Peter’s and the Vatican”
- HUMN 4043 Religion and Film
- HUMN 425V Colloquium: Hebrew Bible in Translation
- HUMN 4913 Literary Reflections of the Holocaust
- PHIL 4013 Platonism and the Origin of Christian Theology
- PHIL 4023, Medieval Philosophy
- PHIL 4303 Philosophy of Religion
- PLSC 4593 Islam and Politics
- SOCI 3103 Religion and Society
- WLIT 2322 Greek and Roman Mythology

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### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>General Elective</strong></td>
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<tr>
<td><strong>3 Core from areas a, b, c, d or e (as needed)</strong></td>
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<tr>
<td><strong>3 †Advanced Level Elective</strong></td>
<td>3</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>124</td>
</tr>
</tbody>
</table>

† Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credit Hours</th>
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<tr>
<td><strong>General Elective</strong></td>
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<tr>
<td><strong>3 †Advanced Level Elective</strong></td>
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<tr>
<td><strong>3 Core from areas a, b, c, d or e (as needed)</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>124</td>
</tr>
</tbody>
</table>

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

### Spring Semester Year 4

<table>
<thead>
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<th>Requirement</th>
<th>Credit Hours</th>
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<tr>
<td><strong>3 †Advanced Level Elective</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>3 Core from areas a, b, c, d or e (as needed)</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td>124</td>
</tr>
</tbody>
</table>

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

‡ Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.

### Group A: Six hours required

- PSYC 3013 Social Psychology
- PSYC 3023 Abnormal Psychology
- PSYC 3093 Developmental Psychology
- PSYC 4063 Psychology of Personality
- PSYC 4053 Psychological Tests

### Group B: Six hours required

- PSYC 3103 Cognitive Psychology
- PSYC 4073 Psychology of Learning
- PSYC 4123 Perception
- PSYC 4143 History and Systems of Psychology
- PSYC 4183 Physiological Psychology
- PSYC 4193 Comparative Psychology
- PSYC Capstone Courses: Three hours required with a grade of “C” or higher.
- PSYC 328V Advanced Research
- PSYC 4283 Advanced Seminar

### Requirements for a Minor in Psychology

- Minimum of 18 hours including PSYC 203, PSYC 205, and PSYC 215. A maximum of three hours of PSYC 206 and/or PSYC 207 can be counted toward meeting the minor requirement. A grade of “C” or better is required in all psychology courses used to satisfy the 18 hours of the minor. In addition, a 2.00 cumulative grade-point average is required on all work completed in the Department of Psychology. A student must notify the department of his or her intent to minor.

**Psychology (B.A.) Teacher Licensure in Social Studies Requirements**

Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach social studies in middle school should consult with a middle level adviser in the College of Education and Health Professions.

For requirements for advanced degrees in psychology, see the Graduate School Catalog.

SEE PAGE 397 FOR PSYCHOLOGY (PSYC) COURSES
The Russian studies program focuses on the pre-Revolutionary period prior to 1917, on the communist period from 1917 to 1991, and on the post-communist period from 1991 onward. The geographic focus includes Russia, the other successor states that have emerged from the breakup of the Soviet Union, and East Europe.

Students wishing to maximize their knowledge of Russia and the other successor states and wishing to prepare for graduate training and/or employment in the private sector or government in positions related to the area may earn a combined major in Russian studies together with their major in another discipline. Students are required to coordinate their academic programs both with their advisers in the major department and with the Chairman of the Russian studies program. New students entering the program are required to notify both the major adviser and the chairman of studies of their intention to participate. Freshmen and sophomores considering this program are advised to begin their study of Russian as early as possible.

Language Requirement: The student must complete the equivalent of a third year of Russian language training such as RUSS 3013 and RUSS 3023. Students are strongly encouraged to obtain at least a portion of this training in an intensive summer or semester program which provides concentrated instruction beyond the conventional class experience.

Russian Studies Colloquium: The student must complete at least three hours in the Russian Studies Colloquium (RSST 4003). The Colloquium may be repeated with a change of subject for a maximum of six credits, with the three additional credits counted as non-departmental electives within the program.

Electives: The student must complete at least 18 hours in addition to the language requirement and the Colloquium, in courses with specific content related to Russian studies, or in individualized courses under faculty participating in the program. Students choosing to take individualized reading or directed research courses as a part of the RSST program must obtain the approval of the chairman of studies and their major adviser.

The following conditions apply to the selection of Russian studies electives:
1. courses must be selected from at least three separate departments;
2. a maximum of nine hours may be submitted from courses taken in any one department; and
3. a maximum of nine hours may be submitted from courses taken in the student's major department.

The following courses may be taken in fulfillment of elective requirements:

- **History**
  - HIST 4283 Russia to 1861
  - HIST 4293 Russia Since 1861

- **Political Science**
  - PLSC 394V Readings in Political Science
  - PLSC 4513 Creating Democracies
  - PLSC 4543 Government & Politics of Eastern Europe
  - PLSC 4563 Government & Politics of Russia
  - PLSC 4813 Politics of the Cold War
  - PLSC 5563 Russian and Soviet Political System

SEE PAGE 390 FOR RUSSIAN STUDIES (RSST) COURSES

**SOCIAL WORK, SCHOOL OF (SCWK)**

Marcia A. Shobe
Director of the School of Social Work

Melody Greer
Undergraduate Coordinator

106 ASUP
479-575-5039
http://socialwork.uark.edu/

- Professor Schriver
- Professor Emeritus King
- Associate Professors Christy-McMullin, DeCoster
- Associate Professor Emerita McGetrick
- Assistant Professors Boyas, Murphy, Shobe, Stauss
- Research Associate Professor Hurd
- Clinical Assistant Professors Greer, House, Allen

The social work program is fully accredited at the baccalaureate level by the Council on Social Work Education. The principal objective of the social work program is to prepare students for beginning generalist social work practice. Contact the undergraduate coordinator for admission and retention requirements.

Requirements for a Major in Social Work: 45 semester hours of social work courses including:

- SCWK 2133 Intro. to Social Work
- SCWK 3193 Human Diversity and Social Work
- SCWK 4073 Social Work Research and Technology I
- SCWK 4093 Human Behavior and the Social Environment I
- SCWK 4103 Human Behavior and the Social Environment II
- SCWK 4153 Social Welfare Policy
- SCWK 4333 Social Work Practice I
- SCWK 4343 Social Work Practice II
- SCWK 4412 Field Seminar I
- SCWK 4422 Field Seminar II
- SCWK 4434 Social Work Internship I
- SCWK 4444 Social Work Internship II
- SCWK 4733 Social Work Practice III
- Social Work electives – 6 hours

Students must adhere to requirements cited for each social work course. A grade of "C" or better must be earned in all core social work courses. If a student receives a grade of "D" in a core social work course, the course must be retaken with a grade of "C" or better prior to taking the course for which that course serves as a prerequisite.

The following social science and general education courses are also required as part of the social work curriculum:

- PLSC 2003 American National Government
- SOCI 2013 General Sociology
- BIOL 1543/1541L Principles of Biology or ANTH 1013/1011L Intro-
duction to Biological Anthropology and Lab
COMM 1313 Fundamentals of Communication
PSYC 2003 General Psychology
Statistics course, 3 hours
In addition, six hours of upper-level (3000-4000) social science electives, to be selected from SOCI, PSYC, ANTH, GNST, PLSC, COMM, GEOS, AAST, or HESC complete the degree requirements.

Writing Requirement: Social work students complete the research/analytical writing requirement by submitting the research paper from SCWK 4073 or honors paper to the social work faculty for approval.

Requirements for Departmental Honors in Social Work: The Departmental Honors Program in Social Work is an upper-division course of study with an independent investigation on a topic in social work. Students work closely with an advisor of their choice to define the goals of an honors project and to develop it to completion. They must take 12 hours (which may include 6 hours of thesis) in Honors Studies. In developing the project, students are encouraged to take honors courses, participate in honors colloquia, and do extensive background reading. The honors thesis may entail a library research project, a social work intervention project to be conducted in the field, or a policy analysis project. A research study that requires original data collection and analysis is preferred. In any case, the honors work is a serious long-term undertaking that should have direct value in supplementing the student’s regular departmental academic program. Enrollment in SCWK 399VH takes place after the student has done background reading and has actually begun a project. Students normally enroll in this course for three hours of credit. The course may be repeated for an additional 3 hours of credit if the student’s project is an extensive one. Regardless of the type of project, it is presented in written form and defended at an oral examination before an Honors Council Committee. Projects of extraordinarily high quality may be designated High Honors by the Committee. Successful completion of the requirements will be recognized by the award of the distinction “Social Work Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies.

Social Work Eight-Semester Degree Program
Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.S.W. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

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<thead>
<tr>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
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<tbody>
<tr>
<td>3</td>
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<td>SCWK 2133 Introduction to Social Work</td>
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<td>3</td>
<td>SCWK 3193 Human Diversity</td>
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<td>3-4</td>
<td>Statistics (SOCI, PSYC, STAT, etc) (4 Hours if SOCI)</td>
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<tr>
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<td>SCWK 4153 Social Welfare Policy</td>
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<td>SCWK 4073 Social Work Research and Technology</td>
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<tbody>
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<td>4</td>
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† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
* 3000-4000 level social science electives to be selected from Sociology, Psychology, Anthropology, Gender Studies, Political Science, Communications, Geosciences, African-American Studies, or Human Environmental Sciences.

Requirements for a Minor in Social Work: 18 hours including SCWK 2133, SCWK 3193, and SCWK 4153 (required) and any other nine hours of social work electives. A student must notify the department of his or her intent to minor. The social work minor is not preparation for social work practice and is not accredited by CSWE.
SEE PAGE 390 FOR SOCIAL WORK (SCWK) COURSES
SOCIETY AND CRIMINAL JUSTICE (SOCI)

William Schwab
Chair of the Department
211 Old Main
479-575-3205
http://www.uark.edu/depts/social/

- Distinguished Professor Smith
- University Professor Morgan
- University Professor Emeritus Ferritor
- Professors Fitzpatrick, Schwab, Zajciek
- Professors Emeriti Mangold, Prassel, Rice
- Associate Professors Adams, Holyfield, Koski, Worden, Yang
- Associate Professor Emeriti Patnoe, Sieger
- Assistant Professors Bradley, Mynstol, Morimoto
- Instructors Nalley, Thompson

Sociology (SOCI)

A Bachelor of Arts (B.A.) degree in sociology is useful preparation not only for graduate work in sociology, but also for pre-professional training in other fields, such as medicine, law, human services, or related work in the government.

Requirements for B.A. Degree with a Major in Sociology: 31 semester hours, to include SOCI 2013, SOCI 3193, SOCI 3223, SOCI 3301L, SOCI 3303, SOCI 3313, SOCI 4023, SOCI 4043, and 9 hours from sociology 3000- and 4000-level electives.

Writing Requirement: To fulfill the Fulbright College writing requirement, each sociology major will submit, prior to graduation, a substantial research or analytical paper, with a grade of "A" or "B" from an upper-division sociology course (3000-, 4000-, or 5000-level) to their departmental adviser. Satisfactory completion of an honors project or a senior thesis may fulfill this requirement.

Requirements for Departmental Honors in Sociology: The Departmental Honors Program in Sociology is an upper-division course of study based on independent investigation on a scholarly topic of sociological interest. To be eligible for sociology honors candidacy, students normally will have completed 28 semester hours and not more than 85 semester hours with a minimum cumulative grade-point average of 3.5. They must take 12 hours in Honors Studies, which may include 6 hours of thesis. In the junior year, three hours of directed reading, planning, or other work on a research problem should be selected from the following courses:

- SOCI 399VH Honors Course
- SOCI 403V Individual Study in Sociology
- SOCI 4043 Seminar in Sociology

In the senior year, the student will complete an honors project for up to six hours of credit in SOCI 399VH Honors Course. This honors research project will normally consist of an empirical investigation but may, with the approval of the honors director and the other departmental representatives, be intensive library research on a topic. All candidates must pass an oral examination given by an Honors Council Committee. Successful completion of the requirements will be recognized by the award of the distinction "Sociology Scholar Cum Laude" at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate's program of honors studies.

Sociology Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of any core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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<tr>
<td>3-4 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554</td>
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<td>3 SOCI 2013 General Sociology or Core from areas a, b, c, d or e (as needed)</td>
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<td>3 SOCI 3313 Social Research</td>
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<td>3 General Elective</td>
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<thead>
<tr>
<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3 SOCI 3193 Race, Class, &amp; Gender</td>
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<tr>
<td>3 SOCI 3223 Social Psychology</td>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 General Elective</td>
<td></td>
</tr>
<tr>
<td>16 Total Hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 SOCI 4043 Seminar in Sociology</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 General Elective</td>
<td></td>
</tr>
<tr>
<td>16 Total Hours</td>
<td></td>
</tr>
<tr>
<td>124 Total Hours</td>
<td></td>
</tr>
</tbody>
</table>
Requirements for a Minor in Sociology: 19 semester hours in sociology to include SOCI 2013, SOCI 3301L, SOCI 3303, SOCI 3313, and at least nine hours of 3000-level classes or above. A student must notify the department of her or his intent to minor.

Sociology (B.A.) Teacher Licensure in Social Studies Requirements: Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students wanting to teach social studies in middle school should consult with a middle level adviser in the College of Education and Health Professions.

Combined Major in Anthropology/Sociology: 36 hours with a minimum of 15 hours in each subject, to include SOCI 2013, SOCI 3013, SOCI 3303/3301L (or a course in statistics), SOCI 3313, and SOCI 4023 and ANTH 1013, ANTH 1011L, ANTH 1023, ANTH 3023/3021L, and ANTH 4013. Additional courses are to be selected in consultation with a representative of fields concerned.

For the eight-semester program plan for a combined major in Sociology and Anthropology, see the Anthropology entry on page 132.

For a combined major in sociology and African-American studies, see page 128.

For a major in criminal justice, see below.

For a major in social work, see page 195.

For requirements for an M.A. degree in sociology, see the graduate School Catalog.

See page 392 for sociology (soci) Courses, See page 331 for criminal justice (CMJS) Courses

Criminal Justice (CMJS)

William A. Schwab
Chair of Studies
211 Old Main
479-575-3205
http://www.uark.edu/depts/social/

The program in criminal justice is designed to prepare candidates for a variety of entry-level positions in criminal justice and to enable experienced personnel to expand their knowledge and skills. Drawing on a strong interdisciplinary base in the social sciences, the program provides education in the complexities of human behavior and problems of interpersonal relations in an increasingly urbanized America. The overall goal of the program is to enable men and women to contribute to the development and implementation of a fair and effective system of criminal justice.

Requirements for the B.A. Degree with Major in Criminal Justice: Minimum of 31 semester hours to include CMJS 2003, CMJS/SOCI 3023, SOCI/CMJS 3043, CMJS/SOCI 3203, SOCI 3301L, SOCI 3303, SOCI 3313, one course from CMJS 3003, CMJS 3503. Nine hours to complete the 31-semester-hour requirement from 3000- and 4000-level criminal justice or sociology courses not taken above.

For transfer students, a minimum of 18 hours of coursework in the major at the University of Arkansas is required.

Writing Requirement: To fulfill the Fulbright College writing requirement, each criminal justice major will submit, prior to graduation, a substantial research or analytical paper, with a grade of “A” or “B” from an upper-division criminal justice course (3000-, 4000-, or 5000-level) to their departmental adviser. Satisfactory completion of an honors project or a senior thesis may fulfill this requirement.

Requirements for Departmental Honors in Criminal Justice: The Departmental Honors Program in Criminal Justice is an upper-division course of study based on a topic in the area of criminal justice. To be eligible for criminal justice honors candidacy, students normally will have completed 28 semester hours and not more than 85 semester hours with a minimum cumulative grade-point average of 3.5. They must take 12 hours (which may include 6 hours of thesis) in Honors Studies. The honors program may be an intense study of a topic in criminal justice or an empirical research investigation. The candidate is expected to pass an oral examination given by an Honors Council Committee. Projects of extraordinarily high quality may be designated High Honors by the Committee. Successful completion of the requirements will be recognized by the award of the distinction “Criminal Justice Scholar Cum Laude” at graduation. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the whole of the candidate’s program of honors studies.

Criminal Justice Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semester plan refers to additional B.A. Core Requirement Areas (areas a, b, c, d, e, f, and g) found on page 200 at the end of this chapter. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>15-16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>3-4 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
<td></td>
</tr>
<tr>
<td>3 SOCI 2013 General Sociology or Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>15-16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>3-4 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 SOCI 2013 General Sociology (if still needed) or Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 CMJS 2003 Intro to CMJS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Core from area g (if needed) or Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 HCMJS 3043 The Police and Society</td>
<td></td>
</tr>
<tr>
<td>3 HCMJS/SOCI 3023 Criminology</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area f (as needed)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th>16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 SOCI 3303/3301L Social Data and Analysis/Lab</td>
<td></td>
</tr>
<tr>
<td>3 HCMJS/SOCI 3203 Corrections</td>
<td></td>
</tr>
<tr>
<td>3 Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>Semester</td>
<td>Course Details</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
</tr>
<tr>
<td>Spring Semester Year 3</td>
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</tr>
<tr>
<td>3</td>
<td>‡† SOCI 3313 Social Research</td>
</tr>
<tr>
<td>3</td>
<td>‡† CMJS 3803 Criminal Law and Society or ‡† CMJS 3503 Criminal Procedures</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>†Core from area g (if still needed) or †Advanced Level Elective</td>
</tr>
<tr>
<td>4</td>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>16</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>Fall Semester Year 4</td>
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</tr>
<tr>
<td>3</td>
<td>‡† CMJS/SCSI 3000-4000 elective</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>†Advanced Level Elective</td>
</tr>
<tr>
<td>3</td>
<td>General Elective</td>
</tr>
<tr>
<td>15</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>Spring Semester Year 4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>‡† CMJS/SCSI 3000-4000 elective</td>
</tr>
<tr>
<td>3</td>
<td>‡† CMJS/SCSI 3000-4000 elective</td>
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<tr>
<td>9</td>
<td>General Electives</td>
</tr>
<tr>
<td>15</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>124</td>
<td>Total Hours</td>
</tr>
</tbody>
</table>

† Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 122 of this chapter.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

SEE PAGE 331 FOR CRIMINAL JUSTICE (CMJS) COURSES.
### Additional Fulbright College BA/BSW Core Requirement Areas

<table>
<thead>
<tr>
<th>Core Area</th>
<th>Hours</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Communication</strong></td>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td><strong>c. Foreign Language</strong></td>
<td>Up to 12 hours (depending on placement)</td>
<td>Completion through the Intermediate II (2013) level in a single language (Includes course numbers 1003*, 1013, 2003, 2013) * 1003 is non-degree credit unless student completed two years in a single foreign language and takes 1003 in a different language. <strong>Students under this plan must begin with a degree-credit course in foreign language.</strong></td>
</tr>
<tr>
<td><strong>d. Fine Arts/ World Literature/ Philosophy</strong></td>
<td>15</td>
<td>Fine Arts – 6 hours from two areas: ARCH 1003 Architecture Lecture or LARC 1003 Landscape Architecture ARHS 1003 Art History or ARTS 1003 Art Studio (not core credit for art majors) COMM 1003 Film Lecture DANC 1003 Movement and Dance DRAM 1003 Theater Lecture (not core credit for drama majors) MLIT 1003 Music Lecture World Literature – 6 hours to include: WLIT 1113 World Literature I and either WLIT 1123 World Literature II OR a) a foreign language literature course b) any other WLIT course c) CLST 1003 Classical Studies: Greece or CLST 1013 Classical Studies: Rome Philosophy – 3 hours from: PHIL 2003 Introduction to Philosophy or PHIL 2103 Introduction to Ethics</td>
</tr>
<tr>
<td><strong>g. Advanced Composition</strong></td>
<td>3 hours - Exemption may be granted by either: a) grades of “A” or “B” in ENGL 1013 and “A” in ENGL 1023, both taken at UA or b) passing the Advanced Composition Exam* (Journalism majors must complete ENGL 2013)</td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing (ENGL 2013 is required for all journalism majors) (*Students must satisfy the ENGL 1013 and 1023 requirement and complete 30 credit hours before taking the Advanced Composition Exam. The exam must be taken before the student has completed 96 credit hours. Students who do not pass the Advanced Composition Exam must take ENGL 2003.)</td>
</tr>
</tbody>
</table>
### Additional Fulbright College BFA Core Requirement Areas

<table>
<thead>
<tr>
<th>Core Area</th>
<th>Hours</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Communication/Philosophy/Foreign Language</td>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication (required for art education) OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHIL 2203 Introduction to Logic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An additional foreign language</td>
</tr>
<tr>
<td>b. US History/American National Government and Western Civilization</td>
<td>9</td>
<td>U.S. History/American National Government – 3 hours from:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HIST 2003 History of the American People to 1877 or HIST 2013 History</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of the American People from 1877 or PLSC 2003 American National</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Government</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Western Civilization – 6 hours from:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HIST 1003 Institutions and Ideas of Western Civilization and HIST 1013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Institutions and Ideas of Western Civilization II</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR HIST 1113 World Civilizations I and HIST 1123 World Civilizations II</td>
</tr>
<tr>
<td>c. Foreign Language</td>
<td>Up to 9 hours (depending on placement)</td>
<td>Completion through the intermediate I (2003) level in a single language (includes course numbers 1003*, 1013, 2003)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 1003 is non-degree credit unless student completed two years in a</td>
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<tr>
<td></td>
<td></td>
<td>single foreign language and takes 1003 in a different language.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students under this plan must begin with a degree-credit course in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>foreign language.</td>
</tr>
<tr>
<td>d. World Literature</td>
<td>6</td>
<td>WLIT 1113 World Literature I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WLIT 1123 World Literature II</td>
</tr>
<tr>
<td>e. Social Sciences</td>
<td>3</td>
<td>ANTH 1023 Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ECON 2013 Principles of Macroeconomics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ECON 2143 Basic Economics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GEOG 2003 World Regional Geography</td>
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<tr>
<td></td>
<td></td>
<td>PSYC 2003 General Psychology (required for art education)</td>
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<tr>
<td></td>
<td></td>
<td>SOCI 2013 General Sociology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOCI 2033 Social Problems</td>
</tr>
<tr>
<td>f. Natural Sciences</td>
<td>8 hours with 4 hours of Biological Sciences and 4 hours of Physical</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Biological Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ANTH 1011L/1013 Biological Anthropology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 1541L/1543 Principles of Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 1611L/1613 Plant Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 1601L/1603 General Zoology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Sciences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASTR 2001L/2003 Survey of the Universe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CHEM 1011L/1013 Chemistry in the Mod. World</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GEOL 1111L/1113 General Geology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 1021L/1023 Physics in Human Affairs</td>
</tr>
<tr>
<td>g. Advanced Composition</td>
<td>3 hours - Exemption may be granted by either: a) grades of &quot;A&quot; or &quot;B&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>in ENGL 1013 and &quot;A&quot; in ENGL 1023, both taken at UA or b) passing the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advanced Composition Exam*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*(Students must satisfy the ENGL 1013 and 1023 requirement and complete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 credit hours before taking the Advanced Composition Exam. The exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>must be taken before the student has completed 96 credit hours. Students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>who do not pass the Advanced Composition Exam must take ENGL 2003.)</td>
</tr>
</tbody>
</table>
### Additional Fulbright College BM Core Requirement Areas

<table>
<thead>
<tr>
<th>Core Area</th>
<th>Hours</th>
<th>Courses</th>
</tr>
</thead>
</table>
| a. US History/ American National Government and Western Civilization | 9     | U.S. History/American National Government- 3 hours from:  
HIST 2003 History of the American People to 1877  
or HIST 2013 History of the American People from 1877  
or PLSC 2003 American National Government  
Western Civilization – 6 hours from:  
HIST 1003 Institutions and Ideas of Western Civilization and HIST 1013 Institutions and Ideas of Western Civilization II  
OR HIST 1113 World Civilizations I and HIST 1123 World Civilizations II |
| b. Foreign Language                                 | Up to 6 hours (depending on placement) | Completion through the Elementary II (1013) level in a single language (includes course numbers 1003* and 1013)  
* 1003 is non-degree credit unless student completed two years in a single foreign language and takes 1003 in a different language. Students under this plan must begin with a degree-credit course in foreign language. |
| c. Fine Arts/ World Literature                     | 6     | MLIT 1003 Music Lecture  
WLIT 1113 World Literature |
| d. Social Sciences                                  | 3     | ANTH 1023 Introduction to Cultural Anthropology  
ECON 2013 Principles of Macroeconomics  
ECON 2143 Basic Economics  
GEOG 2003 World Regional Geography  
PSYC 2003 General Psychology (Required for Music Education)  
SOCI 2013 General Sociology  
SOCI 2033 Social Problems |
| e. Natural Sciences                                 | 8 hours with 4 hours of Biological Sciences and 4 hours of Physical Sciences | Biological Sciences  
ANTH 1011L/1013 Biological Anthropology  
BIOL 1541L/1543 Principles of Biology  
BIOL 1611L/1613 Plant Biology  
BIOL 2011L/2013 General Microbiology  
BIOL 1601L/1603 General Zoology  
Physical Sciences  
ASTR 2001L/2003 Survey of the Universe  
CHEM 1051L/1053 Chemistry in the Mod. World  
CHEM 1101L/1103 University Chemistry I  
CHEM 1121L/1123 University Chemistry II  
GEOL 1111L/1113 General Geology  
GEOL 1131L/1133 Environmental Geology  
PHYS 1021L/1023 Physics in Human Affairs  
PHYS 2011L/2013 College Physics I  
PHYS 2031L/2033 College Physics II  
PHYS 2050L/2054 University Physics I  
PHYS 2070L/2074 University Physics II |
| f. Advanced Composition                             | 3 hours - Exemption may be granted by either: a) grades of “A” or “B” in ENGL 1013 and “A” in ENGL 1023, both taken at UA or b) passing the Advanced Composition Exam* | ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing  
*(Students must satisfy the ENGL 1013 and 1023 requirement and complete 30 credit hours before taking the Advanced Composition Exam. The exam must be taken before the student has completed 96 credit hours. Students who do not pass the Advanced Composition Exam must take ENGL 2003.) |
## Additional Fulbright College BS Core Requirement Areas

<table>
<thead>
<tr>
<th>Core Area</th>
<th>Hours</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. US History/ American National Government and Western Civilization</td>
<td>9</td>
<td>U.S. History/American National Government - 3 hours from: HIST 2003 History of the American People to 1877 or HIST 2013 History of the American People from 1877 or PLSC 2003 American National Government Western Civilization - 6 hours from: HIST 1003 Institutions and Ideas of Western Civilization and HIST 1013 Institutions and Ideas of Western Civilization II OR HIST 1113 World Civilizations I and HIST 1123 World Civilizations II</td>
</tr>
<tr>
<td>b. Foreign Language</td>
<td>Up to 9 hours (depending on placement)</td>
<td>Completion through the Intermediate I (2003) level in a single language (Includes course numbers 1003*, 1013, 2003) * 1003 is non-degree credit unless student completed two years in a single foreign language and takes 1003 in a different language. Students under this plan must begin with a degree-credit course in foreign language.</td>
</tr>
<tr>
<td>c. Fine Arts/ World Literature/ Philosophy</td>
<td>9 hours total selected from at least 2 different areas</td>
<td>Fine Arts: ARCH 1003 Architecture Lecture or LARC 1003 Landscape Architecture ARHS 1003 Art History or ARTS 1003 Art Studio COMM 1003 Film Lecture DANC 1003 Movement and Dance DRAM 1003 Theater Lecture MLIT 1003 Music Lecture World Literature: WLIT 1113 World Literature I WLIT 1123 World Literature II OR a) a foreign language literature course b) any other WLIT course Philosophy: PHIL 2003 Introduction to Philosophy PHIL 2103 Introduction to Ethics PHIL 2203 Introduction to Logic</td>
</tr>
<tr>
<td>d. Natural Sciences</td>
<td>Determined by the department of the major</td>
<td></td>
</tr>
<tr>
<td>e. Social Sciences</td>
<td>3</td>
<td>ANTH 1023 Introduction to Cultural Anthropology ECON 2013 Principles of Macroeconomics or ECON 2143 Basic Economics GEOG 2003 World Regional Geography PSYC 2003 General Psychology SOCI 2013 General Sociology</td>
</tr>
<tr>
<td>f. Advanced Composition</td>
<td>3 hours - Exemption may be granted by either: a) grades of &quot;A&quot; or &quot;B&quot; in ENGL 1013 and &quot;A&quot; in ENGL 1023, both taken at UA or b) passing the Advanced Composition Exam*</td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing <em>(Students must satisfy the ENGL 1013 and 1023 requirement and complete 30 credit hours before taking the Advanced Composition Exam. The exam must be taken before the student has completed 96 credit hours. Students who do not pass the Advanced Composition Exam must take ENGL 2003.</em>)</td>
</tr>
</tbody>
</table>
MISSION AND OBJECTIVES

Vision Statement
The Sam M. Walton College of Business is a nationally competitive business school that connects people with organizations and scholarship with practice by combining excellent student learning experiences with quality research serving Arkansas and the world.

Core Values
- **Excellence**: We strive for excellence in all we do.
- **Professionalism**: We believe organizational practices must be built on an ethical foundation and high standards of professional behavior.
- **Innovation**: We value creativity, innovation, and entrepreneurial spirit.
- **Collegiality**: We believe in working together to examine situations and ideas from diverse perspectives.

Mission Statement
The Walton College, the flagship business school of the state of Arkansas, has a three-fold mission:
- **Teaching**: Educate a diverse population of students in bachelor’s, master’s, and doctoral programs to be tomorrow’s business, community, and academic leaders;
- **Research**: Discover and disseminate knowledge through our research to support excellence and innovation in organizations; and
- **Service**: Share our business expertise in support of our state, our professions, and the academic community.

FACILITIES AND RESOURCES

The Walton College offers degree programs for undergraduate students and for graduate students at both the master’s and doctoral levels.

The Walton College is housed in four modern buildings supporting on-campus programs. These attractive facilities provide technology-equipped classrooms and eight state-of-the-art computer laboratories for both for business classes and individual use. The buildings also house faculty and administrative offices, honors program study area with computer access, the Walton College Career Center, and a large study room equipped for individual as well as group studying.

The library of the college is part of the general University Libraries and is housed in Mullins Library. The business and economics collection comprises approximately 55,000 volumes and makes this library one of the best in the region.

Walton College also operates centers for research, outreach, and public service. Information about these centers may be found in the University Centers and Research Units section of this catalog. Walton College centers include the following:
- Arkansas Household Research Panel
- Applied Sustainability Center
- Bessie B. Moore Center for Economic Education
- Center for Business and Economic Research
- Center for Management and Executive Education
- Center for Retailing Excellence
- Garrison Financial Institute
- Information Technology Research Center
- Supply Chain Management Research Center
- Small Business Development Center

DEGREES OFFERED

Undergraduate students may pursue curricula leading to one of the following degrees: Bachelor of Science in Business Administration (B.S.B.A.), Bachelor of Science in International Business (B.S.I.B.). In each of these degree programs, the pre-business requirements must be completed before students...
may enroll in upper division business courses. Students in Walton College may pursue an academic minor in business or in the J. William Fulbright College of Arts and Sciences. Walton College also offers business minors for business and non-business students. Degree programs and minors are outlined on subsequent pages.

MAJORS, CONCENTRATIONS, AND MINORS

**Majors with Concentrations**

- Accounting
- Economics
- Business Economics
- International Economics and Business
- Finance
- Banking
- Financial Management/Investment
- Insurance
- Real Estate
- Personal Financial Management
- General Business
- Information Systems
- Management
- Human Resource Management
- Small Business and Entrepreneurship
- Organizational Leadership
- Marketing
- Marketing Management
- Retail Marketing
- Transportation

**Minors**

- Accounting
- Business Economics
- Enterprise Resource Planning
- Finance
- Financial Economics
- Information Systems
- Management
- Marketing
- Transportation

**OTHER PROGRAMS**

**Cooperative Education**

Cooperative education (co-op) is an academic program that enables students to gain degree-related experience prior to graduation. It is a planned, progressive educational strategy in which the student obtains work experience related to his or her academic major and career goals. Participating students earn academic credit for their work experiences and are always paid by their employers. Co-op students can maintain their status as full-time students while participating in the program, even if their co-op experience requires they spend a semester working full-time.

Walton College students are eligible for co-op credit if they have 1) completed the pre-business core and have obtained at least 60 hours of credit, 2) a cumulative grade-point average of 2.5 or better, and 3) a grade-point average of 2.5 or better for the last full-time term completed. Students may receive one hour of credit per semester for a job that requires 12-19 hours of work per week or two hours of credit per semester for a job that requires 20 or more hours per week. A maximum of six hours of degree credit may be awarded as a junior-senior-level business elective. Full-time students who work 40 hours or more per week in internships approved by the co-op education academic coordinator are eligible for three hours of academic credit per semester, or for full summer, provided they have a minimum GPA of 2.75, as well as having received a GPA of at least 2.75 in the prior full-time semester.

Students may seek either to qualify a job they have found themselves for co-op credit, or they may seek an employment opportunity through the Walton College Career Center, WJWH 226. The employment opportunity may be either a full-time, off-campus work assignment that alternates with semesters spent on campus taking courses (an alternating co-op), or it may be a part-time job undertaken concurrently with course work (a parallel co-op). Once a student has been matched with an approved job, the co-op coordinator, the faculty co-op adviser, the student's work place supervisor, and the student work together to formulate career-related learning objectives for the coming semester of work. These objectives must be in writing and in to the cooperative education coordinator in order for a student to be registered for co-op. At the end of each semester of work, the student is required to submit a three- to ten-page paper (depending on credit hours to be received) that re-states the student's learning objectives for the semester and discusses how the job experience fulfilled the objectives. The student is also required to submit an employer evaluation form, and the work supervisor is asked to submit an evaluation of the student's work.

For information on participating in Walton College co-op program, a current listing of co-op opportunities, and phone numbers of people with whom you may discuss these opportunities, visit the Cooperative Education home page on the Web at http://waltoncollege.uark.edu/coop/.

**COLLEGE ADMISSION REQUIREMENTS**

All students admitted to the University of Arkansas, Fayetteville, are eligible for admission to the Sam M. Walton College of Business. Students will be required to follow the degree program requirements set forth in the catalog corresponding to the student's first semester in Walton College, not the first semester of enrollment at the University of Arkansas.

**COLLEGE SCHOLARSHIPS**

High school graduates who expect to enroll in Walton College are encouraged to apply for scholarships made available to freshmen by individuals, business firms, and organizations. Also available to freshmen, regardless of degree program, are freshmen academic scholarships. Current Walton College students may apply for both college and departmental scholarships beginning in January of each year for the following academic year. Information on these financial awards may be secured from the University Scholarship Office and the Walton College Undergraduate Programs Office.

**STUDENT ORGANIZATIONS**

In addition to the general university student organizations, Walton College Student Ambassadors, Study Abroad Ambassadors, and a Business Dean’s Student Advisory Board, there are several college societies open to Walton College students. These include the following:

- Alpha Kappa Psi (business professional)
- American Marketing Association
- Assoc. of Information Technology Professionals
Transfer of Credit Policies

For course work taken at other institutions, the following policies apply to the transfer of credit:

1. Transfer students considering admission to pursue a major in Walton College must have completed the pre-business courses and requirements listed above and have a 2.50 (on a 4.00 scale) cumulative grade-point average in the pre-business courses and in his or her overall grade-point average. Transfer students will be classified as pre-business students until pre-business core requirements have been completed.

2. A pre-business and overall grade-point average for courses accepted for transfer by the University of Arkansas will be calculated and used to evaluate the completion of the pre-business requirements by students transferring courses from other institutions.

3. Unless exceptions are granted at the time of admission to the University of Arkansas, transfer courses accepted by the University will not be accepted by Walton College for degree purposes unless a grade of “C” or better has been earned in each of these courses. (See the Admission chapter.)

4. A transferred course cannot carry more degree hours than are available in a similar University of Arkansas course. For example, a four-hour principles of economics course transfers as three degree hours.

5. Business courses completed at the freshman or sophomore level at another institution will not count as equivalents of junior- or senior-level courses offered in Walton College (University of Arkansas), and no transfer credit shall be granted for any such course(s) in Walton College.

6. At least 50 percent of program requirements in business and economics must be taken in residence.

7. All courses within a student’s major and Business Strategy and Planning (WCOB 3016) must be taken in residence at the University of Arkansas, Fayetteville.

8. Junior- or senior-level core courses in business and economics may be transferred from a school accredited by AACSB International at another institution must either be repeated or validated by procedures specified and approved by the assistant dean for transfer purposes.

9. Junior- or senior-level core courses taken at a non-AACSB International-accredited, four-year institution must either be repeated or validated by procedures specified and approved by the assistant dean for undergraduate programs.

10. Junior- or senior-level electives in business and economics taken at a non-AACSB International-accredited, four-year institution may not be accepted and transferred for degree credit unless the course is approved by the student’s department chair and the associate dean.

11. Junior- or senior-level courses in business taken by correspondence at AACSB International or non-AACSB International institutions may not be accepted and transferred for degree credit unless the course is approved by the student’s department chair and the associate dean.

12. If a student takes courses with different names but with similar content at different institutions or in different colleges within the University of Arkansas, degree credit will be allowed for only one of the courses, for example, principles of economics and agricultural economics.

13. Courses taken at any higher education institution where the course content is remedial are not acceptable for degree credit.

14. The student should be prepared to submit course descriptions, syllabi, or other course-related information for transfer course work if there is any question as to whether Walton College will grant degree credit for such work.

15. Exceptions: All requests for, exceptions to, and variations from the rules, regulations, and requirements of Walton College and the University should be made in writing to the associate dean for academic affairs of Walton College or his designee. Consult the Undergraduate Programs Office in Walton College for these requests.
Course Loads

The normal course load in Walton College is 15 to 17 hours per semester (and six hours per summer term). Students with a 2.75 grade-point average the previous semester may take a maximum of 18 hours. Seniors may take 18 to 19 hours, if required for graduation, during their final semester. Students on academic warning are limited to a maximum course load of 12 hours. University regulations on the number of hours allowed per semester are found in the Orientation and Registration section of this catalog.

Foreign Language Concentration

An undergraduate B.S.B.A. degree-seeking student may elect to substitute 12 hours in a single upper-level foreign language for 12 to 15 of the 15 hours required in the junior-senior business elective block of courses for the degree requirements.

Double Major

A student may elect to obtain a double major by completing all required courses for two majors in Walton College (but not in two concentrations within a single major). The minimum hour requirement for a double major is 138 degree credit hours to include all requirements for both majors. If there are courses common to both majors, the department chairs involved will agree upon and specify additional requirements in lieu of the common courses. The junior/senior business elective block is reduced by three hours; however, choice of the junior/senior business electives is restricted to no more than three total hours from each department that offers the two majors. Students who have elected to substitute a foreign language course of study for junior/senior business electives must complete 12 hours of junior/senior language courses.

The student must notify the Undergraduate Programs Office in Walton College of intent to pursue a double major. All requirements for double majors must be completed prior to awarding of a degree.

Additional Bachelor’s Degrees

Students seeking a second bachelor’s degree must contact the Undergraduate Programs Office to ascertain specific requirements. Degree candidates must meet the university’s general graduation requirements. The university requires that 1) the student take a minimum of 30 semester hours over the requirements for the first degree, and 2) the 30 hours cover a minimum of 36 weeks in residency at the Fayetteville campus. Walton College also requires that the student complete all courses in the pre-business and business core and the major and any additional business requirements (if some of these have been completed on the first degree, they are waived). It is recommended that any additional courses needed to finish the University’s 30-hour requirement be junior or senior business electives. The second degree may be taken after the first is awarded, or both degrees may be awarded simultaneously after completion of all requirements for both.

College Graduation Requirements

1. University Requirements. Degree candidates must meet the following: the University’s general entrance requirements, number of credit hours required in residence, and the “requirements for graduation,” including the University Core American history, and English proficiency.

2. Hour Requirements. Degree candidates must satisfactorily complete the total number of semester hours specified for the curriculum in courses approved for one of the majors outlined in the succeeding pages. No less than 50 percent of the total credits must be in approved subjects other than business.

NOTE: Not all courses offered by the University will be accepted for degree credit by Walton College. Courses falling into this category are ANTH 0003, PHSC 0003, ARSC 0013, ENGL 0003, and MATH 0003. Developmental courses are defined as 1) any course so designated by the university, and 2) any lower-division course taken after a higher-level course is taken. Credit will not be given for duplicate course work.

3. Grade Requirements. Students must earn a grade of “C” or better in all pre-business core course requirements. Each student must have a 2.00 cumulative GPA in each of the following areas:
   a. All work completed at the University of Arkansas.
   b. All courses specifically designated for the major.
   c. All required business core courses and required economics courses.

4. General Education Course Work. A student’s general education course work must satisfy University Core Requirements, additional college/program course-specific requirements, as well as these two area requirements:
   a. Social Issues, Multicultural Environment, and Demographic Diversity.
   b. Micro and Macroeconomics. If a student has not satisfied these area requirements within the fine arts and/or social sciences areas of the university core, these area requirements must be satisfied through general education electives to allow students to complete degree requirements within the hours indicated above.

   Courses that satisfy these area requirements are listed below. NOTE that many of these courses will also satisfy University Core Requirements. Where possible, a student should select courses that satisfy both requirements.
   a. Social Issues, Multicultural Environment, and Demographic Diversity
      ANT 1023 Intro. to Cultural Anthropology (Univ. core)
      SOCI 2013 General Sociology (Univ. core)
      SOCI 2033 Social Problems (Univ. core)
      HIST 1003 Institutions and Ideas of Western Civilization (Univ. core) previously called WCIV 1003
      HIST 1013 Institutions and Ideas of Western Civilization II (Univ. core) previously called WCIV 1013
      GEOG 1123 Human Geography (Univ. core)
      Any Foreign Language (Univ. core, if 2000-level or above, general education elective otherwise)
   b. Micro/Macroeconomics
      ECON 2013 Principles of Macroeconomics (business core)
      ECON 2023 Principles of Microeconomics (business core)

5. Residency Requirements. The senior year’s curriculum (last 30 hours) in business must be taken in residence. In addition, the student’s major requirements (or the degree equivalent) and WC 3016 must be completed in residence. Specifically required junior or senior courses in business or economics must be taken at the University of Arkansas or at an AACSB-accredited school. At least 50 percent of the total hours in business and economics must be taken in residence.

6. Correspondence Course Rules. No more than 18 hours of course work taken by correspondence may apply toward a degree. These 18 hours may not include more than 12 hours of courses in economics or business.

7. Catalog/Curriculum Changes. Business is a dynamic profession, and the college and department curricula are updated continuously to keep pace with changes in the business world. Students entering under this catalog will be required to comply with such curricular changes to earn their degree. The total number of hours required for the degree, however, may not be increased, and all work completed in accordance with this catalog prior to the curriculum change will be applied toward the student’s degree requirements. Furthermore, courses incorporated into the curriculum at a level lower than the one the
student has completed are not required for that student unless there are specific prerequisites. Students entering under earlier catalogs are responsible for completing the graduation requirements as published in the catalog in effect when they entered the program. Students having interruptions of their academic programs that exceed two calendar years must complete the requirements published in the catalog in effect when they re-enter the program. Exceptions to the graduation requirements must be approved by the senior associate dean for academic programs and research or his designee and the appropriate department chair.

Graduation with Honors

The bachelor’s degree Summa Cum Laude (with highest honors), Magna Cum Laude (with high honors), or Cum Laude (with honors) may be conferred only upon those students who have successfully completed the Walton College Honors Program. Both Walton Scholars and Departmental Scholars are eligible for these designations. Students whose cumulative grade-point average place them in the top 10 percent of their graduating class but who have not completed the Honors Program are eligible for the designation “With Distinction” on their official transcript. Among those students completing the Honors Program, the designations Summa Cum Laude, Magna Cum Laude and Cum Laude shall be determined as follows:

- Top 20 percent of students completing the Honors Program: Summa Cum Laude
- Next 30 percent of students completing the Honors Program: Magna Cum Laude
- Next 50 percent of students completing the Honors Program: Cum Laude

No honors degree will be conferred upon a candidate who has not completed at least 50 percent of his or her degree work at the University of Arkansas or who, in the last four semesters of attendance, has a cumulative grade-point average of less than 3.00 or has received a “D” or “F” in any course in the last semester. Certain other requirements will be outlined on request by the dean of the College.

EIGHT-SEMESTER DEGREE PROGRAM POLICY

The Walton College offers an eight-semester degree-completion program. In each of the majors listed in this chapter, at least one eight-semester schedule is shown. Some majors offer several concentrations, and eight-semester programs are available for each of the concentrations in Section Two of the Catalog of Studies, online at http://catalogofstudies.uark.edu. See also page 42 in the Academic Regulations chapter for information about the University’s degree-completion program.

HONORS PROGRAM

Walton College honors program consists of two components: the four-year Walton Scholars Program and the Departmental Scholars Program. Students participating in the honors program will be eligible to graduate Cum Laude, Magna Cum Laude, or Summa Cum Laude. Students who do not participate in the honors program are eligible to graduate with distinction, a classification separate from the Cum Laude awards. Honors program students will receive priority for participation in the Arkansas Cooperative Education Program, SAKE, the portfolio management class, and financial support for study-abroad programs. They also have access to an honors study area.

Eligibility for the Honors Program

Admission will be offered to incoming freshmen with an ACT of 28 or higher and a high school GPA of 3.75. Students are required to maintain a cumulative GPA of 3.50 to remain in the program.

Requirements for Walton Scholars Program:
1. Complete 17 of 35 University Core hours in honors courses to be selected from the University Core or from 1000- or 2000-level WCOB core courses (excluding WCOB 1111H). MATH 2554 and MATH 2564 also count toward this requirement.
2. Demonstrate proficiency in a foreign language. This requires 0 to 12 hours of course work. Students may demonstrate proficiency by completing the 2013-level course in any foreign language.
3. Complete nine credit hours of honors courses in Walton College to include the following:
   a. One three-hour college colloquium. This is an interdisciplinary course with topics appealing to a wide range of majors. The subject matter changes annually and is targeted to juniors.
   b. One three-hour departmental colloquium: Each department will offer one departmental colloquium each year. It is designed for seniors.
   c. A three-hour thesis: The thesis is a major independent writing project and arises from an international study experience, an internship, or working with a professor on research.

Requirements for the Departmental Scholars program:
1. Complete nine hours of honors courses to be selected from the University Core or from 1000- or 2000-level WCOB core courses (excluding WCOB 1111H) and demonstrate proficiency in a foreign language by completing a 2003 course in any foreign language.
2. Complete nine hours of honors courses in Walton College to include:
   a. One three-hour college colloquium
   b. One three-hour departmental colloquium
   c. A three-hour thesis.

DEGREE REQUIREMENTS

Bachelor of Science in Business Administration (B.S.B.A.)

The Bachelor of Science in Business Administration degree is offered through an educational program in the business and organizational disciplines intended to prepare individuals to make sustained contributions to organizations and society in a global, diverse, and dynamic environment. To achieve this objective the curriculum focuses on developing an individual’s interdisciplinary problem-solving skills, interpersonal and communication skills, ability to adapt to changing technology, spirit of entrepreneurial innovation, and ethical and professional values. Walton College offers work in the following eight majors for the B.S.B.A. degree. Some majors have concentrations to allow additional specialization.

1. Accounting (ACCT)
2. Business Economics (BECO)
   a. Concentration I – Business Economics
   b. Concentration II – International Economics and Business
3. Finance (FINN)
   a. Concentration I – Banking
   b. Concentration II – Financial Management/Investment
   c. Concentration III – Insurance

University of Arkansas, Fayetteville
requirements for B.S.B.A. Degree

Students pursuing a degree in Walton College are classified as pre-business with an intended major until all pre-business requirements are fulfilled. To enroll in upper-division courses, a student must obtain at least a 2.50 (on a 4.00 scale) overall grade-point average in addition to the completion of all pre-business core courses (or equivalents), also with a minimum 2.50 GPA. Further, a student must earn a grade of “C” or better in each pre-business core course for admission into the major or for the graduation requirement.

A. University Core Requirements

- English Composition (two courses)**
- Finite Mathematics**
- American History or Government
- Laboratory Science (two courses with labs)
- Social Science (three courses)
- Fine Arts & Humanities (two courses)

B. Additional Requirements for Business Students

- Fundamentals of Communication**
- Survey of Calculus**
- Business Social Science (one of the following)
  - PSYC 2003 General Psychology
  - PSYC 3013 Social Psychology
  - PSYC 3023 Abnormal Psychology
  - PSYC 3103 Cognitive Psychology
  - PSYC 4063 Psychology of Personality
  - PSYC 4073 Psychology of Learning
  - PSYC 4123 Perception
  - SOCI 2013 General Sociology
  - SOCI 3033 American Minorities
  - SOCI 3223 Social Psychology
  - SOCI 3303 Social Data and Analysis
  - SOCI 4063 Organizations in Society
  - PLSC 2003 American National Government
  - PLSC 3103 Public Administration
  - PLSC 3113 Dynamics of Service Sector Organizations
  - PLSC 3243 The Judicial Process
  - PLSC 3803 International Organization
  - PLSC/SOCI 4053 Political Sociology
  - PLSC 4263 The Supreme Court and Civil Rights

C. Business Core Courses

Lower-Division Requirements
- WCOB 1120 Computer Competency Requirement**
- WCOB 1111 Freshman Business Connections**
- WCOB 1012 Legal Environment of Business**
- WCOB 1023 Business Foundations**
- WCOB 1033 Data Analysis and Interpretation**

Upper-Division Requirement
- WCOB 2023 Principles of Microeconomics**
- WCOB 2013 Principles of Macroeconomics**
- WCOB 2023 Prod. and Delivery of Goods and Services**
- WCOB 2033 Acquiring and Managing Human Capital**
- WCOB 2043 Acquiring and Managing Financial Resources**
- WCOB 2101 Marketing Management**
- WCOB 2201 Financial Management**
- WCOB 2301 Business Law**
- WCOB 2401 Business Strategy and Planning**
- WCOB 2501 Business Finance**
- WCOB 2601 Business Ethics**
- WCOB 2701 Business Information Systems**
- WCOB 2801 Business Operations Management**
- WCOB 2901 Business Policy and Planning**
- WCOB 3016 Business Strategy and Planning

D. Major Requirements

- E. Business Electives
- F. General Education Electives

(A total of 16 hours of general education electives are required for the Bachelor of Science in Business Administration (B.S.B.A.). General education electives must be non-business courses and may include no more than six hours of PEAC or DEAC courses. Students may utilize general education electives to complete a minor outside the Walton College. In addition, these electives may fulfill requirements for Social Issues, Multicultural Environment, and Demographic Diversity if not otherwise completed in the Business Social Science requirement or by completing University Core).

TOTAL REQUIRED FOR B.S.B.A. DEGREE 126

(B.A. is less than the sum of the categories because some courses count in two categories.)

**Pre-Business requirement: These 42 hours must be completed with a GPA of 2.50, an overall GPA of 2.5, and a grade of “C” or better in each course before a student is allowed to take upper-division business courses.

In addition to the core courses, each student will complete the required major courses, junior- senior-level business electives, and electives specified by each major.

Each student must have a 2.00 cumulative grade-point average in each of the following areas: all work completed at this university, all courses specifically designated for the major, and all required Walton College business and economics courses. Students must earn a grade of “C” or better in each of the pre-business core courses.

Bachelor of Science in International Business Degree (B.S.I.B.)

The Bachelor of Science in International Business degree is intended for students who wish to learn more about the international aspects of business. It provides preparation for a broad range of careers in business, including accounting, management, marketing, economics, information systems, finance, and transportation and logistics. This degree is also well suited for students wishing to continue their studies in law, international affairs, or graduate education in business and economics.

This degree requires completion of the University Core and Walton College Core courses, as well as course work in international business, a single foreign language and an area of study related to that language. In addition, students must select a concentration in one of the following areas: accounting, business economics, information systems, finance, general business, management, marketing, or transportation and logistics.

Students pursuing a degree in the Sam M. Walton College of Business are classified as pre-business with an intended concentration until all pre-business requirements are fulfilled. For admission into the intended concentration, a student must obtain at least a 2.50 (on a 4.00 scale) overall grade-point average, in addition to the completion of all pre-business core courses listed elsewhere in the catalog (or equivalents), also with a minimum 2.50 grade-point average. Further, a student must earn a grade of “C” or better in each of the pre-business core courses for admission into the major or for the graduation requirement.

University of Arkansas, Fayetteville
### Graduation Requirements for the B.S.I.B. Degree
Each student must have a 2.00 cumulative grade-point average in each of the following areas: all work completed at this university, all courses in the business core, and all designated international business courses/functional concentration/foreign language courses. In addition, students must earn a grade of “C” or better in each of the pre-business core courses.

### Course Requirements for the B.S.I.B. Degree

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<td>Business Social Science (one of the following)</td>
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<td>D. International Business and Collateral Course</td>
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<tr>
<td>ECON 4633 International Trade</td>
<td>3</td>
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<tr>
<td>ECON 4643 International Macroeconomics and Finance</td>
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</tr>
<tr>
<td>Select 9 hours from the following:</td>
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<tr>
<td>FINN 3703 International Finance</td>
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<tr>
<td>MGMT 4583 International Mgmt.</td>
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<tr>
<td>MKTG 4633 Global Marketing</td>
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<tr>
<td>TLOG 4643 International Transportation and Logistics</td>
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<tr>
<td>ECON 4653 Global Competition and Strategy</td>
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<tr>
<td>(Other courses may fulfill this requirement if approved by the department chair)</td>
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<tr>
<td>ECON 3853 Emerging Markets</td>
<td></td>
</tr>
<tr>
<td>ECON 3843 Economic Development, World Bank, and Multilateral Finance</td>
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<tr>
<td>ECON 3933 The Japanese Economic System</td>
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<tr>
<td>(Other courses may fulfill this requirement if approved by the department chair)</td>
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</tbody>
</table>

### E. Business Concentration
Students must complete one of the following business concentrations:

**Accounting**
- ACCT 3013 Accounting View of Economic Events | 3
- ACCT 3533 Accounting Technology | 3
- ACCT 3613 Managerial Uses of Accounting Information | 3
- ACCT 3723 Intermediate Accounting I | 3
- Plus three hour JR/SR accounting course | 3
- Plus six hours JR/SR interdisciplinary electives | 6

**Business Economics**
- ECON 3033 Microeconomic Theory | 3
- ECON 3133 Macroeconomic Theory | 3
- ECON 4333 Economics of Organizations | 3
- ECON 4743 Introduction to Econometrics | 3
- ECON 4653 Global Competition and Strategy | 3
- Plus six hours JR/SR interdisciplinary electives | 6

**Information Systems**
- ISYS 2263 Intro. to Information Systems Development | 3
- ISYS 3293 Systems Analysis and Design | 3
- ISYS 3393 Business Application Development in the Visual Basic Environment | 3
- ISYS 4283 Centralized Data Systems | 3
- Plus three hour JR/SR information systems course | 3
- Plus six hours JR/SR interdisciplinary electives | 6

**Finance**
- FINN 3053 Financial Markets and Institutions | 3
- FINN 3703 International Finance | 3
- FINN 3063 Principles of Investments, or | 3
- FINN 3603 Corporate Finance | 3
- FINN 4233 Advanced Corporate Finance, or | 3
- FINN 4133 Advanced Investments | 3
- Plus three hour JR/SR finance course | 3
- Plus six hours JR/SR interdisciplinary electives | 6

**General Business**
- Fifteen hours of 3000/4000-level courses in Walton College; no more than nine hours in a single academic area | 15
- Plus six hours JR/SR interdisciplinary elec-tives | 6

**Management**
- MGMT 4243 Ethics and Corporate Responsibility | 3
- MGMT 4583 International Mgmt. | 3
- Plus nine hours JR/SR management courses | 9
- Plus six hours JR/SR interdisciplinary electives | 6

**Marketing**
- MKTG 3633 Marketing Research | 3
- MKTG 3553 Consumer Behavior | 3
- MKTG 4533 Marketing Mgmt. | 3
- MKTG 4633 Global Marketing | 3
- Plus three hour JR/SR marketing course | 3
- Plus six hours JR/SR interdisciplinary electives | 6
Transportation and Logistics
TLOG 3443 Principles of Transportation 3
TLOG 3613 Business Logistics 3
TLOG 4643 International Transportation and Logistics 3
Plus six hours of JR/SR transportation courses 6
Plus six hours JR/SR interdisciplinary electives 6

F. Foreign Language Requirements 12

Students whose native language is English or whose native language is not taught at the University of Arkansas must complete 12 hours of university course work in a single foreign language — six hours of intermediate language and six hours of upper-division course work in communications and business language, or equivalent. Students who, on the basis of prior knowledge of language, omit one or both courses in the intermediate language sequence — FLAN 2003, FLAN 2013 — may receive degree credit for omitted courses if they validate their higher placement by passing the business language course (or equivalent) with a grade of “C” or above. Students with no previous foreign language training or only rudimentary knowledge of a foreign language will be required to complete up to six hours of elementary language — FLAN 1003, FLAN 2003 — in addition to the 12 hours of language specified above. No degree credit will be given for language courses listed under EUST in the University catalog.

Students may select one of the following language tracks:
Arabic – ARAB 2003, ARAB 2013, ARAB 3003, ARAB 3013 or equivalent
Spanish – SPAN 2003, SPAN 2013, SPAN 3003, and any other upper division SPAN course
French – FREN 2003, FREN 2013, FREN 4333, FREN 3033 or FREN 3003
German – GERM 2003, GERM 2013, GERM 3003, and GERM 4333
Italian – ITAL 2003, ITAL 2013, ITAL 3003, and ITAL 3013
Japanese – JAPN 2003, JAPN 2013, JAPN 3003, and JAPN 3013
Spanish – SPAN 2003, SPAN 2013, SPAN 3003, and SPAN 4333
Chinese – CHIN 2003, CHIN 2013, CHIN 3033, and any other upper division CHIN course

Students whose native language is not English but is taught at the University of Arkansas must select a third language from the list above or substitute six hours of upper-division English language courses (i.e., speech, writing, or U.S. literature), to be selected with the consent of an adviser and department chair. Those students whose native language is not taught at the University of Arkansas will normally be required to select a third language.

G. Area Studies Requirements 9

For students taking a foreign language, nine hours of upper-division course work in the J. William Fulbright College of Arts and Sciences are required. Domestic students can satisfy this requirement in one of three ways:
1) any upper division foreign language course,
2) minor in a foreign language, and/or
3) select upper division courses related to the foreign language to include:
   Arabic – any upper division course for Middle Eastern Studies (MEST) to include MEST 4003, 4003H or additional courses listed under MEST in the university catalog
   Chinese/Japanese/Asian Studies – any upper division course for Asian Studies (AIST)
   French – any upper division course for EUST
   German – any upper division course for EUST
   Italian – any upper division course for EUST
   Spanish – any upper division course for Latin American Studies (LAST) or European Studies (EUST) to include LAST 4003, LAST 4003H, or LAST 470V or additional courses listed under LAST in the university catalog, or EUST 399VH, EUST 4003, EUST 4003H, EUST 470V, or EUST 470VH or additional courses listed under EUST in the university catalog.

International students may satisfy this requirement in one of two ways:
1) For students who choose to take a third language, area studies requirements are the same as those for domestic students.
2) For students who choose to take six hours of upper division English to satisfy their language requirement, nine hours of upper division course work in the J. William Fulbright College of Arts and Sciences pertaining to the United States to include any upper division course for American Studies (AMST) listed in the University catalog.

H. International Experience Requirement

At a minimum, a domestic student must complete a study abroad program approved by the Walton College of at least four semesters and six credit hours, or work abroad, or work with the international division of a domestic company as part of their program. Students are strongly encouraged, but not required, to seek job experience in a company located in a country related to their foreign language requirement.

TOTAL DEGREE REQUIREMENTS 125
(Total is more than the sum of the categories because some courses count for multiple requirements.)

Clarifying Notes on Degree Requirements

1. Courses that are required in either Walton College or the international business core and also are required in one of the business concentrations cannot be used to satisfy both requirements. For example, students who take FINN 3703 to satisfy the finance concentration requirements cannot also use it to satisfy the international business requirements.

2. Students who select ECON 2013 and ECON 2023 to partially satisfy the social science bloc and FLAN 2003 to partially satisfy the fine arts and humanities bloc of the University Core Requirements can complete the degree with 125 hours. Students selecting other courses to satisfy these requirements will have longer programs.

Bachelor of Science in International Business
Eight-Semester Degree Program:

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The International Business degree program has eight concentrations:

• Accounting
• Business Economics
• Finance
• General Business
• Information Systems
• Management
• Marketing
• Transportation and Logistics

The first four semesters of each of concentration are exactly the same and are listed immediately below. The final four semesters of each concentration follow after that.

In addition to the coursework below, students must complete an International Experience Requirement and the Advanced Composition Requirement.

University of Arkansas, Fayetteville
or gain exemption from the latter. Courses in BOLD must be taken in the semester designated. Courses in ITALICS may be taken in varied sequences as long as other designated requirements for these courses are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations noted below are preferred.

## B.S.I.B. First Four Semesters

### Fall Semester Year 1
- ENGL 1013 Composition I** – University Core
- MATH 2053 Finite Math – University Core
- COMM 1313 Fundamentals of Communication
- WCOB 1111 Freshman Business Connections
- WCOB 1012 Legal Environment of Business *
- WCOB 1120 Computer Competency Requirement
- FLAN 2003 Intermediate Foreign Language I
- **Total Semester Hours: 15**

### Spring Semester Year 1
- ENGL 1023 Composition II ** – University Core
- WCOB 1023 Business Foundations
- WCOB 1033 Data Analysis and Interpretation
- ECON 2023 Microeconomics – University Core
- FLAN 2013 Intermediate Foreign Language II
- **Total Semester Hours: 15**

### Fall Semester Year 2
- MATH 2043 Survey of Calculus **
- ECON 2013 Macroeconomics ** – University Core
- Select TWO of the following:
  - WCOB 2013 Markets and Consumers
  - WCOB 2035 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
  - U.S. History or Political Science – University Core
  - Upper division FLAN course
- **Total Semester Hours: 18**

### Spring Semester Year 2
- Fine Art/Humanities – University Core
- Natural Science – University Core
- Upper division FLAN course
- Select TWO of the following not completed in previous semester:
  - WCOB 2013 Markets and Consumers
  - WCOB 2035 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- **Total Semester Hours: 16**

**ALL pre-business requirements should be met by end of season.**

## B.S.I.B. Business Economics Final Four Semester

### Fall Semester Year 3
- WCOB 3016 Business Strategy and Planning
- Business Social Science
- ECON 3133 Macroeconomic Theory
- International Business and Collateral Elective
- **Total Semester Hours: 15**

### Spring Semester Year 3
- ECON 4565 Global Competition and Strategy
- ECON elective
- ECON 4633 International Trade Policy
- Area Studies Course – see page 211 in catalog
- Social Science – University Core
- **Total Semester Hours: 15**

### Fall Semester Year 4
- ECON 4333 Economics of Organizations
- ECON 4643 International Macroeconomics and Finance
- International Business and Collateral Elective
- **Total Semester Hours: 15**

### Spring Semester Year 4
- ECON 4743 Introduction to Econometrics
- Area Studies Course
- International Business and Collateral Elective
- Junior Senior Business Electives
- **Total Hours: 125**

## B.S.I.B. Finance Final Four Semesters

### Fall Semester Year 3
- WCOB 3016 Business Strategy and Planning
- Business Social Science
- FINN 3053 Financial Markets and Institutions
- **FINN 3013 Financial Analysis and Valuation
- Total Semester Hours: 15**

### Spring Semester Year 3
- FINN 3063 Principles of Investments or FINN 3603 Corporate Finance
- FINN 3703 International Finance
- ECON 4633 International Trade Policy
- Area Studies Course – see page 211 in catalog
- Social Science – University Core
- **Total Semester Hours: 15**
### Fall Semester Year 4
- 3 FINN 4133 Advanced Investments or FINN 4233 Advanced Corporate Finance
- 3 ECON 4643 International Macroeconomics and Finance
- 3 International Business and Collateral Elective
- 3 Area Studies Course
- 4 Natural Science – University Core
- 16 Semester Hours

### Spring Semester Year 4
- 3 FINN elective
- 3 Area Studies Course
- 3 International Business and Collateral Elective
- 6 Junior Senior Business Electives
- 15 Semester Hours
- 125 Total Hours

### B.S.I.B. General Business Final Four Semesters

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
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<tr>
<td>Fall Semester 3</td>
<td>6 WCOB 3016 Business Strategy and Planning</td>
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<td>3 Business Social Science</td>
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<td>3 Junior Senior Business Elective</td>
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<td>3 International Business and Collateral Elective</td>
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<td>15 Semester Hours</td>
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<tr>
<td>Spring Semester 3</td>
<td>6 Junior Senior Business Electives</td>
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<tr>
<td></td>
<td>3 ECON 4633 International Trade Policy</td>
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<td></td>
<td>3 Area Studies Course – see page 211 in catalog</td>
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<td>3 Social Science – University Core</td>
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<tr>
<td>Fall Semester 4</td>
<td>3 Junior Senior Business Elective</td>
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<tr>
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<td>3 ECON 4643 International Macroeconomics and Finance</td>
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<td>3 International Business and Collateral Elective</td>
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<td>3 Area Studies Course</td>
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<td>4 Natural Science – University Core</td>
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<td>16 Semester Hours</td>
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<td>Spring Semester 4</td>
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### B.S.I.B. Information Systems

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<td>3 Business Social Science</td>
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<td>3 ISYS 2263 Introduction to Information Systems</td>
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<td>3 ISYS 3293 System Analysis and Design</td>
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<td>3 ISYS 3393 Business Application Dev. In the Visual Basic Environment</td>
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<td>3 Area Studies Course – see page 211 in catalog</td>
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<td></td>
<td>3 MGMT 4243 Ethics and Corporate Responsibility</td>
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### B.S.I.B. Management Final Four Semesters

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<tr>
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<td>3 MGMT 4243 Ethics and Corporate Responsibility</td>
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<td>Spring Semester 3</td>
<td>3 MGMT elective</td>
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<tr>
<td></td>
<td>3 MGMT 4243 Ethics and Corporate Responsibility</td>
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### B.S.I.B. Marketing Final Four Semesters

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B.S.I.B. Transportation and Logistics Final Four Semesters

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<td>** Semester Hours **</td>
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<td>** Total Hours **</td>
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* Must be taken prior to fall semester of sophomore year
** Must be taken prior to fall semester of junior year
*** Must be taken prior to fall semester of senior year
**** No more than 9 hours of junior senior business electives can be taken in a single academic period

MINORS IN THE J. WILLIAM FULBRIGHT COLLEGE OF ARTS AND SCIENCES

Students in Walton College may pursue an academic minor in the J. William Fulbright College of Arts and Sciences. Academic minors usually consist of 15 to 18 hours of course work. The available minors and course requirements are specified in the Fulbright College section of this catalog. Students must notify the Undergraduate Programs Office in Walton College of their intention to pursue a minor as early as possible. Walton College will certify that the requirements of the minor have been satisfied by graduation and, with the assistance of the Fulbright College, will advise students on the requirements to complete a minor. The minor will be designated on the student’s transcript.

Courses that are part of the University Core Requirements or the additional General Education Requirements or any other non-business course that is part of a student’s course of study may also be counted for credit in a minor. For example, ANTH 1023 Introduction to Cultural Anthropology, is a concentration in the B.S.B.A. social science bloc and can also be used to satisfy the requirements of the anthropology minor. Other courses in a minor can be counted as general education electives. Walton College economics majors in the business economics concentration or the international economics and business concentration may not obtain a Fulbright College minor in economics.

Business Administration Minors for Non-Business Students

To facilitate students outside Walton College in obtaining knowledge that will assist them in making sustained contributions to organizations and society in a global, diverse, and dynamic environment, the Walton College offers a business minor. The minor requires completion of 20 to 21 required hours of study (including equivalencies) with at least 50 percent of the courses applied toward the minor taken in residence. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

All students seeking a business minor are required to complete the Walton College computer competency requirement (WCOB 1120) and the following courses:

- ECON 2143 Basic Economics Theory and Practice
- WCOB 1023 Business Foundations
- WCOB 1033 Data Analysis and Interpretation or equivalent

In addition, students must select and complete one of the following concentrations:

**Concentration 1 – General Business**
Select 12 hours from the following courses (at least 6 hours must be at the 3000 or 4000 level).
- WCOB 1012 Legal Environment of Business
- WCOB 2013 Markets and Consumers
- WCOB 2033 Acquiring and Managing Human Capital
- WCOB 2043 Acquiring and Managing Financial Resources

Plus any other 3000- or 4000-level Walton College course

**Concentration 2 – Accounting**
ACCT 3013 Accounting View of Economic Events
ACCT 3613 Managerial Uses of Accounting Info
Plus an additional six hours selected from the following:
- ACCT 4021 Accounting Technology
- ACCT 3723 Intermediate Accounting I
- ACCT 3843 Fundamentals of Taxation

**Concentration 3 – Business Economics**
ECON 4333 Economics of Organizations
Plus an additional nine hours of 3000- or 4000-level business economics courses.

**Concentration 4 – Enterprise Resource Planning**
WCOB 2013 Markets and Consumers
WCOB 2043 Acquiring and Managing Financial Resources
WCOB 4213 ERP Fundamentals
Plus an additional six hours from the following:
- ISYS 4223 Configuration and Implementation
- ISYS 4553 Introduction to Enterprise Server Systems
Select 12 hours from the following:

**Concentration 6 – Finance**
- WCOB 2043 Acquiring and Managing Financial Resources
- Plus an additional nine hours of 3000-4000 level finance courses

**Concentration 7 – Information Systems**
- WCOB 4223 Configuration and Implementation
- Plus an additional three hours from the following:
  - ISYS 3393 Business Applications and Visual Basic
  - ISYS 3293 System Analysis and Design

**Concentration 8 – International Business**
- ECON 3843 Economic Development, World Bank, and Multilateral Finance
- ECON 3853 Emerging Markets
- ECON 3933 The Japanese Economic System
- ECON 4633 International Trade
- ECON 4643 International Macroeconomics and Finance
- ECON 4653 Global Competition and Strategy
- ECON 468V International Economics and Business Seminar
- FINN 3703 International Finance
- MGMT 4583 International Management
- MKTG 4633 Global Marketing
- TLOG 4643 International Transportation and Logistics

**Concentration 9 – Management**
- MGMT 4243, Ethics and Corporate Responsibility
- Plus an additional nine hours of 3000/4000 level management courses (may include WCOB 2033, Acquiring and Managing Human Capital OR MGMT 3563, Organizational Behavior)

**Concentration 10 – Marketing**
- MKTG 3433 Introduction to Marketing Strategy
- Plus an additional nine hours selected from the following:
  - MKTG 3533 Promotional Strategy
  - MKTG 4343 Selling and Sales Mgmt.
  - MKTG 3633 Marketing Research
  - MKTG 3553 Consumer Behavior
  - MKTG 4633 Global Marketing
  - MKTG 4433 Retail Strategy
  - MKTG 4443 Retail Buying and Merchandise
- TLOG 3613 Business Logistics

**Concentration 11 – Transportation and Logistics**
- TLOG 3443 Principles of Transportation
- TLOG 3613 Business Logistics
- Plus an additional six hours selected from the following:
  - TLOG 3623 Purchasing and Inventory Systems
  - TLOG 4633 Transportation Carrier Management
  - TLOG 4643 International Transportation and Logistics
  - TLOG 4653 Transportation and Logistics Strategy

In addition to the above course requirements, non-business, degree-seeking students working toward a minor should note the following:

1. Students who elect to obtain a business minor must provide written notice of their intent to the dean’s office of the college in which they are receiving a degree. This notice and all requirements for the business minor must be completed prior to the awarding of the student’s undergraduate degree.
2. Business minor students must complete all 1000- and 2000-level courses required for the business minor and be a junior- or senior-level student to enroll in 3000- or 4000-level business courses.
3. All specific course prerequisites must be met. Although business minor students are not required to satisfy the entire pre-business core, they must complete the required courses and any other prerequisite course specified prior to enrolling in a 3000/4000-level course.
4. ECON 2143 will substitute for ECON 2013/2023 for prerequisite purposes. In addition, students who take both ECON 2013 (Macroeconomics) and ECON 2023 (Microeconomics) will satisfy the economics requirements of the minor.
5. Business minor students are ineligible to take WCOB 3016 Business Strategy and Planning.
6. All equivalencies must be approved by the senior associate dean for academic programs and research or his designee.

**GRADUATE STUDIES**

The University of Arkansas offers the following advanced degrees in business: Master of Accountancy, Master of Business Administration, Master of Arts in Economics, Master of Information Systems, Doctor of Philosophy in Business Administration, and Doctor of Philosophy in Economics.

For further information about these programs and requirements for admission, see the Graduate School Catalog or write to the assistant director of marketing and recruiting, Graduate School of Business, 475 WJWH.

**ACCREDITATIONS**

The college has been a member of and accredited by AACSB International - The Association to Advance Collegiate Schools of Business since 1931. The accounting program was accredited separately in 1986 at both the bachelor’s and master’s level. The master’s degree in the business administration program was approved in 1963. Accreditation by and membership in AACSB signifies commitment by the college to the goals of promoting and actualizing the highest standards of business education.

**ACCOUNTING (ACCT)**

Vernon Richardson  
Department Chair and S. Robson Chair in Accounting, 401 WCOB, 479-575-4051
- Walter B. Cole Chair in Accounting and Professor Bouwman
- Doris M. Cook Chair in Accounting and Professor Callahan
- Garrison/Wilson Chair in Accounting and Professor Finn
- Doyle Z. and Maynette Derr Williams Chair in Professional Accounting and Professor Pincus
- S. Robson Walton Chair in Accounting and Professor Richardson
- Associate Professors Norwood, Peters
- Assistant Professors and BKD Lectureship in Accounting Henderson
- Assistant Professor Sanchez (J.M.)
- Clinical Associate Professor Leflar
- Instructors Greenhaw, Sanchez (D.), Shook

The mission of the department of accounting is to cultivate an environment of educational excellence. We do so by pursuing the following endeavors:
The department of accounting offers an undergraduate degree program in accounting and graduate programs at both the master’s and doctoral levels. The department’s programs are accredited by the AACSB – The International Association for Management Education, which ensures quality and promotes excellence and continuous improvement in undergraduate and graduate education.

A major in accounting is preparation for success in the business world. Every business needs accounting help, whether it is the largest retail company in the world, a small family-owned enterprise, an agency for the homeless, or a musical group touring the country. The accounting major provides an excellent foundation for a variety of careers.

For example, the professional public accountant provides auditing and accounting services to client business and non-business organizations in a variety of industries. A management accountant works for a particular organization in its finance and operations areas or becomes part of the management team. Some accountants are employed by non-profit organizations such as the American Cancer Society, state and local governments, or government agencies like the FBI. Other accounting graduates are self-employed in a variety of professions or businesses, and some continue in graduate school to prepare for teaching careers.

Professional examinations, such as the Certified Public Accountant (CPA) or Certified Management Accountant (CMA) examinations, are governed by the organizations that administer the exam. Students should see the accounting department upon enrollment in the University of Arkansas for information relative to the professional exams.

The education objective at the undergraduate level is to provide an environment in which students learn skills necessary to become professional accountants, including information development and distribution; knowledge of accounting, auditing, and tax; knowledge of business and society; communication skills; analytical and decision-making skills; leadership; and professionalism. In addition, the accounting department offers courses in Business Law.

**Accounting Major Requirements**

<table>
<thead>
<tr>
<th>Course Requirements in the Major</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 3013 Accounting View of Economic Events</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3533 Accounting Technology</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3613 Managerial Uses of Accounting Info</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3723 Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3843 Fundamentals of Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4673 Product, Project and Service Costing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4753 Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 4963 Operational Auditing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Collateral Requirement:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISYS 2263 Introduction to Information Systems Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Junior- senior-level electives within Walton College**

Maximum of 27 hours of ACCT courses in department (core, major, elective). More than 27 hours allowed if the extra courses are part of interdisciplinary minor or collateral track.

**Total General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I ** - University Core</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2053 Finite Math – University Core</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1111 Freshman Business Connections</td>
<td>1</td>
</tr>
<tr>
<td>WCOB 1012 Legal Environment of Business *</td>
<td>2</td>
</tr>
<tr>
<td>WCOB 1120 Computer Competency Requirement</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History or Political Science – University Core</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Hours**

15

**Fall Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCOB 1023 Business Foundations</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1033 Data Analysis and Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2023 Microeconomics – University Core</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science – University Core</td>
<td>4</td>
</tr>
</tbody>
</table>

**Spring Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1023 Composition II ** - University Core</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1023 Business Foundations</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1013 Composition I ** - University Core</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History or Political Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fall Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2043 Survey of Calculus **</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2013 Macroeconomics ** - University Core</td>
<td>3</td>
</tr>
<tr>
<td>Select TWO of the following:</td>
<td>6</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td>3</td>
</tr>
<tr>
<td>Social Science – University Core</td>
<td>3</td>
</tr>
<tr>
<td>Fine Art/Humanities – University Core</td>
<td>3</td>
</tr>
</tbody>
</table>

**Spring Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Art/Humanities – University Core</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science – University Core</td>
<td>4</td>
</tr>
<tr>
<td>Business Social Science</td>
<td>3</td>
</tr>
<tr>
<td>Select TWO of the following not completed in previous semester:</td>
<td>6</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td>3</td>
</tr>
</tbody>
</table>

**ALL pre-business requirements should be met by end of term**
Accounting Minor for Business Students:

The Department of Accounting offers a minor for Walton College students desiring more knowledge of accounting to assist them in their business careers. The minor requires the completion of 15 specific hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include the following courses:

- ACCT 3013 Accounting View of Economic Events
- ACCT 3613 Managerial Uses of Accounting
- ACCT 3843 Fundamentals of Taxation
- ACCT 3723 Intermediate Accounting I
- ACCT 4673 Production Project and Service Costing
- ACCT 4753 Intermediate Accounting II
- ACCT 4963 Operational Auditing
- Junior Senior Business Electives
- General Education Electives

15 Semester hours

Spring Semester Year 4

3 Select ONE of the following:
   - ACCT 4673 Production Project and Service Costing
   - ACCT 4753 Intermediate Accounting II
   - ACCT 4963 Operational Auditing
- Junior Senior Business Electives
- General Education Electives

15 Semester hours

126 Total hours

* Must be taken prior to fall semester of sophomore year
** Must be taken prior to fall semester of junior year
*** Must be taken prior to fall semester of senior year

ECONOMICS (ECON)

Joseph Ziegler
Department Chair, 402 WCOB, 479-575-ECON (3266)
- Margaret Gerig and R.S. Martin, Jr. Chair in Business and Professor Farmer
- Lewis E. Epley Jr. Professorship and Professor Ferrier
- Professors Britton, Curington, Dixon, Gay, Horowitz, Ziegler
- Associate Professors Deck, Kali
- Assistant Professors Mendez, Reyes
- Clinical Associate Professor Stapp
- Instructor Johnson

The department of economics offers two concentrations within the business economics major:

1) business economics
2) international economics and business.

The concentration in business economics is intended for those students who are interested primarily in business, but at the same time have a desire to understand the more advanced tools of economic analysis. Such a background is excellent preparation for careers in corporate research and planning, as well as careers with government and regulatory agencies, for graduate study in business and economics, and for law school. Students who want to pursue an advanced degree in business economics can, with appropriate planning, complete a master's degree at the University of Arkansas within 12 months after receiving a B.S.B.A. degree. Please see the economics department chair for more information.

The international economics and business concentration is intended for students who wish to learn more about the international aspects of economics and business. It provides preparation for a broad range of careers in business, including management, marketing, and finance.

It is strongly recommended that economics majors who plan to continue their studies at the graduate level take two semesters of calculus (MATH 2554 and MATH 2564) and linear algebra (MATH 3083). These courses will substitute for the math courses required within Walton College core (MATH 2043 and MATH 2053).

Business Economics Concentration

The major in Business Economics requires 24 hours of major and collateral courses in the discipline as well as satisfying the other requirements for the B.S.B.A. degree. A maximum of 27 hours is allowed in a WCOB major or discipline field of study (i.e., core, major, electives) unless the extra courses are part of an interdisciplinary minor or collateral track. See an adviser for selection of courses.

The courses required for the business economics concentration include those required in Walton College and Fulbright College. In addition, 15 hours of specified courses (listed below) are required:

Complete the requirements for a B.S.B.A. degree as listed on page 209.

Total General Education

60 hours

Walton College Core Requirements (See page 209)

33 hours

Course Requirements in the concentration

ECON 3033 Microeconomic Theory
- 3 hours
ECON 3133 Macroeconomic Theory
- 3 hours
ECON 4333 Economics of Organizations
- 3 hours
ECON 4743 Intro. to Econometrics, or ECON 4753 Forecasting
- 3 hours
Nine hours of ECON 3000/4000
- 9 hours
Collateral Course (may be selected from MATH 2103, MATH 2564, MATH 2574, AGEC 3413, AGEC 4413,
GEOG 3353, and any upper division course in ACCT, FINN, ISYS, MGMT, MKTG, MATH, and STAT)  

**Junior-senior-level electives within Walton College** 15  
Maximum of 27 hours of ECON courses in department (core, major, elective). More than 27 hours allowed if the extra courses are part of interdisciplinary minor or collateral track.  

**Total Walton College Requirements** 60  
**Total Degree Requirements** 126

### International Economics and Business Concentration

The major in International Economics requires 21 hours of major and collateral courses in the discipline as well as satisfying the other requirements for the B.S.B.A. degree. A maximum of 27 hours is allowed in a WCOB major or discipline field of study (i.e., core, major, electives) unless the extra course is part of an interdisciplinary minor or collateral track. See an adviser for selection of courses. The courses required for the international economics and business concentration include those required in Walton College and Fulbright College. In addition, 21 hours of economics and business courses, nine hours of upper-division courses in the Fulbright College, and six hours of a single foreign language at the intermediate level or above, and three hours at the upper-division level in business communications, or equivalent, in the same foreign language are specified.

Complete the requirements for a B.S.B.A. degree as listed on page 209.

<table>
<thead>
<tr>
<th>University Core</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional University Core</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Walton College Core Requirements (See page 209)</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Requirements in the concentration</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3033 Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 3133 Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4633 International Trade</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4643 International Macroeconomics and Finance</td>
<td>3</td>
</tr>
<tr>
<td>International Business and ECON electives</td>
<td>6</td>
</tr>
<tr>
<td>Select two classes (six hours) from the following:</td>
<td></td>
</tr>
<tr>
<td>FINN 3703 International Finance</td>
<td></td>
</tr>
<tr>
<td>MGMT 4583 International Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 4633 Global Marketing</td>
<td></td>
</tr>
<tr>
<td>TLOG 4643 International Transportation and Logistics</td>
<td></td>
</tr>
<tr>
<td>ECON 4653 Global Competition and Strategy</td>
<td></td>
</tr>
<tr>
<td>ECON 3853 Emerging Markets</td>
<td></td>
</tr>
<tr>
<td>ECON 3843 Economic Development, World Bank, and Multilateral Finance</td>
<td></td>
</tr>
<tr>
<td>ECON 3933 The Japanese Economic System</td>
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<tr>
<td>Other courses may fulfill this requirement as approved by the economics department chair</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Foreign Language Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Students whose native language is English or whose native language is not taught at the University of Arkansas must complete nine hours of university course work in a single foreign language — six hours of intermediate language and three hours of upper-division course work in communications and business language, or equivalent. Students who, on the basis of prior knowledge of language, omit one or both courses in the intermediate language sequence — FLAN 203, FLAN 213 — may receive degree credit for omitted courses if they validate their higher placement by passing the business language course (or equivalent) with a grade of “C” or above. Students with no previous foreign language training or only rudimentary knowledge of a foreign language will be required to complete up to six hours of elementary language — FLAN 1003, FLAN 203 — in addition to the nine hours of language specified above.

Students may select one of the following language tracks:
- Arabic — ARAB 2013, ARAB 3003, ARAB 3013 or equivalent
- Chinese — CHIN 2003, CHIN 2013, CHIN 3033, and any other upper division CHIN
- French — FREN 2003, FREN 2013, FREN 4333, FREN 3033 or FREN 3003
- German — GERM 2003, GERM 213, GERM 3003, and GERM 3433
- Italian — ITAL 2003, ITAL 213, ITAL 3003, and ITAL 3013
- Japanese — JAPN 2003, JAPN 2013, JAPN 3003, and JAPN 3013
- Spanish — SPAN 2003, SPAN 2013, SPAN 3003, and SPAN 4333

Students whose native language is not English but is taught at the University of Arkansas must select a third language from the list above, or substitute six hours of upper-division English language courses (i.e., speech, writing, or U.S. literature), to be selected with the consent of the department chair. Those students whose native language is not taught at the University of Arkansas will normally be required to select a third language.

### Area Studies Requirements

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
</tr>
</tbody>
</table>

For students taking a foreign language, nine hours of upper-division course work in the J. William Fulbright College of Arts and Sciences are required. Domestic students can satisfy this requirement in one of three ways:

1. any upper division foreign language course,  
2. minor in a foreign language, and/or  
3. select upper division courses related to the foreign language to include:

   Arabic — any upper division course for Middle Eastern Studies (MEST) to include MEST 4003, MEST 4003H or additional courses listed under MEST in the university catalog  
   Chinese/Japanese/Asian Studies — any upper division course for Asian Studies (AIST)  
   French — any upper division course for EUST  
   German — any upper division course for EUST  
   Italian — any upper division course for EUST  
   Spanish — any upper division course for Latin American Studies (LAST) or European Studies (EUST) to include LAST 4003, LAST 4003H, or LAST 470V or additional courses listed under LAST in the university catalog, or EUST 399VH, EUST 4003, EUST 4003H, EUST 470V, or additional courses listed under EUST in the University catalog.

International students may satisfy this requirement in one of two ways:  
1) For students who choose to take a third language, area studies requirements are the same as those for domestic students.  
2) For students who choose to take six hours of upper division English to satisfy their language requirement, 9 hours of upper division course work in the J. William Fulbright College of Arts and Sciences pertaining to the United States to include any upper division course for American Studies (AMST) listed in the university catalog.

### Economics Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page
42 in the Academic Regulations chapter for university requirements of the program. The Economics major has two concentrations: Business Economics, and International Economics and Business. The eight-semester plans for both are listed below.

Courses in BOLD must be taken in the designated semester. Courses in ITALIC may be taken in varied sequences as long as other designated requirements for these course are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations below are preferred.

### Business Economics Concentration

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I ** – University Core</td>
<td></td>
</tr>
<tr>
<td>3 MATH 2053 Finite Math – University Core</td>
<td></td>
</tr>
<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>1 WCOB 1111 Freshman Business Connections</td>
<td></td>
</tr>
<tr>
<td>2 WCOB 1012 Legal Environment of Business *</td>
<td></td>
</tr>
<tr>
<td>0 WCOB 1120 Computer Competency Requirement</td>
<td></td>
</tr>
<tr>
<td>3 U.S. History or Political Science – University Core</td>
<td>15 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Composition II ** - University Core</td>
<td></td>
</tr>
<tr>
<td>3 WCOB 1023 Business Foundations</td>
<td></td>
</tr>
<tr>
<td>3 WCOB 1033 Data Analysis and Interpretation</td>
<td></td>
</tr>
<tr>
<td>3 ECON 2023 Microeconomics – University Core</td>
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<tr>
<td>4 Natural Science – University Core</td>
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<tr>
<td>16 Semester Hours</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 MATH 2043 Survey of Calculus **</td>
<td></td>
</tr>
<tr>
<td>3 ECON 2013 Macroeconomics ** - University Core</td>
<td></td>
</tr>
<tr>
<td>6 Select TWO of the following:</td>
<td></td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td></td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
<td></td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
<td></td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td></td>
</tr>
<tr>
<td>3 Social Science – University Core</td>
<td></td>
</tr>
<tr>
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<tr>
<td>WCOB 2013 Markets and Consumers</td>
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<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
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<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
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<tr>
<td>16 Semester Hours</td>
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ALL pre-business requirements should be met by end of term

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<tr>
<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3 ECON 3033 Microeconomic Theory</td>
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<td>6 WCOB 3016 Business Strategy and Planning</td>
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<td>3 ENGL 2003 OR English 2013 OR General Education Elective IF Advanced Composition Requirement has already been met ***</td>
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### International Economics and Business Concentration

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<td>3 MATH 2053 Finite Math – University Core</td>
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<td>3 COMM 1313 Fundamentals of Communication</td>
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<tr>
<td>1 WCOB 1111 Freshman Business Connections</td>
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<tr>
<td>2 WCOB 1012 Legal Environment of Business *</td>
<td></td>
</tr>
<tr>
<td>0 WCOB 1120 Computer Competency Requirement</td>
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<tr>
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<td>3 ECON 2023 Microeconomics – University Core</td>
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<td>4 PLAN 2013 Intermediate Foreign Language II</td>
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<tbody>
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<tr>
<td>3 ECON 2013 Macroeconomics ** - University Core</td>
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<td>6 Select TWO of the following:</td>
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<tr>
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<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td></td>
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<tr>
<td>3 Social Science – University Core</td>
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<td>3 U.S. History or Political Science</td>
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</table>
The Department of Economics offers a minor for Walton College students desiring more knowledge of economics to assist them in their business careers. The minor requires completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include the following courses:

- **ECON 2013 Principles of Macroeconomics**
- **ECON 2023 Principles of Microeconomics**
- Plus nine hours of upper division course work in economics.

Students who desire to earn an Economics minor must notify the Walton College Undergraduate Programs Office of their intent to pursue a minor. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

### Finance Major Requirements with Concentrations

Complete the requirements for a B.S.B.A. degree as listed on page 209.

**Total General Education**

- 60 Hours

**Walton College Core Requirements** (See page 209)

- 33 Hours

**Course Requirements in the concentration**

- 24 Hours

**Concentration I: Banking**

- 3 Hours

**Concentration II: Financial Management/Investment**

- 3 Hours

**Concentration III: Insurance**

- 3 Hours

**Finance Major**

Students who elect to major in finance can choose from one of five concentrations: banking; financial management/investment; insurance; real estate, and personal financial management. This choice should reflect the student's primary career focus and electives should be used to complement the coursework in the chosen concentration. Careers in finance that are analytically oriented will generally require proficiency in accounting, economics, and quantitative methods. In contrast, careers in finance that are sales or management oriented will generally require marketing and management skills. Finance majors are strongly encouraged to consult with departmental faculty advisers and/or the department chair in developing their curriculum.
### Finance Eight-Semester Degree Program:

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The Finance major has five concentrations:

- Banking
- Insurance
- Financial Management and Investment
- Personal Financial Management
- Real Estate

The eight-semester plan for the each concentration is listed below. Courses in BOLD must be taken in the designated semester. Courses in ITALIC may be taken in varied sequences as long as other designated requirements for these courses are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations below are preferred.

#### Banking Concentration

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course(s)</th>
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<tr>
<td>Fall Year 1</td>
<td>ENGL 1013 Composition I ** – University Core</td>
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<td>WCOB 1111 Freshman Business Connections</td>
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<td>Fall Year 1</td>
<td>WCOB 1012 Legal Environment of Business</td>
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<tr>
<td>Fall Year 1</td>
<td>WCOB 1120 Computer Competency Requirement</td>
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<tr>
<td>Fall Year 1</td>
<td>U.S. History or Political Science – University Core</td>
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<tr>
<td>Spring Year 1</td>
<td>WCOB 1023 Business Foundations</td>
</tr>
<tr>
<td>Spring Year 1</td>
<td>WCOB 1033 Data Analysis and Interpretation</td>
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<td>ECON 2023 Microeconomics – University Core</td>
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<td>Spring Year 1</td>
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</tr>
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</tr>
<tr>
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<tr>
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<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<tr>
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<tr>
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<td>Fall Year 3</td>
<td>WCOB 3012 Financial Modeling</td>
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<td>WCOB 3016 Business Strategy and Planning</td>
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<td>General Education Electives</td>
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<td>WCOB 3133 Commercial Banking</td>
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### Financial Management and Investment Concentration

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3 MATH 2053 Finite Math – University Core  
3 COMM 1313 Fundamentals of Communication  
1 WCOB 1111 Freshman Business Connections  
2 WCOB 1012 Legal Environment of Business*  
0 WCOB 1120 Computer Competency Requirement  
3 U.S. History or Political Science – University Core |
| **Spring Semester Year 1** | 3 ENGL 1023 Composition II** – University Core  
3 WCOB 1023 Business Foundations  
3 WCOB 1033 Data Analysis and Interpretation  
4 ECON 2023 Microeconomics – University Core |
| **Fall Semester Year 2** | 3 MATH 2043 Survey of Calculus**  
3 ECON 2013 Macroeconomics** - University Core  
6 Select TWO of the following:  
WCOB 2013 Markets and Consumers  
WCOB 2023 Production and Delivery of Goods and Services  
WCOB 2033 Acquiring and Managing Human Capital  
WCOB 2043 Acquiring and Managing Financial Resources  
3 Social Science – University Core  
3 Fine Art/Humanities – University Core |
| **Spring Semester Year 2** | 3 Fine Art/Humanities – University Core  
3 Business Social Science  
4 Natural Science – University Core  
6 Select TWO of the following not completed in previous semester:  
WCOB 2013 Markets and Consumers  
WCOB 2023 Production and Delivery of Goods and Services  
WCOB 2033 Acquiring and Managing Human Capital  
WCOB 2043 Acquiring and Managing Financial Resources |

ALL pre-business requirements should be met by end of term

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<tr>
<th>Semester</th>
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| **Fall Semester Year 3** | 3 FINN 3013 Financial Analysis and Valuation  
3 FINN 3103 Financial Modeling  
6 WCOB 3016 Business Strategy and Planning  
3 Junior Senior Business Elective |
| **Spring Semester Year 3** | 3 FINN 3053 Financial Markets and Institutions  
6 Junior Senior Business Electives  
3 Finance or Interdisciplinary Elective  
3 ENGL 2003 OR ENGL 2013 OR General Education Elective IF Advanced Composition Requirement has already been met*** |

15 Semester hours

### Insurance Concentration

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3 MATH 2053 Finite Math – University Core  
3 COMM 1313 Fundamentals of Communication  
1 WCOB 1111 Freshman Business Connections  
2 WCOB 1012 Legal Environment of Business*  
0 WCOB 1120 Computer Competency Requirement  
3 U.S. History or Political Science – University Core |
| **Spring Semester Year 1** | 3 ENGL 1023 Composition II** – University Core  
3 WCOB 1023 Business Foundations  
3 WCOB 1033 Data Analysis and Interpretation  
4 ECON 2023 Microeconomics – University Core |
| **Fall Semester Year 2** | 3 MATH 2043 Survey of Calculus**  
3 ECON 2013 Macroeconomics** - University Core  
6 Select TWO of the following:  
WCOB 2013 Markets and Consumers  
WCOB 2023 Production and Delivery of Goods and Services  
WCOB 2033 Acquiring and Managing Human Capital  
WCOB 2043 Acquiring and Managing Financial Resources  
3 Social Science – University Core  
3 Fine Art/Humanities – University Core |
| **Spring Semester Year 2** | 3 Fine Art/Humanities – University Core  
3 Business Social Science  
4 Natural Science – University Core  
6 Select TWO of the following not completed in previous semester:  
WCOB 2013 Markets and Consumers  
WCOB 2023 Production and Delivery of Goods and Services  
WCOB 2033 Acquiring and Managing Human Capital  
WCOB 2043 Acquiring and Managing Financial Resources |

16 Semester Hours

<table>
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<tr>
<th>Semester</th>
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| **Fall Semester Year 3** | 3 FINN 3013 Financial Analysis and Valuation  
3 FINN 3623 Risk Management  
6 WCOB 3016 Business Strategy and Planning  
4 General Education Electives |
| **Spring Semester Year 3** | 3 FINN 3053 Financial Markets and Institutions  
3 FINN 4833 Property and Casualty Insurance I  
6 Junior Senior Business Electives |

15 Semester hours
### Personal Financial Management Concentration

**Fall Semester Year 1**
- 3 ENGL 1013 Composition I ** - University Core
- 3 MATH 2053 Finite Math – University Core
- 3 COMM 1313 Fundamentals of Communication
- 1 WCOB 1111 Freshman Business Connections
- 2 WCOB 1012 Legal Environment of Business *
- 0 WCOB 1120 Computer Competency Requirement
- 3 U.S. History or Political Science – University Core
- 15 Semester Hours

**Spring Semester Year 2**
- 3 MATH 2043 Survey of Calculus **
- 3 ECON 2013 Macroeconomics ** - University Core
- 6 Select TWO of the following:
  - WCOB 2013 Markets and Consumers
  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- 3 Social Science – University Core
- 3 Fine Art/Humanities – University Core
- 18 Semester Hours

**Fall Semester Year 2**
- 3 Fine Art/Humanities – University Core
- 4 Natural Science – University Core
- 3 Business Social Science
- 6 Select TWO of the following not completed in previous semester:
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  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- 16 Semester Hours

**Spring Semester Year 2**
- ALL pre-business requirements should be met by end of term

**Fall Semester Year 3**
- 3 ACCT 3013 Accounting View of Economic Events (Jr Sr Business elective)
- 3 FINN 3003 Personal Financial Management
- 3 FINN 3013 Financial Analysis and Valuation
- 6 WCOB 3016 Business Strategy and Planning
- 15 Semester Hours

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### Real Estate Concentration

**Fall Semester Year 1**
- 3 ENGL 1013 Composition I ** - University Core
- 3 MATH 2053 Finite Math – University Core
- 3 COMM 1313 Fundamentals of Communication
- 1 WCOB 1111 Freshman Business Connections
- 2 WCOB 1012 Legal Environment of Business *
- 0 WCOB 1120 Computer Competency Requirement
- 3 U.S. History or Political Science – University Core
- 15 Semester Hours

**Spring Semester Year 1**
- 3 ENGL 1023 Composition II ** - University Core
- 3 WCOB 1023 Business Foundations
- 3 WCOB 1033 Data Analysis and Interpretation
- 4 ECON 2023 Microeconomics – University Core
- 4 Natural Science – University Core
- 16 Semester Hours

**Fall Semester Year 2**
- 3 MATH 2043 Survey of Calculus **
- 3 ECON 2013 Macroeconomics ** - University Core
- 6 Select TWO of the following:
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  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
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- 3 Social Science – University Core
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- 4 Natural Science – University Core
- 3 Business Social Science
- 6 Select TWO of the following not completed in previous semester:
  - WCOB 2013 Markets and Consumers
  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- 16 Semester Hours

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University of Arkansas, Fayetteville
### Finance Minors for Business Students

The Department of Finance offers two minor options for Walton College students in the areas of Banking/Financial Management/Investment and Insurance/Real Estate. The minors require completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include the following options and courses:

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th>Hours</th>
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<tbody>
<tr>
<td>3 FINN 3013 Financial Analysis and Valuation</td>
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<tr>
<td>3 FINN 3933 Real Estate Principles</td>
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<tr>
<td>6 WCOB 3016 Business Strategy and Planning</td>
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<tr>
<td>4 General Education Electives</td>
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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>3 FINN 3053 Financial Markets and Institutions</td>
<td></td>
</tr>
<tr>
<td>3 FINN 4433 Real Estate Finance</td>
<td></td>
</tr>
<tr>
<td>6 Junior Senior Business Electives</td>
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</tr>
<tr>
<td>3 ENGL 2003 OR ENGL 2013 OR General Education Elective IF Advanced Composition Requirement has already been met***</td>
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<td>3 FINN 4413 Real Estate Investment and Appraisal</td>
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<td>3 General Education Elective</td>
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<td>3 Junior Senior Business Elective</td>
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<td>6 General Education Electives</td>
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<td>15 Semester hours</td>
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</tr>
<tr>
<td>126 Semester hours</td>
<td></td>
</tr>
</tbody>
</table>

* Must be taken prior to fall semester of sophomore year
** Must be taken prior to fall semester of junior year
*** Must be taken prior to fall semester of senior year
**** If student selects Option 2 (FINN 4143 and 4153) under the Financial Management concentration, they must take ACCT 3013 as a junior senior business elective in Fall of their junior year, ACCT 3723 as a junior senior business elective in Spring of their junior year, and FINN 3063 as either a junior senior business elective or a finance/interdisciplinary elective in Spring of their junior year. If student selects Option 3 (FINN 4163 and 4173) they must take FINN 3063 as either a junior senior business elective or a finance/interdisciplinary elective in their junior year.

### 2. Insurance/Real Estate

Choose any five classes (fifteen hours) of the following courses:

- FINN 3003 Personal Financial Management 3
- FINN 3623 Risk Management 3
- FINN 4733 Life and Health Insurance I 3
- FINN 4833 Property and Casualty Insurance I 3
- FINN 3933 Real Estate Principles 3
- FINN 4413 Real Estate Investment and Appraisal 3
- FINN 4433 Real Estate Finance 3

**Total 15**

Students who desire to earn a Finance minor must notify the Walton College Undergraduate Programs Office of their intent to pursue a minor. All requirements for a minor must be completed prior to the awarding of the student's undergraduate degree. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor. SEE PAGE 349 FOR FINANCE (FINN) COURSES

---

### INFORMATION SYSTEMS (ISYS)

Moez Limayem  
Department Chair, 204 WCOB, 479-575-4500  
- David D. Glass Chair in Information Systems and Distinguished Professor Davis (E)  
- George and Boyce Billingsley Endowed Chair in Information Systems and Professor Venkatesh  
- M.D. Matthews Chair in Information Systems and Professor Cronan  
- Edwin and Karlee Bradberry Endowed Chair and Professor Hardgrave  
- University Professors Douglas, Jones (T.W.)  
- Professor Limayem  
- Associate Professors Aloysius, O'Leary-Kelly (S.), Riemenschneider  
- Assistant Professors Maruping, Robert  
- Professors Bristow, McDaniel  
- Executives in Residence Davis (C.), Mullins  

The curriculum in information systems is designed to prepare graduates for careers in solving business problems with applications of computer technology. Graduates with a degree in Information Systems are sought by hundreds of companies for many different types of positions, such as programmer, analyst, database administrator, and web developer, among others. Graduates are now programming, analyzing and designing systems, consulting, teaching, and solving business problems across the country.

### Information Systems Major Requirements

The major in Information Systems requires 24 hours of major and collateral courses in the discipline as well as satisfying the other requirements for the B.S.B.A. degree. A maximum of 27 hours is allowed in a WCOB major or discipline field of study (i.e., core, major, electives) unless the extra courses are part of an interdisciplinary minor. The Information Systems department encourages its majors to seek an interdisciplinary minor. See an adviser for selection of courses.

**NOTE:** Course requirements in the Information Systems major total 24 credit hours. Because of prerequisites, students should allow two full years (24 months) to complete this coursework. Prerequisites are strictly enforced.

Complete the requirements for a B.S.B.A. degree as listed on page 209. Programming I (CSCE 1023/1021) is recommended as a general education elective.
Information Systems Eight-Semester Degree Program:

Students wishing to follow the eight-semester degree plan for Information Systems should see page 42 in the Academic Regulations chapter for university requirements of the program.

Courses in BOLD must be taken in the designated semester. Courses in ITALIC may be taken in varied sequences as long as other designated requirements of the program.

Students who desire to earn an Information Systems minor must notify the Department of Information Systems. The Department of Information Systems offers a minor for Walton College students desiring more knowledge of information systems to assist them in their careers. The minor requires completion of 15 hours of study with all of the courses applied toward the minor in residence. The 15 hours include the following courses:

- ISYS 2263 Intro. to IS Development
- ISYS 3253 IT Infrastructure
- ISYS 3293 System Analysis and Design
- ISYS 3393 Business Applications in Visual Basic
- ISYS 4283 Centralized Data Systems
- ISYS 4293 Business Intelligence
- ISYS 4363 Business Application Systems Development
- ISYS 4373 Object Oriented Programming

Junior- senior-level electives or interdisciplinary minor within Walton College

Maximum of 27 hours of ISYS courses in department (core, major, elective). More than 27 hours allowed if the extra courses are part of interdisciplinary minor or collateral track.

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<thead>
<tr>
<th>Total General Education</th>
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<tr>
<td>Walton College Core Requirements (See page 209)</td>
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<td>ISYS 3393 Business Applications in Visual Basic</td>
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<td>ISYS 4283 Centralized Data Systems</td>
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<td>ISYS 4293 Business Intelligence</td>
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<td>ISYS 4363 Business Application Systems Development</td>
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<td>ISYS 4373 Object Oriented Programming</td>
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<td>Total Walton College Requirements</td>
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<tr>
<td>Total Degree Requirements</td>
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</table>

Fall Semester Year 1

| 3 ENGL 1013 Composition I ** - University Core |
| 3 MATH 2053 Finite Math – University Core |
| 3 COMM 1313 Fundamentals of Communication |
| 1 WCOB 1111 Freshman Business Connections |
| 2 WCOB 1012 Legal Environment of Business * |
| 0 WCOB 1120 Computer Competency Requirement |
| 3 U.S. History or Political Science – University Core |
| 15 Semester hours |

Spring Semester Year 1

| 3 ENGL 1023 Composition II ** - University Core |
| 3 WCOB 1023 Business Foundations |
| 3 WCOB 1033 Data Analysis and Interpretation |
| 3 ECON 2023 Microeconomics – University Core |
| 4 Natural Science – University Core |
| 16 Semester hours |

Fall Semester Year 2

| 3 MATH 2043 Survey of Calculus ** |
| 3 ECON 2013 Macroeconomics ** - University Core |
| 6 Select TWO of the following: |
| WCOB 2013 Markets and Consumers |
| WCOB 2023 Production and Delivery of Goods and Services |
| WCOB 2033 Acquiring and Managing Human Capital |
| WCOB 2043 Acquiring and Managing Financial Resources |
| 3 Fine Arts/Humanities – University Core |
| 3 Social Science – University Core |
| 18 Semester hours |

Spring Semester Year 2

| 3 Fine Arts/Humanities – University Core |
| 4 Natural Science – University Core |
| 3 ISYS 2263 Intro to Information Systems Development |
| 6 Select TWO of the following not completed in previous semester: |

Fall Semester Year 3

| 3 ISYS 3293 Systems Analysis and Design |
| 3 ISYS 3393 Business Application Dev. in the Visual Basic Environment |
| 6 WCOB 5016 Business Strategy and Planning |
| 3 Business Social Science |
| 15 Semester hours |

Spring Semester Year 3

| 3 ISYS 3253 Information Technology Infrastructure |
| 3 ISYS 4373 Object Oriented Programming for Business Applications |
| 7 General Education Electives |
| 6 Junior Senior Business Electives |
| 16 Semester hours |

Fall Semester Year 4

| 3 ISYS 4283 Centralized Database Systems |
| 7 General Education Electives |
| 6 Junior Senior Business Electives |
| 16 Semester hours |

Spring Semester Year 4

| 3 ISYS 4293 Business Intelligence |
| 3 ISYS 4363 Business Application System Development |
| 6 General Education Electives |
| 3 Junior Senior Business Elective |
| 15 Semester hours |
| 126 Total hours |

ALL pre-business requirements should be met by end of term.

* Must be taken prior to fall semester of sophomore year
** Must be taken prior to fall semester of junior year
*** Must be taken prior to fall semester of senior year

Information Systems Minor for Business Students:

The Department of Information Systems offers a minor for Walton College students desiring more knowledge of information systems to assist them in their careers. The minor requires completion of 15 hours of study with all of the courses applied toward the minor in residence. The 15 hours include the following courses:

- ISYS 2263 Intro. to Information Systems Development
- ISYS 3253 IT Infrastructure
- ISYS 3293 System Analysis and Design
- ISYS 3393 Business Applications in Visual Basic

Plus one of the following:

- ISYS 3373 Object Oriented Programming
- ISYS 4283 Centralized Data Systems
- ISYS 4293 Business Intelligence
- WCOB 4213 ERP Fundamentals

Students who desire to earn an Information Systems minor must notify the Walton College Undergraduate Programs Office of intent to pursue a minor. All requirements for the minor must be completed prior to the awarding of the student’s undergraduate degree. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

SEE PAGE 363 FOR INFORMATION SYSTEMS (ISYS) COURSES
MANAGEMENT (MGMT)

Anne O'Leary-Kelly
Department Chair and William R. and Cacilia Howard Chair in Management, 402 WCOB, 479-575-4566
• Charles C. Fichtner Chair in Management and Professor Ganster
• Raymond F. Orr Chair and Professor Gupta
• William R. and Cacilia Howard Chair and Professor O'Leary-Kelly (A.)
• University Professor White
• Professors Delery, Johnson
• Cecil and Gwendolyn Cupp Applied Professorship in Entrepreneurship and Associate Professor Reeves
• Associate Professors Anand, Ellstrand
• Assistant Professors Nag, Rosen
• Instructor Newman

Management is the force responsible for directing organizations toward goals or objectives. Therefore, the management curriculum focuses on the nature and capabilities of human and other resources, as well as how the manager plans, organizes, staffs, coordinates, and evaluates those resources in an organization and its environment. The study of management prepares men and women for positions of leadership in profit and nonprofit organizations of all sizes. Management majors gain insight and skill needed for careers as professional managers or as self-employed entrepreneurs. These skills include technical knowledge, communicative capacity, human understanding, and conceptual and problem-solving ability. Two majors are offered in the management department: management and general business. Both majors are described below.

Management Major

Students may choose from among three concentrations: Human Resource Management, Small Business and Entrepreneurship, and Organizational Leadership. All management majors must complete MGMT 4243, Ethics and Corporate Responsibility. An additional 21 hours of credit are required for students majoring in management. Six of these credit hours are specified in the concentration. Beyond this, students can choose from specified management and non-management courses in order to complete the requirements for the major.

The Human Resource Management concentration is designed to prepare students for careers in human resource-related occupations. Among issues and areas addressed are management-employee relations, quality of work life, compensation and other reward systems, organizational staffing, and training and development. The Human Resource Management track emphasizes the importance of integrating individual goals and organizational objectives.

The Small Business and Entrepreneurship concentration is suggested for students who are interested in starting and/or operating a small business or independent company after graduation. The Small Business and Entrepreneurship focus provides excellent preparation for students wishing to obtain a highly integrated view of business operations. The Organizational Leadership concentration prepares new students for leadership positions within organizations. Among the topics explored are employee motivation, how to manage power and influence within organizations, developing effective teams, managing diversity, organizational transformation and change, and globalization.

Management Major Requirements

The major in management requires 24 hours of major and collateral courses in the discipline as well as satisfying the other requirements for the B.S.B.A. degree. A maximum of 27 hours is allowed in a WCOB major or discipline field of study (i.e., core, major, electives) unless the extra courses are part of an interdisciplinary minor or collateral track. See an adviser for selection of courses.

Complete the requirements for a B.S.B.A. degree as listed on page 209.

Total General Education 60
College Core Requirements 33
Courses Required 24

Concentration I: Human Resources Management

MGMT 4943 Organizational Staffing 3
MGMT 4953 Organizational Rewards/Compensation 3
MGMT 4243 Ethics and Corporate Responsibility 3
Select at least two classes (six hours) from the following courses:

MGMT 4253 Leadership 3
MGMT 4263 Organizational Change and Development 3
MGMT 3933 Entrepreneurship/New Venture 3
MGMT 4103 Special Topics 3
MGMT 4433 Small Enterprise Management 3
MGMT 4583 International Management 3
MGMT 4993 Entrepreneurship Practicum 3
Select up to three classes (nine hours) from the following courses:

ECON 3533 Labor Economics 3
ECON 4333 Managerial Economics 3
ACCT 3613 Managerial Uses of Accounting Information 3
ISYS 2263 Intro to Information Systems Dev. 3
ISYS 3373 End User Computing 3
ISYS 4263 Information Technology Strategy 3
MKTG 3553 Consumer Behavior 3
MKTG 3633 Marketing Research 3
MKTG 4533 Marketing Management 3

Concentration II: Organizational Leadership

MGMT 4253 Leadership 3
MGMT 4263 Organizational Change and Development 3
MGMT 4243 Ethics and Corporate Responsibility 3
Select at least two classes (six hours) from the following courses:

MGMT 3933 Entrepreneurship/New Venture 3
MGMT 4103 Special Topics 3
MGMT 4433 Small Enterprise Management 3
MGMT 4583 International Management 3
MGMT 4993 Organizational Staffing 3
MGMT 4953 Organizational Rewards/Compensation 3
Select up to three classes (nine hours) from the following courses:

ACCT 3613 Managerial Uses of Accounting Information 3
ACCT 3013 Views of Economic Events 3
ECON 3533 Labor Economics 3
ECON 4333 Managerial Economics 3
ECON 4643 International Macroeconomics and Finance 3
ECON 4653 Global Competition and Strategy 3
FINN 3603 Intermediate Financial Management 3
FINN 3703 International Finance 3
ISYS 2263 Intro to Information Systems Dev. 3
ISYS 4263 Information Technology Strategy 3
ISYS 4933 Global Information Technology Management 3
MKTG 4533 Marketing Management 3
MKTG 4633 Global Marketing 3
TLOG 3613 Business Logistics 3
TLOG 4643 International Transportation and Logistics 3
Management Eight-Semester Degree Program:

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The Management major has three concentrations:

- Human Resources Management
- Organizational Leadership
- Small Business and Entrepreneurship

The eight-semester plan for each concentration is listed below. Courses in **BOLD** must be taken in the designated semester. Courses in **ITALIC** may be taken in varied sequences as long as other designated requirements for these courses are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations below are preferred.

### Human Resources Management Concentration

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<tr>
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### Organizational Leadership Concentration

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<td>COMM 1313 Fundamentals of Communication</td>
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<tr>
<td>2</td>
<td>WCOB 1012 Legal Environment of Business *</td>
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<td>4</td>
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<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
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<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<td>MGMT 4243 Ethics and Corporate Responsibility</td>
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### Small Business and Entrepreneurship Concentration

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<td>WCOB 1012 Legal Environment of Business *</td>
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<td>WCOB 1120 Computer Competency Requirement</td>
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<td>MATH 2043 Survey of Calculus **</td>
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<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
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<td>Fine Art/Humanities – University Core</td>
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<td>6</td>
<td>Select TWO of the following not completed in previous semester:</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td></td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
<td></td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
<td></td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td></td>
</tr>
<tr>
<td><strong>Fall Semester Year 3</strong></td>
<td>15 Semester hours</td>
</tr>
<tr>
<td>3</td>
<td>MGMT 4243 Ethics and Corporate Responsibility</td>
</tr>
<tr>
<td>3</td>
<td>MGMT 4253 Organizational Leadership</td>
</tr>
<tr>
<td>6</td>
<td>WCOB 3016 Business Strategy and Planning</td>
</tr>
<tr>
<td>3</td>
<td>Junior Senior Business Elective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Year</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spring Semester Year 3</strong></td>
<td>15 Semester hours</td>
</tr>
<tr>
<td>3</td>
<td>MGMT 4263 Organizational Change and Development</td>
</tr>
<tr>
<td>6</td>
<td>MGMT or Collateral electives</td>
</tr>
<tr>
<td>3</td>
<td>Junior Senior Business Elective</td>
</tr>
<tr>
<td>3</td>
<td>ENGL 2003 or ENGL 2013 or General Education Elective IF Advanced Composition Requirement has already been met ***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Year</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester Year 4</strong></td>
<td>15 Semester hours</td>
</tr>
<tr>
<td>6</td>
<td>MGMT electives</td>
</tr>
<tr>
<td>3</td>
<td>Junior Senior Business Elective</td>
</tr>
<tr>
<td>7</td>
<td>General Education Electives</td>
</tr>
</tbody>
</table>

Additional courses and requirements should be met by end of term.
Management Minor for Business Students:
The Department of Management offers a minor for students desiring more knowledge of management to assist them in their careers. The minor requires completion of 15 hours of study with all of the courses applied toward the minor in residence. The 15 hours include the following courses:

- MGMT 4243 Ethics and Corporate Responsibility
- MGMT 4263 Organizational Change and Development
- MGMT 4433 Small Enterprise Management
- MGMT 4583 International Management
- MGMT 4943 Organizational Staffing
- MGMT 4953 Organizational Staffing and Compensation
- MGMT 4993 Entrepreneurship Practicum

Students who desire to earn a Management minor must notify the Walton College Undergraduate Programs Office of intent to pursue the minor. All requirements for the minor must be completed prior to the awarding of a student’s undergraduate degree. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

General Business Major
General Business is the broadest major in Walton College. This program provides the student exposure to all facets of the business process. Maximum flexibility is retained by the student. At the same time, careful use of general and junior/senior business electives allows the student to concentrate additional course work in one or more selected functional areas.

General Business Major Requirements
Complete the requirements for a B.S.B.A. degree as listed on page 209.

- Total General Education: 60 hours
- Walton College Core Requirements: 33 hours (See page 209)
- Course Requirements in the Major: 24 hours

Sequencing of courses will be determined by choices made.

Group 1
- MGMT 3933 Entrepreneurship/New Venture: 3 hours
- MGMT 4243 Ethics and Corporate Responsibility: 3 hours
- MGMT 4253 Leadership: 3 hours
- MGMT 4263 Organizational Change and Development: 3 hours
- MGMT 4433 Small Enterprise Development: 3 hours
- MGMT 4943 Organizational Staffing: 3 hours
- MGMT 4953 Organizational Staffing: 3 hours

Group 2
- MGMT 4103 Special Topics: 3 hours
- MGMT 4243 Ethics and Corporate Responsibility: 3 hours
- MGMT 4253 Leadership: 3 hours
- MGMT 4263 Organizational Change and Development: 3 hours
- MGMT 4433 Small Enterprise Development: 3 hours
- MGMT 4943 Organizational Staffing: 3 hours
- MGMT 4953 Organizational Staffing: 3 hours

- Must be taken prior to fall semester of sophomore year
- **Must be taken prior to fall semester of junior year
- ***Must be taken prior to fall semester of senior year

General Business Eight-Semester Degree Program:
Students wishing to follow the eight-semester degree plan for General Business should see page 42 in the Academic Regulations chapter for university requirements of the program.

Courses in BOLD must be taken in the designated semester. Courses in ITALIC may be taken in varied sequences as long as other designated requirements for these courses are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations below are preferred.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I **  – University Core</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2053 Finite Math – University Core</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1111 Freshman Business Connections</td>
<td>1</td>
</tr>
<tr>
<td>WCOB 1012 Legal Environment of Business *</td>
<td>2</td>
</tr>
<tr>
<td>WCOB 1120 Computer Competency Requirement</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History or Political Science – University Core</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15 Semester Hours</td>
</tr>
</tbody>
</table>

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1023 Composition II **  – University Core</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1023 Business Foundations</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1033 Data Analysis and Interpretation</td>
<td>3</td>
</tr>
</tbody>
</table>
ECON 2023 Microeconomics – University Core

Natural Science – University Core

16 Semester Hours

** Fall Semester Year 2 **

3 MATH 2403 Survey of Calculus **
3 ECON 2013 Microeconomics ** - University Core
6 Select TWO of the following:
  - WCOB 2013 Markets and Consumers
  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
3 Social Science – University Core
3 Fine Art/Humanities – University Core
18 Semester Hours

** Spring Semester Year 2 **

3 Fine Art/Humanities – University Core
4 Natural Science – University Core
3 Business Social Science
6 Select TWO of the following not completed in previous semester:
  - WCOB 2013 Markets and Consumers
  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
18 Semester Hours

ALL pre-business requirements should be met by end of term

** Fall Semester Year 3 **

3 Group 1 course (see below)
3 Group 2 course (see below)
6 WCOB 3016 Business Strategy and Planning
3 MKTG 3433 (Junior Senior Business Elective)
15 Semester hours

** Spring Semester Year 3 **

3 Group 3 course (see below)
3 Group 6 course (see below)
6 Junior Senior Business Electives
3 ENGL 3003 or ENGL 3013 or General Education Elective IF Advanced Composition Requirement has already been met***
15 Semester hours

** Fall Semester Year 4 **

3 Group 5 course (see below)
6 Junior Senior Business Electives
7 General Education Electives
15 Semester hours

** Spring Semester Year 4 **

3 Group 4 course (see below)
6 General Education Electives
6 Junior Senior Business Elective
15 Semester hours

126 Total hours

* Must be taken prior to fall semester of sophomore year
** Must be taken prior to fall semester of junior year
*** Must be taken prior to fall semester of senior year

** Group 2 **

ACCT 3013 Accounting View of Economic Events
ACCT 3533 Accounting Technology
ACCT 3723 Intermediate Accounting I

** Group 3 **

WCOB 4213 ERP Fundamentals
ISYS 2263 Introduction to Information Systems Development
ISYS 3373 End User Computing
ISYS 4263 IT Strategy
ISYS 4933 Global IT

** Group 4 **

ECON 3033 Microeconomics Theory
ECON 3133 Macroeconomics Theory
ECON 3533 Labor Economics
ECON 4333 Economics of Organizations
ECON 4633 International Trade
ECON 4643 International Macroeconomics and Finance
ECON 4653 Global Competition and Strategy

** Group 5 **

FINN 3053 Financial Markets/Institutions
FINN 3063 Principles of Investments
FINN 3623 Risk Management
FINN 4233 Advanced Corporate Finance

** Group 6 **

MKTG 4233 Integrated Marketing Communication
MKTG 3553 Consumer Behavior
MKTG 4433 Retail Strategy

SEE PAGE 374 FOR MANAGEMENT (MGMT) COURSES

MARKETING AND LOGISTICS (MKTL)

Thomas D. Jensen,
Department Chair and Wal-Mart lecturer in Retail, 302 WCOB,
479-575-4055
  • R. A. and Vivian Young Chair and Distinguished Professor Kurtz
  • Wal-Mart Chair of Marketing and Professor Burton
  • Wal-Mart Lecturer in Retailing and Professor Jensen (T.)
  • Oren Harris Chair of Transportation and Professor Ozment
  • Garrison Chair in Supply Chain Management and Professor Waller
  • Professors Creyer, Murray
  • Associate Professors Ashton, Kopp, Rapert, Stassen
  • Assistant Professors Eroglu, Hofer (C.), Smith (R.)
  • Visiting Assistant Professors Hofer (A.), Jensen (M.)
  • Instructors Cole, Cox

The department of marketing and logistics offers two majors:
1) marketing
2) transportation and logistics.

Descriptions of the marketing major and courses follow. The transportation and logistics major is described in the next section.

Marketing Major

The major in marketing requires 24 hours of major and collateral courses in the discipline as well as satisfying the other requirements for the B.S.B.A. degree. A maximum of 27 hours is allowed in a WCOB major or discipline field of study (i.e., core, major, electives) unless the extra courses are part of an interdisciplinary minor or collateral track. See an adviser for selection of courses.

** Group 1 **

MGMT 3933 Entrepreneurship/New Venture
MGMT 4243 Ethics and Corporate Responsibility
MGMT 4253 Leadership
MGMT 4263 Organizational Change and Development
MGMT 4433 Small Enterprise Development
MGMT 4943 Organizational Staffing
MGMT 4953 Orgn Rewards/Compensation
The major in marketing is designed to prepare students for careers involving product planning, distribution, promotion, and pricing strategies in profit or nonprofit organizations. In addition to a broad overview of the marketing functions within organizations, students are provided with knowledge and skills in consumer behavior, marketing research, and strategic marketing. Students majoring in marketing are actively subjected to problem-solving situations, both domestic and international, where a variety of contemporary tools are employed to stimulate the strategic decision-making process. Supportive disciplines with which the marketer should be familiar include psychology, sociology, accounting, economics, statistics, quantitative analysis, and research methodology.

The marketing major has two concentrations to select from: marketing management and retail marketing. The marketing management concentration is intended to provide students with broad knowledge and skills in marketing management and retail marketing. The retail marketing concentration prepares students for careers in the retail industry. The retail marketing concentration prepares students for careers in the retail industry.

Marketing Major Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the requirements for a B.S.B.A. degree as listed on page 209.</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total General Education</strong></td>
<td>60</td>
</tr>
<tr>
<td><strong>Walton College Core Requirements (See page 209)</strong></td>
<td>33</td>
</tr>
<tr>
<td><strong>Course Requirements in All Concentrations</strong></td>
<td>24</td>
</tr>
<tr>
<td>MKTG 3433 Introduction to Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3633 Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3553 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4533 Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>Majors must select one of the following concentrations and must complete twelve hours of course work in the elected concentration.</td>
<td></td>
</tr>
<tr>
<td><strong>Concentration I: Marketing Management</strong></td>
<td></td>
</tr>
<tr>
<td>Select twelve hours from the following:</td>
<td></td>
</tr>
<tr>
<td>MKTG 4233 Integrated Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4343 Selling and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4103 Marketing Topics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4633 Global Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4433 Retail Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4443 Retail Buying and Merchandise</td>
<td>3</td>
</tr>
<tr>
<td><strong>Concentration II: Retail Marketing</strong></td>
<td></td>
</tr>
<tr>
<td>MKTG 4433 Retail Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4443 Retail Buying and Merchandise</td>
<td>3</td>
</tr>
<tr>
<td>Select two courses (six hours) from the following:</td>
<td>6</td>
</tr>
<tr>
<td>MKTG 4233 Integrated Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4343 Selling and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4103 Marketing Topics</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4633 Global Marketing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Junior- senior-level electives within Walton College</strong></td>
<td>15</td>
</tr>
<tr>
<td>Maximum of 27 hours of MKTG courses in department (core, major, elective).</td>
<td></td>
</tr>
<tr>
<td>More than 27 hours allowed if the extra courses are part of interdisciplinary minor or collateral track.</td>
<td></td>
</tr>
<tr>
<td><strong>Total Walton College Requirements</strong></td>
<td>60</td>
</tr>
<tr>
<td><strong>Total Degree Requirements</strong></td>
<td>126</td>
</tr>
</tbody>
</table>

Marketing Eight-Semester Degree Program:

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The marketing major has two concentrations: marketing management and retail marketing. The eight-semester plans for both are listed below.

Courses in **ITALIC** may be taken in varied sequences as long as other designated requirements for these courses are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations below are preferred.

### Marketing Management Concentration

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester Year 1</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I ** – University Core</td>
</tr>
<tr>
<td>3</td>
<td>MATH 2053 Finite Math – University Core</td>
</tr>
<tr>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td>1</td>
<td>WCOB 1111 Freshman Business Connections</td>
</tr>
<tr>
<td>2</td>
<td>WCOB 1012 Legal Environment of Business *</td>
</tr>
<tr>
<td>0</td>
<td>WCOB 1120 Computer Competency Requirement</td>
</tr>
<tr>
<td>3</td>
<td>U.S. History or Political Science – University Core</td>
</tr>
<tr>
<td><strong>15 Semester Hours</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Spring Semester Year 1</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II ** – University Core</td>
</tr>
<tr>
<td>3</td>
<td>WCOB 1023 Business Foundations</td>
</tr>
<tr>
<td>3</td>
<td>WCOB 1033 Data Analysis and Interpretation</td>
</tr>
<tr>
<td>4</td>
<td>ECON 2023 Microeconomics – University Core</td>
</tr>
<tr>
<td>3</td>
<td>Natural Science – University Core</td>
</tr>
<tr>
<td><strong>16 Semester Hours</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fall Semester Year 2</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>MATH 2043 Survey of Calculus **</td>
</tr>
<tr>
<td>3</td>
<td>ECON 2013 Macroeconomics ** – University Core</td>
</tr>
<tr>
<td>6</td>
<td>Select TWO of the following:</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td></td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
<td></td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
<td></td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Social Science – University Core</td>
</tr>
<tr>
<td>3</td>
<td>Fine Art/Humanities – University Core</td>
</tr>
<tr>
<td><strong>18 Semester Hours</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Spring Semester Year 2</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Fine Art/Humanities – University Core</td>
</tr>
<tr>
<td>4</td>
<td>Natural Science – University Core</td>
</tr>
<tr>
<td>3</td>
<td>Business Social Science</td>
</tr>
<tr>
<td>6</td>
<td>Select TWO of the following not completed in previous semester:</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td></td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
<td></td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
<td></td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
<td></td>
</tr>
<tr>
<td><strong>16 Semester Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

ALL pre-business requirements should be met by end of term.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester Year 3</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>MKTG 3433 Introduction to Marketing Strategy</td>
</tr>
<tr>
<td>6</td>
<td>WCOB 3016 Business Strategy and Planning</td>
</tr>
<tr>
<td><strong>15 Semester hours</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Spring Semester Year 3</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>MKTG 3633 Marketing Research</td>
</tr>
<tr>
<td>3</td>
<td>MKTG elective</td>
</tr>
<tr>
<td>6</td>
<td>Junior Senior Business Electives</td>
</tr>
<tr>
<td><strong>15 Semester hours</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fall Semester Year 4</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>MKTG 3553 Consumer Behavior</td>
</tr>
<tr>
<td>6</td>
<td>MKTG electives</td>
</tr>
<tr>
<td>7</td>
<td>General Education Electives</td>
</tr>
<tr>
<td><strong>16 Semester hours</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Retail Marketing Concentration

#### Fall Semester Year 1
- 3 ENGL 1013 Composition I ** – University Core
- 3 COMM 1313 Fundamentals of Communication
- 1 WCOB 1111 Freshman Business Connections
- 2 WCOB 1012 Legal Environment of Business *
- 3 WCOB 1120 Computer Competency Requirement
- 3 U.S. History or Political Science – University Core
- 16 Semester Hours

#### Spring Semester Year 1
- 3 ENGL 1023 Composition II ** - University Core
- 2 WCOB 1023 Business Foundations
- 3 WCOB 1033 Data Analysis and Interpretation
- 2 ECON 2023 Microeconomics – University Core
- 3 Natural Science – University Core
- 16 Semester Hours

#### Fall Semester Year 2
- 3 MATH 2043 Survey of Calculus **
- 3 ECON 2013 Macroeconomics ** – University Core
- 6 Select TWO of the following:
  - WCOB 2013 Markets and Consumers
  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- 3 Social Science – University Core
- 3 Fine Art/Humanities – University Core
- 18 Semester Hours

#### Spring Semester Year 2
- 3 Fine Art/Humanities – University Core
- 3 Natural Science – University Core
- 3 Business Social Science
- 6 Select TWO of the following not completed in previous semester:
  - WCOB 2013 Markets and Consumers
  - WCOB 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- 16 Semester Hours

#### Fall Semester Year 3
- 3 MKTG 3433 Introduction to Marketing Strategy
- 3 WCOB 3016 Business Strategy and Planning
- 3 Junior Senior Business Electives
- 15 Semester hours

#### Spring Semester Year 3
- 3 MKTG 3633 Marketing Research
- 3 MKTG 4443 Retail Strategy
- 3 Junior Senior Business Electives
- 3 ENGL 2003 OR ENGL 2013 OR General Education Elective IF Advanced Composition Requirement has already been met ***
- 15 Semester hours

---

### Marketing Minor for Business Students:

The Department of Marketing and Logistics offers a minor for Walton College students desiring more knowledge of marketing to assist them in their careers. The minor requires the completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include the following courses:

- MKTG 3433 Introduction to Marketing Strategy
- MKTG 3553 Consumer Behavior
- Plus nine hours from the following courses:
  - MKTG 4233 Integrated Marketing Communications
  - MKTG 4343 Selling and Sales Management
  - MKTG 3635 Marketing Research
  - MKTG 4633 Global Marketing
  - MKTG 4433 Retail Strategy
  - MKTG 4443 Retail Buying and Merchandising

Students who desire to earn a Marketing minor must notify the Walton College Undergraduate Programs Office of intent to pursue a minor. All requirements for the minor must be completed prior to the awarding of the student’s undergraduate degree. All specific course pre-requisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

SEE PAGE 375 FOR MARKETING (MKTG) COURSES

### Transportation and Logistics Major

The major in transportation and logistics is designed to prepare students for careers in carrier management, warehousing, retail, and manufacturing positions with carriers in all transportation modes, and in positions with shippers having responsibility in one or more of the areas under logistics management. Opportunities also exist in governmental agencies.

Complete the requirements for a B.S.B.A. degree as listed on page 209.

- **Total General Education** 60
- **Walton College Core Requirements** (See page 209) 33
- **Course Requirements in the Major** 24
  - TLOG 3443 Principles of Transportation 3
TLOG 3613 Business Logistics 3
TLOG 3623 Purchasing and Inventory Systems 3
TLOG 4633 Transportation Carrier Management 3
TLOG 4643 International Transportation and Logistics 3
TLOG 4653 Transportation and Logistics Strategy 3
Plus two classes (six hours) from a single area: 6
Information Systems:
ISYS 3253 Information Technology Infrastructure 3
ISYS 2263 Intro to Information Systems Dev. 3
Marketing:
MKTG 4343 Selling and Sales Management 3
MKTG 3633 Marketing Research 3
MKTG 4633 Global Marketing 3
MKTG 4433 Retail Strategy 3
International:
ECON 4653 International Trade Policy 3
ECON 4643 International Macroeconomics and Finance 3
FINN 3703 International Finance 3
MGMT 4853 International Management 3
MGMT 4833 International Marketing 3

Students wishing to follow the eight-semester degree plan for Transportation and Logistics should see page 42 in the Academic Regulations chapter for university requirements of the program.

Courses in BOLD must be taken in the designated semester. Courses in ITALIC may be taken in varied sequences as long as other designated requirements for these courses are met. Although other courses listed are not required to be completed in the designated sequence, the recommendations below are preferred.

### Transportation and Logistics Eight-Semester Degree Program:

Students desiring more knowledge of transportation and logistics to assist them in their careers. The minor requires the completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include the following courses:

#### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall Semester Year 1</td>
<td></td>
</tr>
<tr>
<td>3 ENGL 1013 Composition I ** – University Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 MATH 2053 Finite Math – University Core</td>
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<td>3 COMM 1313 Fundamentals of Communication</td>
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<tr>
<td>1 WCOB 1111 Freshman Business Connections</td>
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<tr>
<td>2 WCOB 1012 Legal Environment of Business *</td>
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<tr>
<td>0 WCOB 1120 Computer Competency Requirement</td>
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<tr>
<td>3 U.S. History or Political Science – University Core</td>
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<tr>
<td>15 Semester Hours</td>
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#### Spring Semester Year 1

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<tr>
<td>3 ENGL 1023 Composition II ** – University Core</td>
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<tr>
<td>3 WCOB 1023 Business Foundations</td>
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<tr>
<td>3 WCOB 1033 Data Analysis and Interpretation</td>
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<td>3 ECON 2023 Microeconomics – University Core</td>
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<tr>
<td>4 Natural Science – University Core</td>
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#### Fall Semester Year 2

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>3 MATH 2043 Survey of Calculus **</td>
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<td></td>
</tr>
<tr>
<td>3 ECON 2013 Macroeconomics ** – University Core</td>
<td></td>
<td></td>
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<tr>
<td>6 Select TWO of the following:</td>
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<tr>
<td>WCOB 2013 Markets and Consumers</td>
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#### Fall Semester Year 3

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>3 TLOG 3443 Principles of Transportation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 TLOG 3613 Business Logistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Collateral from a single area</td>
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<tr>
<td>6 WCOB 5016 Business Strategy and Planning</td>
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#### Fall Semester Year 4

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<th>Course Code</th>
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<tbody>
<tr>
<td>3 TLOG 3623 Purchasing and Inventory Systems</td>
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<tr>
<td>3 TLOG 4653 Transportation and Logistics Strategy</td>
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<td></td>
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<tr>
<td>3 Junior Senior Business Elective</td>
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<td></td>
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<tr>
<td>6 General Education Electives</td>
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<tr>
<td>15 Semester hours</td>
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#### Spring Semester Year 2

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<tr>
<th>Course Code</th>
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<th>Hours</th>
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<tr>
<td>3 MATH 2043 Survey of Calculus **</td>
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<tr>
<td>3 ECON 2013 Macroeconomics ** – University Core</td>
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<tr>
<td>6 Select TWO of the following:</td>
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<tr>
<td>WCOB 2013 Markets and Consumers</td>
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#### Spring Semester Year 3

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<tr>
<th>Course Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>3 Collateral from a single area</td>
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<tr>
<td>9 Junior Senior Business Electives</td>
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<tr>
<td>3 ENGL 2003 or ENGL 2013 or General Education Elective I F Advanced Composition Requirement has already been met ***</td>
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<tr>
<td>1 General Education Elective</td>
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<tr>
<td>16 Semester hours</td>
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#### Spring Semester Year 4

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>3 TLOG 4643 International Transportation and Logistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 TLOG 4653 Transportation and Logistics Strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Junior Senior Business Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 General Education Electives</td>
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<td></td>
</tr>
<tr>
<td>15 Semester hours</td>
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### Total Degree Requirements

60 Total Semester Hours | 126 Total Hours

### Transportation and Logistics Minor for Business Students:

The Department of Marketing and Logistics offers a minor for Walton College students desiring more knowledge of transportation and logistics to assist them in their careers. The minor requires the completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include the following courses:

TLOG 3443 Principles of Transportation
TLOG 3613 Business Logistics
TLOG 4653 Transportation and Logistics Strategy
TLOG 4643 International Transportation and Logistics
TLOG 4633 Transportation Carrier Management
TLOG 4643 International Transportation Logistics

Students who desire to earn a Transportation and Logistics minor must notify the Walton College Undergraduate Programs Office of their intent to pursue a minor.
All requirements for the minor must be completed prior to the awarding of the student's undergraduate degree. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

SEE PAGE 394 FOR TRANSPORTATION AND LOGISTICS (TLOG) COURSES

**WALTON COLLEGE OF BUSINESS (WCOB)**

William P. Curington  
Associate Dean for Academic Affairs, 328 WCOB, 479-575-7105  
These courses are interdisciplinary courses that are not attached to a specific department in Walton College.

**Enterprise Resource Planning Minor**  
The Walton College offers an interdisciplinary minor in Enterprise Resource Planning (ERP). ERP systems are large-scale programs, which are used by many large companies to integrate their business processes and run the organization using primarily one software system. The minor requires completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include:

- WCOB 4213 ERP Fundamentals  
- WCOB 4223 ERP Configuration and Implementation  
- Plus nine hours from the following courses:  
  - ACCT 3013 Accounting View of Economic Events  
  - ACCT 3533 Accounting Technology  
  - ISYS 4233 ERP Development  
  - TLOG 3443 Principles of Transportation  
  - TLOG 3613 Business Logistics  
  - TLOG 3623 Purchasing and Inventory Systems  

Students who desire to earn an Enterprise Resource Planning minor must notify the Walton College Undergraduate Programs Office of intent to pursue a minor. All requirements for the minor must be completed prior to the awarding of the student's undergraduate degree. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered for the minor.

**Financial Economics Minor**  
The Walton College offers an interdisciplinary minor in Financial Economics. The minor will provide students with the background needed for research in finance and industry. The minor requires completion of 15 hours of study with all of the courses applied toward the minor taken in residence. The 15 hours include:

- FINN 3103 Financial Analysis and Valuation  
- ECON 4753 Forecasting (Applied Time Series)  
- Plus nine hours from the following courses:  
  - FINN 3063 Investments  
  - FINN 3603 Corporate Finance  
  - ECON 3033 Money and Banking  
  - ECON 4743 Intro. to Econometrics  

Students who desire to earn a Financial Economics minor must notify the Walton College Undergraduate Programs Office of intent to pursue a minor. All requirements for the minor must be completed prior to the awarding of the student's undergraduate degree. All specific course prerequisites must be met. Each student must have a 2.00 cumulative grade-point average in the courses offered in the minor.

SEE PAGE 395 FOR WALTON COLLEGE OF BUSINESS (WCOB) COURSES
College of Education and Health Professions

MISSION AND OBJECTIVES

The mission of the College of Education and Health Professions is to enhance the quality of life of the citizens of Arkansas, the nation, and the world through the development of scholar-practitioners in education, health, and human services. The vision of the college is to become a nationally competitive, student-centered research college serving Arkansas and the world.

The goals of the College of Education and Health Professions are as follows:

• Strengthen the academic quality and reputation of the college by developing and enhancing programs of excellence in teaching, research, and service.
• Improve the quality and diversity of our students, faculty, and staff, and increase the size of our student enrollment.
• Generate increased private and public support for the college’s research, academic, and service initiatives.

FACILITIES AND RESOURCES

The Sylvia Hack Boyer Center for Student Services

To ensure that students receive the personal attention they need and deserve throughout their enrollment, the college established the Sylvia Hack Boyer Center for Student Services. Students who have completed 44 hours or less are assigned a professional academic adviser in the Center who will assist them by: providing accurate and personalized academic information, educating them about their academic responsibilities, and referring them to the internal and external resources and services of the University.

Questions pertaining to undergraduate programs, transfer of credit, student services, graduation requirements, and university administrative policies and procedures can be directed to the Sylvia Hack Boyer Center for Student Services, 479-575-4203, 336 Graduate Education Building. The Center is part of the Office of the Associate Dean for Academic Affairs and can be reached via e-mail at bcss@uark.edu.

Organization

For administrative purposes, the programs of the college are organized under five academic units:

1. Curriculum and Instruction
   • Career and Technical Education
   • Childhood Education
   • Elementary Education
   • Secondary Education
   • Special Education
   • Educational Statistics and Research Methods
   • Educational Leadership
   • Educational Technology
2. Education Reform
3. Eleanor Mann School of Nursing
   • Nursing
4. Health Science, Kinesiology, Recreation, and Dance
   • Health Science
   • Kinesiology
   • Recreation
5. Rehabilitation, Human Resources, and Communication Disorders
   • Communication Disorders
   • Counselor Education
   • Higher Education
   • Human Resource Development
   • Rehabilitation Counseling
   • Workforce Development Education
Facilities

The Graduate Education Building and Peabody Hall serve as the nucleus of the College of Education and Health Profession’s activities. An auditorium, several conference and seminar rooms, classrooms, and offices for individual professors, along with several special administrative and service units such as dean, associate dean for administration, associate and assistant deans for academic affairs, the Sylvia Hack Boyer Center for Student Services, distance education center and educational statistics laboratory are housed in the Graduate Education Building.

Peabody Hall houses the Department of Curriculum and Instruction, Teacher Licensure, and several classrooms and offices for individual professors. The Health, Physical Education and Recreation (HPER) Building houses the majority of faculty offices and classrooms for health science, kinesiology, recreation and the Office for Studies on Aging. Specialized indoor space for instruction and recreation includes two dance studios, the Donna Axum Fitness Center, four gymnasiaums, an Olympic-size swimming pool, a jogging track, a climbing wall, and a combative room. The building also features a Human Performance Laboratory for instruction and research. The Department of Health Science, Kinesiology, Recreation, and Dance uses the Donna Axum Fitness Center, HPER Building Natatorium, UA tennis courts, and Barnhill Arena for instructional purposes. Intramural/Recreational Sports offices are located on the second level of the HPER Building. The intramural/recreational sports program is a University-wide service program housed in the college. Administered through the Department of Health Science, Kinesiology, Recreation, and Dance, the program provides recreational activities to the entire University community. The program is organized into seven program areas: intramural sports, fitness/wellness, facility management, special events, sport clubs, accessible recreation, and the Outdoor Connections Center.

The Communication Disorders program is housed in the Speech and Hearing Clinic. The clinic contains faculty offices, a classroom, a graduate seminar room, teaching and research laboratories, and space for the provision of services to the speech, language, and hearing impaired. University services are provided through the clinic to University students and the community.

The Eleanor Mann School of Nursing is housed in Ozark Hall. The nursing program facilities include administrative offices, faculty offices, two classrooms, two laboratories, a conference room, and a computer lab. The school has affiliation agreements for clinical practice with area health care agencies.

West Avenue Annex houses the following education research and service units: Office for Research, Measurement and Evaluation (ORME), Office for Educational Policy (OEP), Arkansas Leadership Academy (ALA), Teacher Advancement Program of Arkansas (TAPS), Great Expectations of Arkansas (GEA), Arts in Education (A+) programs, and the child-care projects office. Established in 1991, the Arkansas Leadership Academy is a nationally recognized statewide partnership of 13 universities, 9 professional associations, 15 educational cooperatives, the Arkansas Departments of Education, Higher Education, and Workforce Education, the Arkansas Educational Television Network, Tyson Foods Inc., Wal-Mart Stores Inc., and the Walton Family Foundation. The Office of Research, Measurement, and Evaluation conducts targeted educational research focusing on issues affecting students in Arkansas and general theoretical work in statistics, testing, and educational measurement. The Office of Education Policy was established in 2003 within the Department of Educational Leadership, Counseling, and Foundations to gather and disseminate evidence to aid lawmakers and policy makers in decision-making regarding education in the state.

Established in 1974, the Center for the Utilization of Rehabilitation Resources for Education, Networking, Training and Service (CURRENTS) provides human resources development programming for personnel employed in rehabilitation programs funded by the Rehabilitation Act. These programs include the following: state vocational rehabilitation agencies, independent living centers, community rehabilitation programs, client assisted programs, and projects with industries in the states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. The center is located at the Hot Springs Rehabilitation Center, Hot Springs, Arkansas.

Established in 1981, the Research and Training Center for People who are Deaf or Hard of Hearing conducts research and training programs to enhance rehabilitation efforts on behalf of the 24 million U.S. citizens who are deaf or hard of hearing. These programmatic efforts are directed toward enhancing the career preparation, job entry and placement, career advancement, and workplace communication accommodations consistent with the Americans with Disabilities Act. The center is located in Little Rock.

Academic Journals

The College of Education and Health Professions is host to several highly regarded academic and professional journals. One such publication is the Journal of American Deafness and Rehabilitation Association, whose monographs are edited by Douglas Watson, a professor of rehabilitation counseling. The journal is now in its 35th year of publication and is considered the nation’s leading reference for issues involving rehabilitation of persons who are deaf or hard of hearing.

The Journal of Interpretation also is edited by Watson. Published by the Registry of Interpreters for the Deaf, this journal is considered the most widely read sign-language interpreting journal in the world.

In addition, the college is host to the Journal of Research & Policy Studies, edited by Christopher J. Lucas, a professor of educational foundations.

DEGREES OFFERED

The college offers curricula leading to the Bachelor of Science in Education degree (B.S.E.) with several programs listed below. Several of these degree programs have concentrations and specialties that are described in the section entitled “Departmental Majors.”

The college also offers the curriculum leading to the Bachelor of Science in Nursing (B.S.N.). The degree programs are described in this college section under the area of “Departmental Majors.”

MAJORS, CONCENTRATIONS, AND MINORS

**Majors and Concentrations**

- Career and Technical Education
  - Business Education
  - Competency-Based Teacher Development
  - Family and Consumer Sciences Education
  - Technology Education
- Childhood Education
- Communication Disorders
- Elementary Education
- Health Science
- Human Resource Development
- Kinesiology
  - P-12 Teaching Physical Education/Wellness & Leisure
  - Exercise Science – Pre-Professional
  - Applied Exercise Science
- Nursing
- Recreation
- Special Education

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**Colleges and Schools**

College of Education and Health Professions

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University of Arkansas, Fayetteville
Minors
Undergraduate students in the college may declare any official academic minor available at the University of Arkansas. Students must notify the Sylvia Hack Boyer Center for Student Services of their intent to pursue a minor. The college, with the assistance of the college offering the minor, will certify that the requirements of the minor have been satisfied. The academic minor will be designated on the student's official transcript. Requirements for the minor are listed in the catalog under the department offering the minor. The College of Education and Health Professions only offers one minor in Recreation (Department of Health Sciences, Kinesiology, Recreation and Dance). See page 258 for course requirements.

OTHER PROGRAMS

Curricula Offered For Initial Licensure
Nursing Licensure: Completing the minimum requirements for the degree of Bachelor of Science in Nursing will satisfy the academic requirements for licensure as a Registered Professional Nurse. Students must complete all of the requirements set forth by the Arkansas State Board of Nursing to be licensed as a registered nurse. See adviser for details.

Teacher Licensure and Licensure of other School Personnel:
The approved program of study for initial licensure at the University of Arkansas, except for some programs in childhood education, career & technical education (business education, family and consumer science, technology education), kinesiology, speech-language pathology, music and art education, and agriculture education, is the Masters of Arts In Teaching (M.A.T.) degree program. The M.A.T. degree program is offered in consecutive summer, fall, and spring semesters with initial enrollment in the summer semester. The M.A.T. is a graduate degree program and requires a minimum of 33 semester hours. The M.A.T. degree program has three areas of emphasis: childhood education, some teacher preparation programs in Kinesiology and secondary education. Consult the Admissions Process for Initial Teacher Licensure Stages I-IV on page 238 and the Graduate School Catalog for admission and graduation requirements for the M.A.T. degree program. The approved program of study for initial licensure in speech-language pathology is the Masters of Science degree in Communication Disorders. Procedures for obtaining licensure parallel those used with M.A.T. graduates. There are some non-M.A.T. licensure programs. See the appropriate sections of this catalog for that information. For bachelor's degree licensure requirements in career and technical education, music and art education, and some areas of agriculture education see appropriate sections of this catalog.

The State Board of Education issues the regulations governing the licensure of teachers in Arkansas. The Board specifies minimum cut-off scores for all Praxis exams. The University of Arkansas pass rate for 2005-2006 was 100 percent, and 130 students completed the program. Each application for a teacher's license requires completion of an approved program of study, completion of a state and national background check, and documentation of passing the Praxis exams. Those wishing to add an additional license or endorsement, should contact the Coordinator of Teacher Education in 117 Peabody Hall for the approved programs of study or go to http://www.uark.edu/depts/coehp/Certification.htm. Look for the menu “Additional Licensure Plan Program of Study.”

The Bumpers College of Agricultural, Food and Life Sciences, College of Education and Health Professions, Fulbright College of Arts and Sciences, and the University Teacher Education Board for Initial Certification have developed the preparation programs leading to initial teacher licensure. The Coordinator of Teacher Education will recommend students for initial teacher license who have submitted the licensing packet and successfully completed the appropriate approved program and all state licensure requirements. Licensure packets may be obtained from the Coordinator of Teacher Education, 117 Peabody Hall, 479-575-6740, or from the Arkansas Department of Education 501-682-4342. Students must follow the licensure guidelines as set forth by the Arkansas Department of Education in consultation with the Coordinator of Teacher Education. Adding an additional licensing area or endorsement may also require passing Praxis II scores and an approved program of study. See College Academic Regulations for the admission process for initial teacher licensure.

University Teacher Education Board for Initial Certification
The University Teacher Education Board for Initial Certification is composed of the associate deans; faculty representatives from the College of Education and Health Professions; the J. William Fulbright College of Arts and Sciences; the Dale Bumpers College of Agricultural, Food and Life Sciences; public school teachers and/or administrators, and students. The functions are to (1) govern the teacher education and licensure program; (2) establish general policies and procedures necessary to maintain quality in degree programs; (3) oversee the general coordination of the initial licensure process; and (4) approve new courses and course changes in individual licensure program. The Board serves as a liaison group for the faculties involved and emphasizes the importance of teacher education as one of the primary responsibilities of the University.

COLLEGE ADMISSION REQUIREMENTS

All entering students (including freshmen, international, and transfer) admitted to the University of Arkansas, Fayetteville, are eligible for admission to the college.

Transfer of Credit
The policies controlling the granting of credit for course work taken at other institutions apply as follows:

1. Neither hours nor grades earned in transfer work are used in the determination of the student's grade-point average.
2. General transfer credit is awarded for courses in which a grade of “C” or higher has been earned. Course work must be applicable to a baccalaureate degree; credit is not granted for course work that is remedial or technical in nature. Students can petition to have up to six hours of “D” grades transfer for degree credit to the University of Arkansas. Students must have a 2.00 GPA on a 4.00 scale to be considered, and courses must meet core or elective requirements in the student's degree program. Courses outside the degree program and courses in the major cannot be considered for transfer. The Third Level Administrative Review Committee makes all decisions regarding “D” transfers. Petitions can be obtained from the Office of Admissions, or you can print and mail a “D” Petition Form. The form is available online at http://admissions.uark.edu/students/transfer/dpetition.pdf.
3. If a course with a grade of “D” is successfully petitioned through the Office of Admissions for “General Credit,” the College of Education and Health Professions requires a second petition called “A Petition to Accept ‘D’ Grades for Transfer Credit” to be successfully navigated. The petition can be obtained from the Sylvia Hack Boyer Center for Student Services, 336 Graduate Education Building. Each course will be reviewed by the COEH P Undergraduate Curriculum Committee. Students are encouraged to make an appointment with an academic adviser in the Sylvia Hack Boyer Center for Student Services to discuss options and to clarify this procedure.
4. Education courses completed at the lower-division (freshman or sophomore) level at another institution will not count as equivalents of upper-division (junior or senior) level courses offered in the college.
5. Courses taken at other institutions of higher education where the course content is designed to be remedial are not accepted.
6. The student should be prepared to submit official course descriptions of transfer course work if there is any question as to whether the college will grant degree credit for such work.

Undeclared Majors
Students enrolled in the College of Education and Health Professions must declare a major. For assistance contact the Sylvia Hack Boyer Center for Student Services, 336 Graduate Education Building, 479-575-4203.

COLLEGE SCHOLARSHIPS

The College of Education and Health Professions offers limited numbers of scholarships in varying amounts. Recipient selection is based on a variety of attributes that are specific to each award. Attributes may include but are not limited to: the basis of promise, character, leadership skills, scholarship, or financial need.

Scholarship applications are available in December of each year via the College Web site at http://coehp.uark.edu/. All current and future COEHP students are strongly encouraged to take advantage of these scholarship opportunities. For further information regarding scholarships and the application process, visit the Scholarships link on the College of Education and Health Professions’ Web site or contact the Office of the Associate Dean for Administration, 301 Graduate Education Building, 479-575-5116.

STUDENT ORGANIZATIONS

There are many general-interest societies and organizations on the campus, and nearly every department of the University maintains an honor society through which high scholarship is rewarded. Of special interest to students in the college are the following:

- Kappa Delta Pi – honor society for education
- Phi Delta Kappa – honor fraternity for graduate students
- Kinesiology Club – for kinesiology majors
- Recreation Majors Club – for recreation students
- Razorback Athletic Training Association (RATA) – for undergraduate kinesiology majors with a concentration in exercise science – pre-athletic training, entry level graduate athletic training students and graduate assistant athletic trainers in women’s and men’s athletics
- National Student Speech-Language-Hearing Association – for communication disorders majors
- Arkansas Nursing Students Association, National Student Nurse Association, and the Pi Theta chapter of Sigma Theta Tau International Honor Society of Nursing – for nursing majors
- Rehabilitation Counseling Association for Students – rehabilitation counseling program majors.
- Technology Education Collegiate Association – Technology education program majors.

COLLEGE ACADEMIC REGULATIONS

Admission Process for Initial Teacher Licensure

Stage I: Enrollment
Enroll in an undergraduate degree program leading to a potential teacher licensure field. Potential fields include the following:
- Agricultural Education – B.S.A.
- Art Education – B.F.A.
- Career & Technical Education (Business Education) – B.S. E. (initial licensure program, see page 9 for admissions requirements)
- Career & Technical Education (Family & Consumer Science) – B.S. E. (initial licensure program, see page 9 for admissions requirements)
- Career & Technical Education (Technology Education) – B.S. E. (initial licensure program, see page 9 for admissions requirements)
- Childhood Education – B.S.E.
- Elementary Education – B.S.E. Licensure Program
- Human Environmental Sciences Education – B.S.H.E.S.
- Kinesiology P-12 – B.S.E.
- Music Education – B.M.
- Secondary Education – B.A., B.S.
- Speech-Language Pathology – B.S.

Stage II: Evaluation
Complete an Evaluation for Internship by October 1 prior to entering the undergraduate student teaching semester or the Masters of Arts in Teaching (M.A.T.). All non-M.A.T. licensure programs should complete the evaluation by October 1 prior to a fall student teaching and by March 1 prior to a spring student teaching experience. Satisfactory completion of this form does not guarantee admission to the student teaching semester or the Masters of Arts in Teaching (M.A.T.) degree program or other teacher education programs. All requirements must be cleared for the internship. This form is available from the college Web site at coehp.uark.edu/licensure.html. The form must be completed and returned to the Coordinator of Teacher Education, 117 Peabody Hall.

Students must meet the following criteria to be cleared for internship:
1. Pass Praxis I test by meeting or exceeding the Arkansas Department of Education cut-off scores. This test should be taken after the student has completed 30 credit hours and upon completion of ENGL 1013, ENGL 1023, and MATH 1203. Please note that several departments have additional program requirements regarding the Praxis I and II. Please consult with your adviser for additional requirements.
2. Obtain a “C” or better in the following pre-education core if these courses are required for your program:
   - CIED 1002, CIED 1011, CIED 3023 (PHED 3903 for KINS p-12 majors), CIED 3033, ETAB 2001, ETAB 2002L.
   - In addition, For Middle-Level Education and Elementary Education a minimum of “C” or higher must be earned in ENGL 1013, ENGL 1023, ENGL 2003, COMM 1313, and MATH 1203 unless UA exemption is earned in one or more of the courses. This does not apply to career and technical education students.
3. Career and technical students may take CATE 1001 Practicum in Career & Technical Education in lieu of CIED 1002 and CIED 1011.
4. Complete additional licensure requirements: COEHP majors take either HLSC 1002 or 1103, and PEAC 1621. PHED majors take HLSC 1103, and PHED 3043. CHED and MLED majors take HIST 3383. SEED Social Studies students take either HIST 4583 or HIST 3383 and any ECON course. BUED students may take HLSC 1103 or HLSC 1002 and PEAC 1621.
5. Secondary Education majors except for art and music majors, must complete the following courses with a grade of “C” or higher: CIED
A. Requirements for M.A.T.

Stage IV: Graduation

1. Meet all requirements in stages I – III.
2. Obtain a minimum cumulative GPA of 3.00.
3. Complete a minimum of 33 graduate semester hours as specified by program area.
4. Satisfactorily complete an internship. The internship or student teaching experience will be completed at a school/district in Benton or Washington County that has been approved by the Northwest Arkansas Partnership Steering Committee.
5. Pass the appropriate Praxis tests (see adviser for the appropriate test) by meeting or exceeding the Arkansas Department of Education cut-off scores. This test is required for most programs. Please consult with your adviser.
6. Successfully complete Comprehensive Examination.
7. Consult with your adviser for other requirements.
8. Apply for degree at the Graduate School, 119 Ozark Hall.

B. Requirements for Career and Technical Education

1. Meet all requirements in Stages I - III.
2. Obtain a minimum cumulative GPA of 2.50.
3. Complete all coursework in the Program of Study.
4. Satisfactorily complete a student teaching experience for one semester.
5. Pass the appropriate Praxis tests (see adviser for the appropriate test) by meeting or exceeding the Arkansas Department of Education cut-off scores.
6. Successfully complete a teaching portfolio.
7. Consult with your adviser for other requirements.
8. Apply for degree.

Licensure

Students who have completed the stages listed above must obtain a licensure packet from the Coordinator of Teacher Education, 117 Peabody Hall, prior to entering internship. A mandatory meeting is held each April before starting either your internship or a student teaching experience.

NOTE: Students should always consult the Coordinator of Teacher Education or adviser regarding licensure requirement changes. Students will not be licensed to teach in Arkansas until they have met all requirements for licensure as set forth by the Arkansas Department of Education.

NOTE: Students who have completed the B.M. or B.E.A. in music or art education and the B.S.A. in agriculture education and have completed the internship may obtain the licensure packet from the Coordinator of Teacher Education, 117 Peabody Hall, at the mandatory meeting held each April before starting either your internship or a student teaching experience.

Usually licensure in another state is facilitated by qualifying for a license in Arkansas. Application in another state must be made on the application form of that state, which can be obtained by request from the State Teacher Licensure office in the capital city. An official transcript should accompany the application. In many instances the applications are referred to the Coordinator of Teacher Education to verify program completion in teacher education.

College Honor Roll

At the close of each semester, the college recognizes students who qualify for the honor roll. They are the 10 percent of the highest-ranking students in each class. Students must carry a minimum of 12 semester hours to be eligible for the Honor Roll and obtain a minimum term GPA of 3.5.

Graduation with Honors

Graduation with Honors will be conferred to College of Education and Health Professions students (who are not participating in the college "Honors Program") based upon their University of Arkansas cumulative grade-point average at the time of graduation. To earn this distinction, a student must have completed at least one-half of the course work required for his or her degree at the University of Arkansas, Fayetteville. The graduation with honors designation will be assigned as follows:

1. For highest distinction, the student must have a minimum cumulative grade point average of 3.95 and rank in the top 10 percent of the graduating class.
2. For high distinction, the student must have a minimum cumulative grade point average of 3.75 and rank in the top 10 percent of the graduating class.
HONORS PROGRAM

The College of Education and Health Professions Honors Program is designed for students who value and want to be challenged by an exceptional educational experience and want to focus their studies intensively. The program creates and supports an academic environment of intellectual adventure and provides a carefully integrated and demanding curriculum. The rewards are immense: high academic achievement; involvement in undergraduate research; academic distinction of Summa Cum Laude, Magna Cum Laude, or Cum Laude and confirmation of an honors degree on the student's transcript; and recognition at commencement.

The mission of the Honors Program is to: Establish and maintain an Honors community of learning that is intellectually rigorous, personally and culturally enriching, and fosters learning and discovery through independent and collaborative inquiry; Allow students to be creative, inquisitive and think outside the box; Support student research and analysis of ideas; Support student academic ventures through mentoring, travel, and supplies when presenting work at undergraduate research symposia; Challenge students to connect the classroom with the larger world by expanding social and cultural experiences and promoting leadership, and Prepare students for admission to and success within graduate and professional schools in the United States and abroad.

Benefits of participating in the Honors Program include: Small class sizes, close contact with talented faculty, opportunity for independent study that counts toward the requirements of the Honors Program, special academic counseling and priority registration, increased confidence and skill in writing, Honors housing, recognition on transcript as “Graduate of the University Honors Program,” enhanced career opportunities, and increased advantages for graduate or professional school applicants.

Admission to the COEHP Honors Program assures automatic admission to the University of Arkansas Honors College. The following are admission criteria for students seeking admission to the COEHP Honors Program:

Entering Freshmen
- 28 ACT or equivalent SAT score (not super scored)
- 3.5 or greater high school GPA

Students Applying Following Their First Academic Year
- Successful completion of one academic year at the University with a cumulative 3.5 or greater GPA
- Departmental recommendation regarding the student's academic abilities

Inter-College Transfer of Honors Students
- Students at the University who were honors students in other college honors program on campus may transfer into the COEHP under the following criteria:
  - 0-29 hours - 3.25 cumulative GPA
  - 30-59 hours - 3.37 cumulative GPA
  - 60-89 hours - 3.50 cumulative GPA

Transfer Students
- 3.5 Cumulative GPA in ALL transfer work
- Letter of recommendation from a previous professor regarding the student's academic abilities

Application:
1. Complete the Honors Program Application and return to: COEHP Honors Program, Attention Assistant Dean for Academic Affairs, Graduate Education Building, Room 317 Fayetteville, AR 72701
2. The COEHP Honors Council will review and approve all applications. A letter of acceptance will be sent to the student within 10 working days of receipt of the application.
3. Following admission to the COEHP Honors Program, a faculty mentor adviser will be assigned from the student's academic department in addition to an academic adviser in the Sylvia Hack Boyer Center for Student Services.

Eligibility for continued enrollment in the COEHP Honors Program will be based on the following cumulative minimum grade-point averages:
- 3.25 GPA - At the end of the freshman year (0-29 hours)
- 3.37 GPA - At the end of the sophomore year (30-59 hours)
- 3.5 GPA - At the end of the junior year (60-89 hours)
- 3.5 GPA - At graduation

At the end of each semester, the director of the COEHP honors program will review the academic records of all enrolled honors students to determine whether each one has the cumulative grade-point average to continue in the program. Students with less than a 3.5 GPA will be placed on probation. The student will be reinstated to the honors program when they have achieved the minimum grade point average.

Honors Degrees

The College of Education and Health Professions is dedicated to providing programs designed to meet the honors student's needs. To achieve this aim, the college faculty has developed two honors tracts for student which includes the COEHP Scholars program and the COEHP Honors Program. Students successfully completing the COEHP Honors Program and Scholars Program will receive the following academic accolades: (1) GPA > 3.9 - Summa Cum Laude, (2) GPA > 3.7 - Magna Cum Laude, (3) GPA ≥ 3.5 Cum Laude.

Requirements for the COEHP Scholars Program: The Scholars program provides an honors program for students of superior academic talent. Requirements for the scholars program include meeting all University and department degree requirements; completion of a minimum of 18 honors credit hours taken from the University program of study; completion of a minimum of 6 honors credit hours within the student's program of study including HNED 3001H Honors Education Thesis Tutorial, HNED 4003H Honors Education Thesis/Project; a minimum of 2 hours of honors courses from the student's academic department; completion of honors requirements including preparation and oral defense of an honors thesis; and a minimum cumulative grade-point average of 3.5.

Requirements for the COEHP Honors Program:
- Requirements for the COEHP Honors Program include meeting all University, COEHP, and department degree requirements; completion of a minimum of 12 honors credit hours taken from the University program of study; completion of a minimum of 6 honors credit hours within the student's program of study including HNED 3001H Honors Education Thesis Tutorial, HNED 4003H Honors Education Thesis/Project; a minimum of 2 hours of honors courses from the student's academic department; completion of honors requirements including preparation and oral defense of an honors thesis; and a minimum cumulative grade-point average of 3.5.

For more information about the honors program or to complete an application form, please refer to the college's honors Web page at http://honors.uark.edu/index.htm.

SEE PAGE 259 FOR College of Education and Health Professions Honors Program (HNED) COURSES

DEGREE REQUIREMENTS

Minimum Requirements for the B.S.E. or B.S.N. Degree

The candidates for a baccalaureate degree from the college must meet University requirements, which specify at least 124 semester hours of work with a grade-point average of at least 2.00 on all work attempted in the University. Students exempting any course must still meet the 124-hour graduation requirement and should consult their adviser for specific program
requirements. Exemption of courses does not result in credit earned. The students must comply with the prescriptions and restrictions listed below and under General Studies and must complete the requirements in one or more of the approved degree programs.

Students must also meet all other University Requirements for Graduation, including the University Core requirements (page 40). Students are required to have a pre-graduation check at least one semester prior to the graduation term. Students who complete the pre-graduation check and meet all University and College of Education and Health Professions requirements may apply for graduation under the guidelines detailed on page 42. All course work, University requirements, and college requirements must be completed by the deadline for the term in which applied. Students not graduating in spring, but wishing to participate in the spring commencement ceremony, must apply for graduation by the established priority deadline for the spring term. For clarification, please contact the Sylvia Hack Boyer Center for Student Services, 336 Graduate Education Building, at 479-575-4203.

GRADUATE STUDIES

The Graduate School, in cooperation with the college offers advanced work in education and health professions leading to the degrees of Master of Arts in Teaching, Master of Science, Master of Education, Educational Specialist, Doctor of Education, and Doctor of Philosophy.

The Graduate School awards the graduate degrees. Students who are interested in registering for graduate courses or in becoming candidates for these degrees should consult the dean of the Graduate School and the Graduate School Catalog.

Students who plan to study for an advanced degree in the subject-matter field should consult with the head of the department concerning course requirements to be eligible to begin graduate study. Specialization requirements for a B.S.E. degree in the College of Education and Health Professions may not be sufficient in every field to gain admission for graduate study without deficiencies.

ACCREDITATIONS

Students who complete the approved program of study leading to initial licensure are eligible to receive licenses to teach at the grade level or in the fields for which they have made preparation upon application and presentation of acceptable scores on the appropriate Praxis exams. However, students must follow licensure guidelines set forth by the Arkansas Department of Education to be licensed to teach.

The teacher education program of the College of Education and Health Professions is accredited by the National Council for Accreditation of Teacher Education (NCATE), 2010 Massachusetts Ave., NW, Suite 500, Washington, D.C. 20036; phone 202-466-7496; Web: www.nкатe.org. This accreditation covers the initial teacher preparation programs and/or advanced educator preparation programs. Because of the accreditation by the National Council for Accreditation of Teacher Education, students who complete the curricula as outlined in this catalog are eligible to be recommended for licensure in states that agree to certify graduates who are recommended by the College of Education and Health Professions as having fulfilled its requirements.

The teacher education program submits data to Educational Testing Service for its Title II Report. According to data from this report, there were 116 individuals who completed the teacher education program at the University of Arkansas in 2003-2004. Of these, 100 percent passed the Praxis I and II tests by the cut-off date.

The University of Arkansas holds membership in and is accredited by the North Central Association of Colleges and Secondary Schools. The college is also a member of the American Association of Colleges for Teacher Education. The graduate program in communication disorders is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association. The counselor education graduate program is nationally accredited through the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). The Bachelor of Science in Nursing (B.S.N.) degree program is accredited by the Commission on Collegiate Nursing Education and by the National League for Nursing Accrediting Commission. It is also approved by the Arkansas State Board of Nursing. The M.S. degree program in Rehabilitation Counseling is accredited by the Council on Rehabilitation Education (CORE). Graduates of the accredited program are eligible to sit for the Certified Rehabilitation Counselor (CRC) examination. The Bachelor of Science in Education (B.S.E.) degree program in Recreation is accredited by the National Recreation Park Association/American Association for Leisure and Recreation Council in Accreditation.

DEPARTMENTAL MAJORS

CURRICULUM AND INSTRUCTION (CIED)

Michael K. Daugherty
Department Head
214 Peabody Hall
479-575-4209
mkd03@uark.edu

The Department of Curriculum and Instruction sponsors initial teacher licensure programs in the areas of career and technical education, childhood education and secondary education. The department also offers additional licensure plans in ESL, gifted and talented, special education and selected other areas (please see College Web Site licensure link). Additional secondary school licensure programs are made available with the cooperation of the Department of Health Science, Kinesiology, Recreation, and Dance; the Department of Rehabilitation, Human Resources and Communication Disorders; the J. William Fulbright College of Arts and Sciences; and the Dale Bumpers College of Agricultural, Food and Life Sciences.

SEE PAGE 328 FOR CURRICULUM AND INSTRUCTION (CIED) COURSES

CAREER AND TECHNICAL EDUCATION (CATE)

- Professors Daugherty, Thompson (C.)
- Associate Professor Orr
- Clinical Instructor Rossetti

The University of Arkansas has been approved by the State Board for Workforce Education for the preparation of teachers, supervisors, and administrators in career and technical education. Three of the four concentration areas lead to teacher licensure. These three concentration areas include: business education (BUED), family and consumer sciences (FCSE) and technology education (TEED). One other concentration in career and technical education: competency-based teacher development (CBTD) does not lead to teacher licensure.

SEE PAGE 324 FOR CAREER & TECHNICAL EDUCATION (CATE) COURSES.
Completion of the Bachelor of Science in Education degree has one concentration: licensure. This concentration is designed for students who wish to teach in a public school at the junior high or secondary level. Requirements for initial licensure may be met by completion of the B.S.E. degree. Students should meet with their adviser for information regarding additional licensure plans (ALP) and endorsements. Refer to the college academic regulations, admission process for initial licensure for other requirements.

I. University Core Requirements (page 40 of 2007 Catalog) 35-38

Every undergraduate student must meet the advanced composition requirement (See page 41)
9 hours Social Sciences must be PSYC 2003 General Psychology and ECON 2013 and ECON 2023
3 hours Math must be MATH 2053, Finite Math

II. BUED General Education Requirements 3

HLSC 1002 Wellness Concepts and PEAC 1621 Fitness Concepts or HLSC 1103 Personal Health and Safety

III. Professional Education 33

CIED 3023 Survey of Exceptionalities 3
CIED 3033 Classroom Learning Theory 3
CATE 1001 Practicum in Career & Technical Education 1
CATE 4003 Professionalism 3
CATE 4013 Teaching Strategies 3
CATE 4023 Classroom Management 3
CATE 4033 Assessment/Program Evaluation 3
CATE 4041 Lab Management 1
CATE 4051 Seminar 1
CATE 406V Teaching Internship 12

IV. Technical Requirements 53

WCOB 1012 Legal Environment of Business 2
WCOB 1023 Business Foundations 3
WCOB 1033 Data Analysis and Interpretation 3
WCOB 1120 Computer Competency Requirement 2
WCOB 2013 Markets and Consumers 3
WCOB 2023 Production and Delivery of Goods and Services 3
WCOB 2043 Acquiring and Managing Financial Resources 3
MKTG 3433 Principles of Marketing 3
CATE 4803 Problems in Career & Technical Education (Word Processing) 3
COMM 1313 Fundamentals of Communication 3
COMM 3703 Organizational Communications 3
MATH 1203 if required (see adviser) 3
Electives (see adviser for course list) 18-21
Total 124 hours are required by the University of Arkansas for a degree.

IV. Admission requirements for Spring, Senior Year:
1. Earn a cumulative GPA of 2.5 or higher
2. Passing scores on Praxis I
3. Take Praxis II subject matter
4. Successful interview with teacher education faculty in the Department of Curriculum and Instruction

Note: All students seeking licensure in the state of Arkansas are subject to a criminal background check. Forms for this procedure may be obtained at Peabody Hall, Room 117, at the State Department, or any police station, including the campus police. These background checks take up to six months to process; therefore, students are advised to complete and submit the forms to the proper authorities six months in advance of actually applying for a license. Arkansas will not certify anyone who has been convicted of a felony.

Business Education Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan in Career and Technical Education (teaching option) with a concentration in Business Education should see page 42 in the Academic Regulations chapter for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>Hours</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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<tr>
<td>†Fine Arts or Humanities</td>
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<tr>
<td>3 MATH 1203 – If required</td>
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</tr>
<tr>
<td>4 †Science with Lab</td>
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<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
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<td>†U. S. History</td>
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<td>3 PSYC 2003 General Psychology</td>
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<td>1 PEAC 1621 Fitness Concepts</td>
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<td>3 ECON 2013 Prin of Macroeconomics</td>
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<td>3 WCOB 1033 Data Analysis and Interpretation</td>
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<tr>
<td>3 WCOB 1012 Legal Environment of Business</td>
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<tr>
<td>2 HLSC 1002 Wellness Concepts</td>
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<td>3 CIED 3023 Survey of Exceptionalities</td>
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<tr>
<td>3 CIED 3033 Classroom Learning Theory</td>
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<tr>
<td>3 COMM 3703 Organizational Communication</td>
<td>3</td>
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<tr>
<td>3 ISYS 2263 Introduction to Information Systems Development</td>
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<td>3 WCOB 2023 Production and Delivery of Goods</td>
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<td>3 WCOB 2013 Markets and Consumers</td>
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<td>3 WCOB 2043 Acquiring and Managing Financial Resources</td>
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<td>3 MKTG 3433 Principles of Marketing</td>
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<td>3 CATE 4803 Problems in Career &amp; Technical Education (Word Processing)</td>
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<td>3</td>
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<td>3 CATE 4013 Teaching Strategies</td>
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<td>3 CATE 4023 Classroom Management</td>
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</table>
### Family and Consumer Sciences Education (FCSE)

Cecelia K. Thompson  
Adviser  
115 Peabody Hall  
479-575-2581

Students pursuing the Bachelor of Science in Education degree may select the family and consumer sciences education program concentration as a field of specialization in career and technical education.

Completion of the B.S.E. will prepare students to teach family and consumer sciences at the junior high and secondary education level or to prepare students to work in professional careers in the Cooperative Extension Service, business, industry, or social services.

In addition to the general studies, the following courses are required for a concentration in family and consumer sciences education.

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>ENGL 1013</td>
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<td>ENGL 1023</td>
<td>Composition II</td>
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<td>HESC 1013</td>
<td>Introduction to Clothing Concepts</td>
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<tr>
<td>HESC 1014</td>
<td>Foods I and Foods I Lab</td>
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<tr>
<td>HESC 1213</td>
<td>Nutrition</td>
<td>3</td>
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<tr>
<td>HESC 1214</td>
<td>Life Span Development</td>
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<td>HESC 2112/2111L</td>
<td>Foods I and Foods I Lab</td>
<td>3</td>
</tr>
<tr>
<td>HESC 2123</td>
<td>Catering Management or HESC 2203 Nutrition for Exercise and Sports</td>
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</tr>
<tr>
<td>HESC 2053</td>
<td>Intro. to Textile Science</td>
<td>3</td>
</tr>
<tr>
<td>HESC 2402/2401L</td>
<td>Infant and Toddler Development or HESC 2433, Child Development</td>
<td>3</td>
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</table>

### Admission Requirements for Spring, Senior Year:

1. Earn a cumulative GPA of 2.5 or higher  
2. Passing scores on Praxis I  
3. Take Praxis II  
4. Successful interview with career and technical education faculty in the Department of Curriculum and Instruction.

Note: All students seeking licensure in the state of Arkansas are subject to a criminal background check. Forms for this procedure may be obtained at Peabody Hall, Room 117, at the State Department, or any police station, including the campus police. These background checks take up to six months to process; therefore, students are advised to complete and submit the forms to the proper authorities six months in advance of actually applying for a license. Arkansas will not certify anyone who has been convicted of a felony.

### Family and Consumer Sciences Education Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan in Career and Technical Education with a concentration in Family and Consumer Sciences Education should see page 42 in the Academic Regulations chapter for university requirements of the program.

### Hours

<table>
<thead>
<tr>
<th>Semester</th>
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<th>Course Title</th>
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<td>College Algebra</td>
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<td>Life Span Development</td>
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<td>ETEC 2001/2002L</td>
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### Total Hours

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### Fall Semester Year 2

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<tr>
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<td>PSYC 2003</td>
<td>General Psychology</td>
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<td>HESC 4753</td>
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### Total Hours

16

### Spring Semester Year 2

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### Technical Requirements

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Fall Semester Year 3

3 HESC 3763L Family Resource Management Laboratory
3 HESC4453 Parenting and Family Dynamics
3 HESC 2402/2401L Infant and Toddler Development
3 CIED 3033 Classroom Learning Theory
3 HESC 3443 Families in Crisis
3 Elective
15 Semester Hours

Spring Semester Year 3

3 HESC 3423 Adolescent Development
3 HESC 4433 Dynamic Family Interaction
3 HESC 2433 Child Development
3 CATE 480V, Problems in CATE (Housing)
3-4 Elective
15-16 Semester Hours

Fall Semester Year 4

3 CIED 3023 Survey of Exceptionalities
3 CATE 4003 Classroom Management
3 CATE 4013 Teaching Strategies
3 CATE 4023 Classroom Management
3 CATE 4033 Assessment/Program Evaluation
15 Semester Hours

Spring Semester Year 4

1 CATE 4041 Lab Management
1 CATE 4051 Seminar
12 CATE 406V Teaching Internship (12 hours)
124 Total Hours

Internship Semester (Spring Semester/Senior Year) Admission Criteria:
1. Candidate must hold a cumulative GPA of 2.50 or higher
2. Candidate must have taken and passed the Praxis I examination during the previous semester or earlier
3. Candidate must have taken and passed the Praxis II content examination during the previous semester or earlier
4. Candidate must complete a successful “internship admission interview” with Career & Technical Education faculty. Note these interviews are scheduled with all senior students during the fall semester.

Note: All students seeking licensure in the State of Arkansas are subject to a criminal background check. Forms needed to complete this procedure may be obtained in Room 117 of Peabody Hall on the University of Arkansas campus. These forms may also be obtained from any police station (including the University of Arkansas Police station) or directly from the Arkansas State Department. These background checks take up to six months to process; therefore, students are advised to complete and submit the forms to the proper authorities at least six months in advance of graduation (or six months prior to applying for a teaching license). Arkansas will not grant a teaching license to anyone who has been convicted of a felony.

Technology Education Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan in Technology Education should see page 42 in the Academic Regulations chapter for university requirements of the program.

Fall Semester Year 1

3 ENGL 1013 Composition I
3 GNEG 1103 Introduction to Engineering
3 BENG 1012 Biological Engineering Design Fundamentals w/Lab
<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATE 1001 Practicum in Career &amp; Technical Education</td>
</tr>
<tr>
<td>GNEG 1122 Introduction to CAD</td>
</tr>
<tr>
<td>Mathematics Algebra if required/see advisor</td>
</tr>
<tr>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td>MEEG 1103 Introduction to Mechanical Engineering</td>
</tr>
<tr>
<td>CSCE 1013 College Computing Skills</td>
</tr>
<tr>
<td>TEED 1103 The Nature of Technology</td>
</tr>
<tr>
<td>MATH 2043 Survey of Calculus</td>
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</table>

<table>
<thead>
<tr>
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### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHEM 1103/1101L University Chemistry w/Lab</td>
</tr>
<tr>
<td>Fine Arts or Humanities</td>
</tr>
<tr>
<td>Technical Elective Course ***</td>
</tr>
<tr>
<td>TEED 2103 Technology &amp; Society</td>
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<table>
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### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2003 Advanced Composition (or exempt**)</td>
</tr>
<tr>
<td>If exempt take additional (3) Technical Elective Course***</td>
</tr>
<tr>
<td>INEG 3513 Manufacturing Design and Processes</td>
</tr>
<tr>
<td>TEED 3103 Tech. Research, Experimentation, &amp; Trouble-shooting</td>
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<tr>
<td>Fine Arts or Humanities</td>
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<tr>
<td>Social Science</td>
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<table>
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### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CIED 3023 Survey of Exceptionalities</td>
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<tr>
<td>CIED 3033 Classroom Learning Theory</td>
</tr>
<tr>
<td>TEED 3203 Information and Communications Systems</td>
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<tr>
<td>Technical Elective Course***</td>
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<td>Technical Elective Course***</td>
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<table>
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### Fall Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 3803 Basic Video Production</td>
</tr>
<tr>
<td>TEED 3303 Energy, Power, &amp; Transportation</td>
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<tr>
<td>PHYS 2013/201L College Physics w/Lab</td>
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<tr>
<td>Social Science</td>
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<tr>
<td>Technical Elective Course***</td>
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<table>
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### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>TEED 4103 Eng. Design for TE Capstone</td>
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<tr>
<td>CATE 4003 Professionalism</td>
</tr>
<tr>
<td>CATE 4013 Teaching Strategies</td>
</tr>
<tr>
<td>CATE 4023 Classroom Management</td>
</tr>
<tr>
<td>CATE 4033 Assessment &amp; Program Evaluation</td>
</tr>
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<table>
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<tr>
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### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
</tr>
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<tbody>
<tr>
<td>CATE 4041 Lab Management</td>
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<tr>
<td>CATE 4051 Seminar</td>
</tr>
<tr>
<td>CATE 406V Teaching Internship (12 hours)</td>
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<table>
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<th>Total Hours</th>
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### Spring Semester Year 4

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CATE 4041 Lab Management</td>
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<tr>
<td>CATE 4051 Seminar</td>
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</table>

<table>
<thead>
<tr>
<th>Total Hours</th>
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<tbody>
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<td>124</td>
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</table>

### COMPETENCY-BASED TEACHER DEVELOPMENT (CBTD)

**Charlie Rossetti**
Adviser
241 Graduate Education Building
479-575-3076

Competency-based Teacher Development (CBTD) Concentration
This concentration should be selected by incumbent (in-service) trade and technical instructors who desire to obtain a Bachelor of Science in Education degree or become certified as a master instructor in the post-secondary vocational and secondary school systems. CBTD concentration utilizes the online teacher development courses and is field-based.

### CHILDHOOD EDUCATION (ELED)

- Associate Professors Collier, Imbeau
- Clinical Associate Professor Eilers
- Assistant Professors, Kirkpatrick, Penner-Williams
- Clinical Assistant Professor Mounts
- Clinical Instructors Bell (K), Owen, Kerr, Kindall, Smith (D)
- Instructors Cronan Riggs (S)

The University of Arkansas offers the B.S.E. degree in elementary education licensure program, B.S.E. degree in childhood education, and the M.A.T. degree in childhood education. To be recommended for an initial teaching license in childhood education (pre-kindergarten through grade four) the student must either complete the B.S.E. licensure program or both the B.S.E. in childhood education and the M.A.T. degree programs. Information about the M.A.T. degree program in childhood education can be found in the Graduate School Catalog. Information about the B.S.E. degree in elementary education licensure program will be described later.

Academic Regulations for Childhood Education Majors and Others Seeking Admission to the Undergraduate Teacher Education Program

#### Stage I:
Sylvia Hack Boyer Center for Student Services Advisement
1. Enroll in the undergraduate B.S.E. program in childhood education.
2. Eligibility to enroll in subsequent program courses is contingent upon successful screening as well as meeting ALL Stage I requirements.
3. Obtain a grade of “C” or better in CIED 1002 and CIED 1011 (Introduction to Education/Practicum) and in MATH 1203 or higher.
4. Establish a GPA of 2.50 or better at the University of Arkansas or on transfer hours.
5. Pass Praxis I (required for enrollment in upper-division professional education courses).

#### Stage II:
Program Advisement
1. Register for and complete screening (attending required information session and participating in an oral interview with program faculty and providing a copy of the appropriate Praxis passing scores) in the first semester advised by childhood education program faculty.
2. Eligibility to enroll in subsequent program courses is contingent upon successful screening as well as meeting ALL Stage I requirements.
3. Establish a GPA of 2.7 or better.

#### Stage III:
Admission to Undergraduate Teacher Education Program
Eligibility to enroll in upper-division classes (CIED 3103, CIED 3113, CIED 3123, CIED 4153, CIED 3133, CIED 3143, CIED 4113, and CIED 4101) is based on successfully meeting all Stage II requirements and maintenance of 2.70 or better GPA.

**NOTE:** All professional education courses in CIED must have a grade of “C” or better. Passing appropriate Praxis scores and a GPA of 2.7 or better...
are required for enrollment in upper-division (senior year) professional education courses. No teaching methods courses may be taken by correspondence. Students must select either English as a Second Language (EASL) or Special Education (SPED) as a licensure endorsement to their P-4 teaching license. CIED 3103, 3113, 3123, and 4153 are offered in the fall only. CIED 4113, 3133, 3143, 4101 are offered in the spring semester only.

### Childhood Education Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ESL option</td>
<td>28-29</td>
</tr>
<tr>
<td>University Core</td>
<td>35-38</td>
</tr>
<tr>
<td>General Studies</td>
<td>18-19</td>
</tr>
<tr>
<td>Interdisciplinary Studies</td>
<td>33</td>
</tr>
<tr>
<td>Social Science (15 hours)</td>
<td>12</td>
</tr>
<tr>
<td>General Science (12 hours)</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics (in addition to MATH 1203)</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics course</td>
<td>3</td>
</tr>
<tr>
<td>History of American People to 1877</td>
<td>12</td>
</tr>
<tr>
<td>History of American People, 1877 to Present</td>
<td>12</td>
</tr>
<tr>
<td>Pre-Education Core</td>
<td>18</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>12</td>
</tr>
<tr>
<td>6 hours fine arts or humanities, 3 hours of which must meet university core requirements</td>
<td>12</td>
</tr>
<tr>
<td>Total for Childhood Education</td>
<td>124</td>
</tr>
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</table>

### Childhood Education Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ESL option</td>
<td>28-29</td>
</tr>
<tr>
<td>University Core</td>
<td>35-38</td>
</tr>
<tr>
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<tr>
<td>Interdisciplinary Studies</td>
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<td>Mathematics (in addition to MATH 1203)</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics course</td>
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<tr>
<td>History of American People to 1877</td>
<td>12</td>
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<tr>
<td>History of American People, 1877 to Present</td>
<td>12</td>
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<tr>
<td>Pre-Education Core</td>
<td>18</td>
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<tr>
<td>Aesthetics</td>
<td>12</td>
</tr>
<tr>
<td>6 hours fine arts or humanities, 3 hours of which must meet university core requirements</td>
<td>12</td>
</tr>
<tr>
<td>Total for Childhood Education</td>
<td>124</td>
</tr>
</tbody>
</table>
History (select one of the following):
HIST 2003 Hist/American People to 1877
HIST 2013 Hist/American People, 1877 to Present

Pre-Education Core
CIED 1002 Intro. to Education
CIED 1011 Intro. to Education Practicum
CIED 3023 Survey of Exceptionalities
ETEC 2001/2002L or any 3 hour computer course
CIED 3033 Classroom Learning Theory
CIED 3103 Children's Literature
CIED 3113 Emergent and Developmental Literacy

Aesthetics
6 hours arts or humanities, 3 hours of which must meet
university core requirements
CIED 4513 Teaching Children with Mild Disabilities
CIED 4523 Teaching Children with Severe Disabilities

Total for Childhood Education 124

Childhood Education Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the
program.

ENGL 2003 Advanced Composition is required unless exemption is
 gained in one of three ways, either by demonstrating a satisfactory writing ability
on the Advanced Composition Exemption Examination, by completing ENGL 2013, or by achieving a grade of “A” or “B” in ENGL 1013 and a grade
of “A” in ENGL 1023 in courses taken at University of Arkansas.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>†ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>†ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 1203 College Algebra (or higher)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIOL 1543/1541L Principles of Biology w/lab or GEOL 1113/1111L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>HESC 1002 Wellness Concepts or HLSC 1103</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PEAC1621 Fitness Concepts</td>
<td>1</td>
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<tr>
<td></td>
<td>PLSC 2003 American Nat'l Gov't or HIST 2003 or 2013</td>
<td>1</td>
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<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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</tr>
<tr>
<td>Spring</td>
<td>†ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 2213 Math Structures I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>GEOL 1113/1111L General Geology w/lab or BIOL 1543/1541L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>†CIED 1002 Introduction to Education</td>
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<tr>
<td></td>
<td>†CIED 1011 Practicum</td>
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<tr>
<td></td>
<td>PSYC 2003 General Psychology</td>
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<td></td>
<td><strong>Semester Hours</strong></td>
<td>16</td>
</tr>
<tr>
<td>Fall</td>
<td>Fine Arts or Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HESC 2433 Child Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>†CIED 3023 Survey of Exceptionality</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HIST 2003 or 2013 or PLSC 2003</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>†COMM 1313 Fundamentals of Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
<td>15</td>
</tr>
<tr>
<td>Spring</td>
<td>Physical Science w/lab</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ETEC 2001/2002L Educational Technology/lab</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>MATH 2223 Math Structures II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>†CIED 3033 Classroom Learning Theory</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
<td>15</td>
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<tr>
<td>Fall</td>
<td>HIST 3383 Arkansas &amp; the Southwest</td>
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<tr>
<td></td>
<td>ECON 3053 Economics for Elem. Teachers or any economics course</td>
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<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
<td>16</td>
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</tbody>
</table>

† A grade of C or better is required for these courses
* 2.7 GPA cumulative and pass PRAXIS I required for these courses

M.A.T. Degree Program Requirements
ELT option
Required Courses for the M.A.T. Core 10
CIED 5013 Measurement/Research/Statistical Concepts for Teachers
CIED 5022 Classroom Management Concepts for Teachers
CIED 5032 Curriculum Design Concepts for Teachers
CIED 5943 Teaching People of Other Cultures

Additional Program Requirements 23
CIED 5003 Childhood Seminar
CIED 5073 Case Study in Childhood Education
CIED 5173 Literacy Assessment
CIED 5183 Readings in Early Childhood Education
CIED 5162 Applied Practicum
CIED 508V Childhood Ed. Cohort Teaching Internship (6 hours)
CIED 5953 Secondary Language Assessment

M.A.T. Degree Program Requirements
SPED option
Required Courses for the M.A.T. Core 10
CIED 5013 Measurement/Research/Statistical Concepts for Teachers
CIED 5022 Classroom Management Concepts for Teachers
CIED 5032 Curriculum Design Concepts for Teachers
CIED 5943 Teaching People of Other Cultures

124 Total Hours
Additional Program Requirements
- CIED 5003 Childhood Seminar
- CIED 5073 Case Study in Childhood Education
- CIED 5183 Readings in Early Childhood Education
- CIED 5162 Applied Practicum
- CIED 508V Childhood Ed. Cohort Teaching Internship
- CIED 5343 Applied Classroom Management
- CIED 5873 Assessment of Exceptional Students

NOTE: Enrollment in the M.A.T. with an emphasis in childhood education is limited. A passing score on the appropriate Praxis test is a requirement to begin the M.A.T. A passing score on an additional Praxis test is a requirement to graduate from the M.A.T. (Students must consult with their advisers to determine the appropriate Praxis exams to take for admission and graduation.) Other specific application procedures and selection criteria are available in the Department of Curriculum and Instruction, 214 Peabody Hall or from childhood education faculty advisers.

**ELEMENTARY EDUCATION (EEL)**

TaySha Carter
Adviser
479-619-4304
trcarter@uark.edu

The Department of Curriculum and Instruction also offers the B.S.E. in elementary education licensure program. Students enrolled in this program typically complete their first two years of study on another campus prior to admission to the program. The final two years of the program are University of Arkansas courses offered at an off-campus location.

**Elementary Education Requirements:**

**Pre-Requisites** – These courses are required for Associate of Arts in Teaching degree (A.A.T.) from Northwest Arkansas Community College (NWACC):

Courses in parentheses to the right of the University of Arkansas course below are the course pre-fixes and numbers of NWACC equivalents.

- ARHS 1003 Art Appreciation OR ARTS 1003 Art Studio (ART 1033)
- BIOL 1543/1541L Principles of Biology/lab (BIOL 1544)
- CHED 1003 Foundations & Theories in Early Childhood Education
- CIED 1002 Introduction to Education
- CIED 1011 Practicum (CIED 1001)
- COMM 1313 Fundamentals of Communication
- ENGL 1013 Composition I
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition must be taken at U of A if not exempted
- GEOG 1123 Human Geography
- HESC 2433 Child Development (CHED 2033)
- HIST 2003 or 2013 U.S. History
- MATH 1203 College Algebra
- MATH 2213 Math Structures I
- MATH 2223 Math Structures II
- PLSC 2003 American Government
- PSYC 2003 General Psychology
- WLIT 1113 or WLIT 1123 World Literature I or II (ENGL 2213 or ENGL 2223)
- Any 4-hour physical science course with lab that satisfies University of Arkansas core
- 6 hours of transferable electives (3-hours must be WCIV 1003 or WCIV 1013 Western Civ. I or II to meet A.A.T. degree. The University of Arkansas codes for those courses are HIST 1003 and HIST 1013, Institutions and Ideas of Western Civilization I and II)

**U of A Childhood Education Courses**
- ARED 3603 Public School Art
- CIED 3023 Survey of Exceptionalities
- CIED 3033 Classroom Learning Theory
- CIED 3003 Early Childhood Education
- CIED 3001 Practicum
- CIED 3103 Children's Literature
- CIED 3123 Mathematics Methods
- CIED 3113 Emergent & Developmental Literacy
- CIED 3143 Teaching Science
- CIED 3133 Integrated Social Studies
- CIED 4101 Practicum
- CIED 3263 Language Development for Educators
- CIED 4143 Curriculum Design
- CIED 4323 Instructional Design for Teachers
- CIED 4173 Student Teaching (two semesters)
- CIED 4153 Classroom Management
- CIED 4133 Research, Measurement, & Readings
- CIED 4163 Senior Project
- CIED 4003 Elementary Seminar
- CIED 4423 Teaching a Second Language

Total 124 Hours

**Elementary Education Nine-Semester Degree Program**

The first two years of classes are taken at NorthWest Arkansas Community College.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1013 English Composition I</td>
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</tr>
<tr>
<td>4 MATH 1204 College Algebra</td>
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</tr>
<tr>
<td>4 BIOL 1543/1541L Principles of Biology/lab</td>
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</tr>
<tr>
<td>3 CHED 1003 Foundations &amp; Theories in Early Childhood Education</td>
<td></td>
</tr>
<tr>
<td>1 CIED 1001 Practicum</td>
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</tr>
<tr>
<td>3 PSYC 2003 General Psychology</td>
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<tr>
<td>2 HLSC 1002 Wellness Concepts</td>
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Semester hours: 17

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<thead>
<tr>
<th>Spring Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1023 English Composition II</td>
<td></td>
</tr>
<tr>
<td>3 HIST 2053 History of Arkansas</td>
<td></td>
</tr>
<tr>
<td>3 MATH 2213 Math Structures I</td>
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</tr>
<tr>
<td>2 CIED 1002 Introduction to Education</td>
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</tr>
<tr>
<td>1 CIED 1001 Practicum</td>
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<tr>
<td>3 PSYC 2003 General Psychology</td>
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<tr>
<td>2 HLSC 1002 Wellness Concepts</td>
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Semester hours: 17

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<thead>
<tr>
<th>Fall Semester Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ARHS 1003 Art Appreciation* or ART 1033 Intro to Art Studio</td>
<td></td>
</tr>
<tr>
<td>4 PHS 1034 or PHSC 2004 or 4-hour physical science course with lab</td>
<td></td>
</tr>
<tr>
<td>3 HISTS 1003 or 2013 U.S. History</td>
<td></td>
</tr>
<tr>
<td>3 MATH 2223 Math Structures II</td>
<td></td>
</tr>
<tr>
<td>3 Transferable Elective</td>
<td></td>
</tr>
</tbody>
</table>

Semester hours: 16

248
### SECONDARY EDUCATION (SEED)

- Professors Farah, McComas, Totten
- Associate Professors Kent, Lincoln, Wavering
- Assistant Professors Bowles, Goering

#### Secondary Schools Program

The Masters of Arts in Teaching (M.A.T.) is a degree program of 33-34 semester hours. The M.A.T. degree is the initial teacher licensure program for students at the University of Arkansas. Students licensing to teach in grades 7-12 will receive a degree from the J. William Fulbright College of Arts and Sciences with a specialization in one of the following areas: anthropology, biology, chemistry, communication, drama, economics, English, foreign language, geography, geology, history, journalism, mathematics, physics, political science, psychology, sociology, or any other appropriate degree.

#### Admission Requirements

Prerequisites to the M.A.T. Degree Program: Meeting or exceeding minimum requirements does not guarantee acceptance into the M.A.T. program. Admission requirements for the M.A.T. degree program for initial licensure are as follows:

1. Completion of an appropriate undergraduate degree program
2. Cumulative GPA of 3.0 on last 60 undergraduate hours
3. Admission to the Graduate School
4. Admission to Teacher Education Program and admission interview
5. Completion of all prerequisite courses in teaching field
   - Completion of CIED 4023 Teaching in Inclusive Secondary Settings and CIED 4131 Practicum in Secondary Education. Competency in use of technology (see program for requirements).
6. Payment of internship fee

Refer to list of steps and deadlines for acceptance into the Secondary Education M.A.T. program, available at the College of Education and Health Professions Web site under Graduate Degree Programs.

#### Online delivery of M.A.T.

Online delivery of the Master of Education in special education can be found in the University of Arkansas Graduate School Catalog.

### SPECIAL EDUCATION (SPED)

- Professors Gartin, Smith (T)
- Associate Professors Collins, Imbeau
- Clinical Instructor Jordan
- Visiting Professor Murdick

State licensure requirements for special education changed effective January 1, 2002. The University of Arkansas no longer offers an undergraduate degree in special education. Information regarding the online delivery of the Master of Education in special education can be found in the University of Arkansas Graduate School Catalog.

#### Graduate Certificate Offered:

Autism Spectrum Disorders
EDUCATIONAL LEADERSHIP (EDLE)

- Associate Professors Elliott, Holt
- Assistant Professors Kimbrell, Pijanowski, Hewitt
- Visiting Assistant Professor Gooden

The Educational Leadership program offers three graduate degrees. The Masters of Education degree (M.Ed.) is a degree program consisting of 33 hours of course work and practical application. Upon completion the student will qualify for licensure, which will enable them to serve as an elementary middle or high school principal. Courses include: School Organization and Administration; The School Principalship; School Law; Instructional Leadership, Planning, and Supervision; Internship; Analytical Decision Making; Ethical Leadership; Research for School Leaders; Psychology of Learning; and one course from a four course core. The Education Specialist (Ed.S.) is a degree program requiring and additional 30 units beyond the Masters program. This program qualifies the student to receive licensure to serve as a school district central office administrator, including the superintendency. The Doctor of Education program (Ed.D.) is a degree program requiring 33 units beyond the Education Specialist or 63 units beyond the Master of Education degree and also qualifies the individual to receive licensure as a school district administrator including the superintendency.

SEE PAGE 341 FOR EDUCATIONAL LEADERSHIP (EDLE) COURSES

EDUCATIONAL TECHNOLOGY (ETEC)

- Associate Professor Murphy

The Educational Technology program offers a master's degree. The Masters of Education degree (M.Ed.) in Educational Technology is a 33-hour online master's program. Focusing on instructional design, training and development, media production, teacher education, and utilization of instructional technologies, a master's degree in Educational Technology prepares students for professional positions as educational technologists in education, business, government and the health professions. Courses include: Introduction to Educational Media; Instructional Design Theories and Models; Principles in Visual Literacy; Web Design; Distance Learning; Strategic Planning; and two elective courses from Educational Technology.

SEE PAGE 348 FOR EDUCATIONAL TECHNOLOGY (ETEC) COURSES

EDUCATIONAL STATISTICS AND RESEARCH METHODS (ESRM)

- Professors Denny, Lucas, Mulvenon, Stegman
- Associate Professor Turner

The Education Statistics and Research Methods (ESRM) program offers several graduate programs. The Master of Science (M.S.) degree provides an opportunity to master skills in the areas of research methods, educational psychology, and policy studies with the focus of applying these skills in real-world settings, including school districts, educational agencies, and industries with internal data analysis needs. The Doctor of Philosophy (Ph.D.) degree develops professionals in the area of educational statistics and research methods, preparing them for employment in higher education; local, state, and national educational agencies; research and policy organizations; and industries with internal data analysis needs.

The four graduate certificates offered in ESRM are Educational Statistics and Research Methods, Educational Measurement, Educational Program Evaluation, and Educational Policy Studies. Each certificate requires 18 hours of specified graduate coursework in the respective field of study.

SEE PAGE 347 FOR EDUCATIONAL STATISTICS AND RESEARCH METHODS (ESRM) COURSES

EDUCATION REFORM (EDRE)

Jay P. Greene
Department Head and Endowed Chair in Education Reform
201 Graduate Education Building
479-575-3172
jkg@uark.edu
- Endowed Chair in Education Reform Greene
- Endowed Chair in Education Policy Ritter
- Endowed Chair in School Choice Wolf
- Endowed Chair in Accountability Costrell
- Endowed Chair in Teacher Quality Stotsky

The Department of Education Reform (EDRE) is a new department in the College, established on July 1, 2005. The department has six endowed professorships, ten doctoral fellowships, and funds for research and projects.

The mission of the Department of Education Reform is to advance educational research and economic development in Arkansas and nationwide by focusing on the improvement of K-12 schools. The department is committed to producing and disseminating high-quality research that will inform policymakers, scholars, parents, teachers, administrators and the general public about policies and practices that could improve the performance of schools in Arkansas and nationwide. By gathering a critical mass of leading researchers focused on education reform, the Department of Education Reform will be uniquely positioned to have a meaningful impact on education policy research and the quality of schools.

ELEANOR MANN SCHOOL OF NURSING (NURS)

Tom Kippenbrock
Director
217 Ozark Hall
479-575-3904
nursing@uark.edu
- Professors Kippenbrock, Neighbors
- Associate Professors Barta, Smith-Blair
- Clinical Associate Professor Lawson
- Instructors Agana, Buron, Harris, Malm, Miller, Odell, Scott, Sisson

The Eleanor Mann School of Nursing at the University of Arkansas prepares students to enter the professional practice of nursing and/or pursue graduate-level nursing education. The curriculum provides the student with a theoretical base to practice professional nursing with diverse clients in various settings through the roles of caregiver, manager, and teacher. The program of study has been designed to emphasize one or more of these roles in each nursing course. Graduates of the program are eligible to apply to take the NCLEX examination for licensure as a registered nurse (R.N.). Persons convicted of a crime may not be eligible to take the NCLEX examination. A criminal background check is required before graduation and reported to the Arkansas State Board of Nursing as part of the procedures for application for licensure. The Bachelor of Science in Nursing degree (B.S.N.) is awarded after successful completion of the nursing curriculum.
ADMISSION TO THE B.S.N. PROGRAM

Admission Policies
Admission to the B.S.N. program is limited. Final approval for admission will be determined by the Eleanor Mann School of Nursing faculty. Requirements for admission into the professional program of study are as follows:

1. Overall minimum grade-point average (GPA) of 2.75. Transfer GPA will be factored in if it is to the student’s benefit. If the UA GPA is based on at least 12 hours of study and is greater than the transfer GPA, the UA GPA will be used. The transfer GPA will be factored in if the student has less than 12 hours at the University of Arkansas.
2. Students will be ranked according to GPA for admission to the program.
3. Applications for admission must be submitted by December 1 to be considered for fall semester admission and by June 15 for spring semester admission. Late applications will be considered on a space-available basis.
4. All pre-requisite requirements must be completed prior to beginning the nursing professional program of studies. Students applying for a spring semester admission must have all pre-requisites completed by the end of the preceding fall semester; students applying for a fall semester admission must have all pre-requisite courses completed by the end of the preceding summer semester. Additionally, the student must maintain the required 2.75 minimum GPA.
5. Students transferring from another nursing program must be eligible to return to that program to be considered for admission.
6. Students must meet the performance standards for the professional program of study.
7. CPR certification (American Heart Association program) is required.
8. The completed Hepatitis B vaccine series and Diphtheria-Tetanus (DT) must be verified.
9. Negative Tuberculin skin test or X-ray is required.
10. Diphtheria-Tetanus (DT) required.
11. Health and liability insurance is required (check with the School of Nursing).
12. A criminal background check with fingerprinting is required and reported to the Arkansas State Board of Nursing.
13. Some clinical agencies require students to complete a negative drug screening and criminal background check before students can be placed in the agency. To complete appropriate clinical experiences, students will have to comply with these requirements.

R.N. to B.S.N. Admission Policies
1. College admission requirements.
2. Eleanor Mann School of Nursing admission policies.
3. Completion of an Arkansas State Board approved LPN or LPTN program or an NLNAC accredited out-of-state program.
4. Review of nursing courses for transfer credit by the School of Nursing.
5. Proof of, and maintenance of, an unencumbered license to practice as an LPN or LPTN in the state of Arkansas.
6. Advanced placement may vary based on the length of time since completion of the LPN or LPTN and the length of time of (or since) nursing employment.
7. Credit for courses listed below will be held in escrow. The student will receive credit for these courses upon successful completion of the program.
8. Students may receive credit for NURS 3634/3643 through validation examination.

L.P.N./L.P.T.N. to B.S.N. admission policies
1. College admission requirements.
2. Eleanor Mann School of Nursing admission policies.
3. Completion of an Arkansas State Board approved LPN or LPTN program or an NLNAC accredited out-of-state program.
4. Review of nursing courses for transfer credit by the School of Nursing.
5. Proof of, and maintenance of, an unencumbered license to practice as an LPN or LPTN in the state of Arkansas.
6. Advanced placement may vary based on the length of time since completion of the LPN or LPTN and the length of time of (or since) nursing employment.
7. Credit for courses listed below will be held in escrow. The student will receive credit for these courses upon successful completion of the program.
8. Students may receive credit for NURS 3634/3643 through validation examination.

Performance Standards for Admission to and Progression in the Professional Program of Study
Professional nurses must have the knowledge and ability to completely assist the biological, psychological, intellectual, social, and spiritual dimensions of the client. After acceptance, but before admission to the B.S.N. program, students must show documentation for current certification in cardiopulmonary resuscitation (CPR) for health-care providers (American Heart Association course). This requires the ability to successfully complete both the written and practical tests for certification. In addition, students admitted to the Eleanor Mann School of Nursing must meet the following abilities and expectations during their enrollment in the program:

1. Critical Thinking. Student nurses must be able to analyze data, explore interpretations, generate hypotheses, select actions, and evaluate outcomes related to nursing care of clients. In addition, applicants must be able to problem solve.
2. Psychomotor. Student nurses must be able to perform the following:
   a. assess clients through auscultation, percussion, palpation, and other diagnostic maneuvers.
   b. manipulate equipment necessary to assist the client to desired outcomes.
   c. lift and move clients to provide safe care and emergency treatment.
   d. perform cardiopulmonary resuscitation (CPR).
   e. perform independently of others.
   f. possess cognitive abilities to measure, calculate dosages, reason, analyze, and synthesize.
3. Communication. Student nurses must be able to perform the following:

   a. assess clients through auscultation, percussion, palpation, and other diagnostic maneuvers.
   b. manipulate equipment necessary to assist the client to desired outcomes.
   c. lift and move clients to provide safe care and emergency treatment.
   d. perform cardiopulmonary resuscitation (CPR).
   e. perform independently of others.
   f. possess cognitive abilities to measure, calculate dosages, reason, analyze, and synthesize.

   a. assess clients through auscultation, percussion, palpation, and other diagnostic maneuvers.
   b. manipulate equipment necessary to assist the client to desired outcomes.
   c. lift and move clients to provide safe care and emergency treatment.
   d. perform cardiopulmonary resuscitation (CPR).
   e. perform independently of others.
   f. possess cognitive abilities to measure, calculate dosages, reason, analyze, and synthesize.

   a. assess clients through auscultation, percussion, palpation, and other diagnostic maneuvers.
   b. manipulate equipment necessary to assist the client to desired outcomes.
   c. lift and move clients to provide safe care and emergency treatment.
   d. perform cardiopulmonary resuscitation (CPR).
   e. perform independently of others.
   f. possess cognitive abilities to measure, calculate dosages, reason, analyze, and synthesize.
a. receive, translate, and import information by oral and written means according to standards of the English language and safe nursing practice.
b. speak, hear, visually observe clients, and interpret non-verbal behavior.
c. effectively communicate verbally and in writing with all health care providers.

4. Behavioral/Social Attributes. Students are required to have social skills and emotional health sufficient to provide safe, therapeutic care. The ability to function in stressful environments and meet physically and mentally stressful demands is essential. The study and practice of nursing requires strong emotional, intellectual, and physical capabilities. It is important for prospective nursing students to have a realistic view of the demanding curriculum before they decide to pursue the degree. Prospective students are encouraged to contact the School of Nursing if they have questions about their ability to function in the clinical settings.

Progression, Probation, Suspension, Withdrawal, and Dismissal
1. Any nursing course in which a letter grade of “D” or lower is received must be repeated before the student progresses (Repetition of courses depends on clinical space available).
2. Students who receive a grade of “D” or lower or withdraw from any nursing course for any reason must petition the school’s Undergraduate Admission Committee for readmission to the nursing program no later than fourteen (14) days prior to the semester the student intends to re-enter. Final decisions for readmission rests with the nursing faculty.
3. Junior Progression Exam Requirement (Students should contact their adviser for details).
4. Senior Progression Exam Requirement (Students should contact their adviser for details).
5. Students are limited to one petition for readmission. Readmission is limited by space availability.
6. Students who are dismissed from any clinical course will be suspended from all clinical courses until the dismissal is reviewed by the faculty of the school (Suspension means the student will not be permitted to attend any clinical assignment until the school reviews the issue).

Readmission Policies
Any student whose enrollment in the professional program of study has been interrupted may seek readmission following the steps below:
1. Seek readmission into the University of Arkansas (if applicable).
2. Complete Readmission Application to the School of Nursing the semester prior to the semester of intended re-entry into the program (Readmission is limited by space availability).
3. If the student’s enrollment was interrupted to attend another college, the University’s transfer student admission policies would also apply for readmission.

Exit Policies
1. Students must complete the requirements for the degree within five years of enrolling in the first upper-division nursing course. If the student does not complete the Professional Program of Study within the five-year limit, nursing credits must be reevaluated.
2. All University of Arkansas and college requirements must be met.
NOTE: In addition to the program requirements, students must meet the University and college graduation requirements. This curriculum is subject to change to comply with national accreditation and the Arkansas State Board of Nursing Standards.

Requirements for Bachelor of Science in Nursing

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>University Core See Page 40</td>
<td>35-38</td>
</tr>
<tr>
<td>Sciences with Labs (8 hours) must include</td>
<td></td>
</tr>
<tr>
<td>CHEM 1074/1071L Fundamentals of Chemistry or CHEM</td>
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<tr>
<td>BIOL 1103/1101L University Chemistry I</td>
<td></td>
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<tr>
<td>BIOL 1543/1541L Principles of Biology</td>
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<tr>
<td>Fine Arts/Humanities (6 hours)</td>
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<tr>
<td>3 hours must include one of the following courses: PHIL 2003 Intro to Philosophy; PHIL 2103 Intro to Ethics; PHIL 2203 Logic; or PHIL 3103 Ethics and the Professions</td>
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<tr>
<td>Social Sciences (9 hours)</td>
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<tr>
<td>HESC 1403 Lifespan Development</td>
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<tr>
<td>6 hours elective Social Sciences</td>
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<tr>
<td>Additional General Studies</td>
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<tr>
<td>EDFD 2403 Statistics in Nursing, or</td>
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<tr>
<td>PSYC 2013 Intro. to Statistics for Psych or STAT 2303 Prin of Statistics</td>
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<tr>
<td>BIOL 2013/2011L General Microbiology</td>
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<tr>
<td>BIOL 2213/2211L Human Physiology</td>
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<tr>
<td>BIOL 2443/2441L Human Anatomy</td>
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<tr>
<td>3 hours Core History/Government</td>
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<tr>
<td>MATH 1203 College Algebra</td>
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<tr>
<td>ENGL 1013 English Composition I</td>
<td></td>
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<tr>
<td>ENGL 1023 English Composition II</td>
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<tr>
<td>ENGL 2003 Advanced Composition</td>
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<tr>
<td>1-7 elective hours (as needed)</td>
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<tr>
<td>NURS 2012 Nursing Informatics</td>
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<tr>
<td>NURS 2022 Intro. To Professional Nursing Concepts</td>
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<tr>
<td>NURS 2032 Therapeutic Comm.</td>
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<tr>
<td>Professional Nursing Program</td>
<td>60</td>
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<tr>
<td>Role Development (Level I)</td>
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<tr>
<td>NURS 3212 Teaching and Health Promotion</td>
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<tr>
<td>NURS 3313 Pharmacology in Nursing</td>
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<td>NURS 3314 Pathophysiology</td>
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<tr>
<td>NURS 3321L Health Assessment</td>
<td></td>
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<tr>
<td>NURS 3422 Nursing Concepts: Foundations of Professional Practice</td>
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<tr>
<td>NURS 3424 Professional Role Implementation I: Caregiver</td>
<td></td>
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<tr>
<td>Role Concentration (Level II)</td>
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<tr>
<td>NURS 3634 Nursing Concepts: Adult Health and Illness</td>
<td></td>
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<tr>
<td>NURS 3643 Professional Role Implementation II: Caregiver</td>
<td></td>
</tr>
<tr>
<td>NURS 3742 Nursing Concepts: Mental Health/Illness</td>
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<tr>
<td>NURS 3752 Professional Role Implementation III: Caregiver</td>
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<tr>
<td>NURS 3841L Professional Nursing Skills: Advanced</td>
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<tr>
<td>NURS 3842 Research in Nursing</td>
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<tr>
<td>NURS 4154 Nursing Concepts: Children and Family</td>
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<tr>
<td>NURS 4164 Professional Role Implementation IV: Teacher</td>
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<tr>
<td>NURS 4242 Management in Nursing</td>
<td></td>
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<tr>
<td>NURS 4263 Nursing Concepts: Older Adult Health/Illness</td>
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<tr>
<td>NURS 4273 Professional Role Implementation V: Manager</td>
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<tr>
<td>Role Synthesis (Level III)</td>
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<tr>
<td>NURS 4443 Nursing Concepts: Critical Care</td>
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<tr>
<td>NURS 4453 Professional Role Implementation VI: Role Synthesis</td>
<td></td>
</tr>
<tr>
<td>NURS 4603 Nursing Concepts: Community</td>
<td></td>
</tr>
</tbody>
</table>
NURS 4613 Professional Role Implementation VII:  
Role Synthesis  
NURS 4712 Seminar in Nursing  
Total for Nursing 124

Note: The minimum number of hours required to receive a baccalaureate degree at the University of Arkansas is 124 semester hours. The Nursing major is exempt from the eight-semester degree plan as required by Act 1014 since the program is admissions-based. There is no guarantee that a student meeting the minimal GPA requirement will be admitted; however, please refer to the College of Education and Health Professional's Web site at http://coehp.uark.edu/ for specific information related to the admission criteria.

HEALTH SCIENCE, KINESIOLOGY, RECREATION, AND DANCE

Sharon Hunt  
Department Head  
306 HPER Building  
479-575-2857  
sbhunt@uark.edu

Dean Gorman  
Assistant Department Head  
308W HPER Building  
479-575-6625  
dgorman@uark.edu

The department offers programs leading to the B.S.E. degree with major emphasis in health science, kinesiology, or recreation.

DANCE ACTIVITY (DEAC)

• Instructor Mayes  
See page 338 for Dance Activity (Deac) Courses

HEALTH SCIENCE (HLSC)

• Professor Jones (C.)  
• Clinical Assistant Professor Williams  
• Visiting Assistant Professor Mink, Wyandt

The program in health science is designed to prepare candidates for a variety of career options in the vast field of health education and health promotion. Career opportunities may include planning, development, and delivery of health programs in various settings. These settings may include hospitals, government agencies, non-profit organizations, community organizations, corporations, and other places of occupation. Graduates of this program should be well prepared to enter the workforce at an entry level position in community health or graduate programs of study in such areas as health education and health promotion, corporate health, public health, health care administration, and other allied health professional schools.

The candidate for the Bachelor of Science in Education degree with a major in health science will focus on community health. All students must complete the University Core requirements as listed on page 40. In addition, all students must take the courses listed below under required general studies for the health science major and the additional health science major requirements. A minimum of 127 semester hours is required for graduation in the major of health science.

Curriculum for a Major in Health Science

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Minimum Core (See page 40)</td>
<td>35-38</td>
</tr>
<tr>
<td>English</td>
<td>6-9</td>
</tr>
<tr>
<td>ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>ENGL 2003 Advanced Composition (exemption by examination or credit in ENGL 201 or grade of at least “B” in ENGL 1013 and “A” in ENGL 1023 at Fayetteville campus)</td>
<td></td>
</tr>
<tr>
<td>If the student exempts from ENGL 2003, three additional credit hours of electives must be taken to meet the graduation credit-hour requirements.</td>
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<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1203 College Algebra or higher, depending on specific concentration requirements</td>
<td></td>
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<tr>
<td>Science</td>
<td>8</td>
</tr>
<tr>
<td>See specific concentration requirements</td>
<td></td>
</tr>
<tr>
<td>Fine Arts/Humanities</td>
<td>6</td>
</tr>
<tr>
<td>See page 40 for listing of approved courses</td>
<td></td>
</tr>
<tr>
<td>U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2003 History of American People to 1877 or HIST 2013 History of American People 1877 to Present or PLSC 2003 American National Government</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>9</td>
</tr>
<tr>
<td>PSYC 2003, General Psychology</td>
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<tr>
<td>SOCI 2013 General Sociology</td>
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<tr>
<td>3 hours Social Science core requirement</td>
<td></td>
</tr>
<tr>
<td>Required general studies for the Health Science Major</td>
<td>13</td>
</tr>
<tr>
<td>BIOL 1543/1541L Principles of Biology (hours counted in State Minimum core)</td>
<td></td>
</tr>
<tr>
<td>CHEM 1103/1101L University Chemistry I (Hours counted in State Minimum Core) and CHEM 1123/1121L University Chemistry II or CHEM 1074/1071L Fundamentals of Chemistry</td>
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</tr>
<tr>
<td>Literature Elective (3 hours)</td>
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<tr>
<td>COMM 1313 Fundamentals of Communication Computer Course (3 hours adviser approved)</td>
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<tr>
<td>HLSC 1103 Personal Health and Safety</td>
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<tr>
<td>PEAC 1621 Fitness Concepts</td>
<td></td>
</tr>
<tr>
<td>Health Science Major Requirements</td>
<td>77</td>
</tr>
<tr>
<td>HESC 1213 Nutrition in Health</td>
<td></td>
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<tr>
<td>HLSC 1203 Prevention of Drug Abuse</td>
<td></td>
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<tr>
<td>HLSC 1303 Introduction to Human Sexuality</td>
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<tr>
<td>HLSC 2613 Foundation of Community Health</td>
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<tr>
<td>HLSC 2662 Terminology/Health Professions</td>
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<tr>
<td>HLSC 3633 First Responder ñ First Aid</td>
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<tr>
<td>HLSC 3643 Community Health Plan/Promotion</td>
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<tr>
<td>HLSC 3663 Principles/Practice of Mental Health</td>
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<tr>
<td>HLSC 3683 Health Care Consumerism</td>
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<tr>
<td>HLSC 404V Community Health Preceptorship (6 hours)</td>
<td></td>
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<tr>
<td>HLSC 4603 Application of Health Behavior Theories for Health Education</td>
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<tr>
<td>HLSC 4623 Human Diseases</td>
<td></td>
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<tr>
<td>JOUR 1033 Fundamentals of Journalism</td>
<td></td>
</tr>
<tr>
<td>BIOL 2013/2011L General Microbiology</td>
<td></td>
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<tr>
<td>PSYC 3093 Developmental Psychology</td>
<td></td>
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<tr>
<td>PSYC Elective except PSYC 2003 (3 hours)</td>
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<tr>
<td>BIOL 1603/1601L Principles of Zoology and Lab, or BIOL 1613/1611L Plant Biology and Lab</td>
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<tr>
<td>BIOL 2213/2211L Human Physiology</td>
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</table>

University of Arkansas, Fayetteville
BIOL 2443/2441L Human Anatomy
SCWK 3163 On Death and Dying
PSYC 4023 Adulthood and Aging, or SCWK 4183 The Elderly Citizen

Health science electives (4 hours; adviser approved)

Total Health Science degree 124-128

Health Science Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan for the Health Science major should see page 42 in the Academic Regulations chapter for university core requirements.

Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
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<tr>
<td>MATH 1203 College Algebra (or higher)</td>
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<tr>
<td>†U.S. History</td>
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<tr>
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Spring Semester Year 1

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<tr>
<td>PEAC 1621 Fitness Concepts</td>
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<tr>
<td>HLSC 2613 Foun of Comm Hlth</td>
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<tr>
<td>HESC 1213 Nutrition in Health</td>
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Fall Semester Year 2

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<tr>
<td>JOUR 1033 Fundamentals of Journalism</td>
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Spring Semester Year 2

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<td>SOCI 2013 General Sociology</td>
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<tr>
<td>HLSC 1103 Introduction to Human Sexuality</td>
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<tr>
<td>COMM 1313 Fundamentals of Communications</td>
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<tr>
<td>BIOL 1603/1601L General Zoology w/Lab or BIOL 1613/1611L Plant Biology w/Lab</td>
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<tr>
<td>HLSC 4623 Human Diseases or HLSC 4603 Appl Hlth Behav Theo in Hlth Ed</td>
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<td>PSYC 3093 Developmental Psychology</td>
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Spring Semester Year 3

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<td>BIOL 2443/2441L Human Anatomy w/lab</td>
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<tr>
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Fall Semester Year 4

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<td>BIOL 2213/2211L Human Physiology w/lab</td>
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<td>Health Science Elective (recommend HLSC 4613)</td>
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Spring Semester Year 4

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<td>HLSC 404(v) Comm Hlth Preceptorship</td>
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<td>PSYC 4023 Adulthood &amp; Aging or SCWK 4183 The Elderly Citizen</td>
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<td>HLSC 3633 First Responder - First Aid</td>
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<tr>
<td>HLSC 3683 Health Care Consumerism or HLSC 3663 Prin/Prac of Mdl Hlth</td>
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<td>124-129 Total Hours</td>
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</table>

† Core areas must be completed from the list below.

SEE PAGE 359 FOR HEALTH SCIENCES (HLSC) COURSES

KINESIOLOGY (KINS)

• University Professor Di Brezzo
• Professors Fort, Gorman, Riggs
• Associate Professor Lingg
• Clinical Associate Professor Kern
• Assistant Professor Calleja, Kluess
• Clinical Assistant Professors Bonacci, Oliver, Smith-Nix
• Instructors Forbes, Mayes

The program in kinesiology is designed to prepare candidates for a variety of career options in the vast field of movement science. Career opportunities may include teaching physical education, coaching, analyzing and prescribing fitness programs, athletic training, or preparation for professional programs in allied health. Graduates of this program should be well prepared to enter graduate programs of study in such areas as pedagogy or adapted physical education, exercise physiology, biomechanics, athletic training, sport management, medical school, physical therapy school, and other allied health professional schools.

The candidate for the Bachelor of Science in Education degree with a major in kinesiology must select one of three concentrations:

I. P-12 Teaching Physical Education/Wellness & Leisure
II. Exercise Science – Pre-Professional Science
III. Applied Exercise Science

All students must complete the state minimum core (University Core) requirements as listed on page 40. In addition, all students must take the required general studies for the kinesiology major and the kinesiology core requirements listed below. As part of the University Core requirements, specific math and science courses are required within the kinesiology major and concentrations. A student preparing to teach in the public schools must select the P-12 teaching concentration and must have a grade point average of 2.5 or greater. For additional Information on licensure, contact academic advisor. Students interested in obtaining an endorsement in coaching should contact the Coordinator of Teacher Education. Students applying for other post-baccalaureate programs should inquire as to prerequisite requirements. Students majoring in kinesiology with a concentration in exercise science (concentrations II, III) must earn a grade of “C” or better in KINS 3153, KINS
Curriculum for a Major in Kinesiology

**State Minimum Core (See Catalog of Studies)** 35-38

**Social Sciences** 12

3 hours of the 12 must include PSYC 2003 General Psychology

**Required general studies for the Kinesiology Major**

COMM 1313 Speech

HLSC 1002 Wellness Concepts (for exercise science/pre-professional concentration II) or HLSC 1103 Personal Health and Safety (for P-12 concentration I & applied exercise science concentration III)

PHED 3001 Practicum I

PHED 2023 Teaching Progressions/Assessment of Basic Skills

PHED 2002 Teaching and Leading Outdoor Recreation and Experiential Activities

PHED 3022 Teaching Stunts/Tumbling

PHED 3032 Teaching Rhythms

PHED 3043 Teaching Fitness

PHED 2443 Human Anatomy (hours counted in the state minimum core)

PHED 2013 Teaching Progressions/Assessment of Basic Skills

PHED 3001 Practicum I

PHED 3001 Practicum I & applied exercise science concentration III

KINS 2223 Motor Development

KINS 3153 Exercise Physiology (for exercise science concentrations II & III) or KINS 3163 Exercise Physiology: Theory and Application (for P-12 concentration I)

KINS 3353 Mechanics of Human Movement

Concentration I: P-12 Teaching Physical Education/Wellness & Leisure

BIOL 1543/1541L Principles of Biology (hours counted in the state minimum core)

PHED 1003 The P.E. Profession: An Overview

PHED 3373 Elementary Physical Education

PHED 3702 Measurement Concepts in Kinesiology

PHED 3702 Measurement Concepts in Kinesiology

PHED 3001 Practicum I

PHED 3002 Teaching and Leading Outdoor Recreation and Experiential Activities

PHED 3022 Teaching Stunts/Tumbling

PHED 3032 Teaching Rhythms

PHED 3043 Teaching Fitness

PHED 3074 Secondary Physical Education

PHED 3203 Principles and Problems of Coaching

PHED 3373 Elementary Physical Education

PHED 3702 Measurement Concepts in Kinesiology

PHED 3903 PE for Special Populations

KINS 3373 Phil/Social Impact on Kinesiology

KINS 4413 Org/Man/Mkt Skills for Kinesiology

HLSC 3633 First Responder ñ First Aid

CIED 3033 Classroom Learning Theory

CNED 4003 Classroom Human Relations Skills

**Senior Block of Classes (Internship Semester): Admission to Internship Semester - Must apply and be enrolled in PHED 3001 the semester prior to Senior Block; 2.5 overall CGPA or 2.75 KINS/PHED Teacher Education Classes; Praxis I passed, Signed-up to take the Praxis II content knowledge exam; and acceptable (determined by PHED faculty) portfolio of undergraduate coursework.**

PHED 4023 Class Management

PHED 407V Physical Education Teaching Internship (9 hrs)

PHED 4203 Professional Issues in Teaching

PHED 4731 Senior Seminar

**Concentration I: P-12 Teaching Physical Education/Wellness & Leisure 76-79**

**Concentration II: Exercise Science – Pre-Professional Science**

**Additional requirements**

BIOL 2013/2021L General Microbiology/Lab

PSYC 2013 Intro to Statistics for Psych. or STAT 2303 or SOCI 3303 or advisor-approved statistics course

MATH 2043 Survey of Calculus (hours counted in the state minimum core) or MATH 2554 Calculus

PHYS 2033/2031L College Physics II/Lab

CHEM 2613/2611L Organic Chemistry II with Lab

PHYS 2013/2011L College Physics I

CHEM 2313/2311L Organic Chemistry I

**Electives - Select from below or others with advisor approval**

CHEM 3613/CHEM 3611L Organic Chemistry II with Lab

CHEM 3813 Intro to Biochemistry

Biol 2323/2321L General Genetics/Lab

HLSC 2662 Terminology for the Health Professions

ENGL 3053 Technical & Report Writing

HESC 2203 Nutrition for Exercise and Sport

PSYC 4183 Behavioral Neuroscience
### Concentration III: Applied Exercise Science

**Exercise Science Core (see above)**

**Additional requirements**
- MATH1203 College Algebra (hours counted in the state minimum core)
- MATH 1213 Plane Trigonometry
- HLSC 3633 First Responder-First Aid
- KINS 4773 Performance and Drugs

**Electives** - Select from below or others with advisor approval
- KINS 2393 Prevention and Care of Athletic Injuries
- HLSC 2662 Terminology for Health Professions
- RECR 3873 Sport & Recreation Risk Management
- HLSC 3683 Health Care Consumerism
- HLSC 4603 Appl. of Health Behavior Theories

### Kinesiology Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan in Kinesiology should see page 42 in the Academic Regulations chapter for university requirements of the program. Kinesiology has three concentrations: P-12, Exercise-Pre-Professional and Exercise Science-Applied Exercise Science. The eight semester plan for each is listed below.

#### P-12 Concentration I

<table>
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<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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<td>4 BIOL 1543/1541L Principles of Biology w/Lab</td>
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</tr>
<tr>
<td>3 HLSC 1103 Personal Health and Safety</td>
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<td>3 PHED 1003 The P.E. Profession: An Overview</td>
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<table>
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<tbody>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>3 MATH 1203 College Algebra (or higher)</td>
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<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
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<td>3 ESL History or American Nat. Government</td>
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<tr>
<td>3 PHED 2013 Tch Progress and Assess./Basic Skills</td>
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<td>3 KINS 2223 Motor Development</td>
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<td>3 PSYC 2003 General Psychology</td>
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<td>3 Literature Elective</td>
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<tr>
<td>3 FA/Humanities</td>
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<td>4 BIOL 2443/2241L Human Anatomy w/Lab</td>
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<td>3 PHED 2023 Tch. Progres. &amp; Assess./Adv. Skills</td>
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<td>3 CIED 3033 Classroom Learning Theory</td>
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<td>2 PHED 2002 Outdoor Recreation and Exp. Activities</td>
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<td>3 Fine Arts or Humanities</td>
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<td>3 PHED 3373 Elementary Physical Education</td>
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<td>3 PHED 3903 Physical Education for Special Populations</td>
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<td>3 CNED 4003 Classroom Human Relationship Skills</td>
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<td>3 KINS 3163 Ex Phys: Theory &amp; App</td>
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<td>15-18 Semester Hours</td>
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</table>

† Core areas must be completed as outlined in the chart below.

Note: All students seeking licensure in the state of Arkansas are subject to a criminal background check. Forms for this procedure may be obtained at Peabody Hall, Room 117, at the State Department, or any police station, including the campus police. These background checks take up to six months to process; therefore, students are advised to complete and submit the forms to the proper authorities six months in advance of actually applying for a license. Arkansas will not certify anyone who has been convicted of a felony.

Although not required for the KINSBS P-12 degree, students seeking coaching endorsement will need to take PHED 4001 as well as appropriate PRAXIS exam(s) as designated by the Arkansas State Department of Education.

#### Pre-Professional Science Concentration II

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<td>4 BIOL 1543/1541L Principles of Biology w/Lab</td>
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<td>MATH 1203</td>
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<td>MATH 1213</td>
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* BIOL 1543/1541L is a prerequisite for BIOL 2443/2441L.

**Core areas must be completed as outlined in the University Core chart below.**

**Applied Exercise Science Concentration III**

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<td>Approved Elective</td>
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<tr>
<td></td>
<td>BIOL 2213/2211L</td>
<td>Human Physiology w/Lab</td>
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<tr>
<td></td>
<td>13-17</td>
<td>Semester Hours</td>
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<tr>
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<td>PHYS 2013/2011L</td>
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<tr>
<td></td>
<td>15-18</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>Fall 4</td>
<td>KINS 4903</td>
<td>Internship or KINS 405V Independent Study</td>
</tr>
<tr>
<td></td>
<td>KINS 4833</td>
<td>Exercise Application/Special Populations</td>
</tr>
<tr>
<td></td>
<td>PSYC Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>†Social Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0-3</td>
<td>Semester Hours</td>
</tr>
<tr>
<td></td>
<td>Literature Elective (recommend WLIT I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>Spring 4</td>
<td>KINS 4323</td>
<td>Analytical Basis/Movement</td>
</tr>
<tr>
<td></td>
<td>KINS 4773</td>
<td>Performance and Drugs</td>
</tr>
<tr>
<td></td>
<td>Media/Computer Course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HLSC 3633</td>
<td>First Responder-First Aid</td>
</tr>
<tr>
<td></td>
<td>0-3</td>
<td>Semester Hours</td>
</tr>
<tr>
<td></td>
<td>Literature Elective (recommend WLIT I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12-15</td>
<td>Semester Hours</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Total Hours</td>
</tr>
</tbody>
</table>

† Core areas must be completed as outlined in the University Core chart below.

* BIOL 1543/1541L is a prerequisite for BIOL 2443/2441L.

**RECREATION (RECR)**

- Professors Hunt, Moiseichik
- Associate Professor Langsner
- Assistant Professor Benton
- Visiting Professor van der Smissen

The program of recreation is designed to prepare candidates for a variety of career opportunities in the field of recreation and parks. Career opportunities may include park and recreation directors for a city, sports management, fitness center managers, state and national park managers, camp administrators, or work in YMCAs, Boys and Girls Clubs, or other youth-serving agencies. Graduates of this program should be well prepared to enter the recreational workforce at an entry level position or pursue graduate studies in such areas as recreation management, sport management, or other allied health professional schools.

The candidate for the Bachelor of Science in Education degree with a major in recreation must select professional electives in an area of interest.
with help from an academic adviser from the recreation faculty. Each set of professional electives is developed individually to meet specific career goals. Professional electives are 18-21 hours, generally in academic areas other than the recreation program. Examples of professional electives include, but are not limited to, public recreation, children and families, fitness club management, commercial recreation, aquatic management, therapeutic recreation, camp administration, outdoor leadership, community sports, youth at risk, and outdoor recreation.

All students must complete the University Core requirements as listed on page 40. In addition, all students must take the required general studies for the recreation core requirements listed below. Recreation majors must obtain a “C” or better in all courses beginning with the alpha code RECR. To enroll in RECR 440V, students must have a 2.50 GPA or better in RECR core and professional elective courses. Many courses in the recreation curriculum are taught in sequential order. Please check catalog course descriptions for prerequisites.

There are several experiential requirements within the recreation core. Students are required to do three practicum experiences (RECR 201V) in three different agencies. Each experience totals 45 hours. A more intense experience of an internship (RECR 440V) requires a minimum of 400 hours or work full time for 12-15 weeks in an agency with a qualified park and recreation professional. Students in the recreation program must obtain one instructor-level certification and a second certification in another area of expertise, three certifications which must be appropriate to recreation and be pre-approved by the recreation program. For additional information regarding these certifications see a recreation faculty adviser. Certifications must be valid at the time of graduation and be completed before a grade will be assigned in these certifications. Students in the recreation program must obtain one recreation professional. Students in the recreation program must obtain three certifications which must be appropriate to recreation and be pre-approved by the recreation program. For additional information regarding these certifications see a recreation faculty adviser. Certifications must be valid at the time of graduation and be completed before a grade will be assigned in RECR 4013 Contemporary Issues in Leisure. Examples of these certifications include, but are not limited to, water safety instructor, aerobics instructor, American Red Cross canoeing instructor, first-aid instructor, and hunter safety instructor. A minimum of 124 hours are required for graduation in the major of recreation.

An undergraduate minor in recreation is also available to students enrolled in other colleges. Students with interests related to the recreation profession such as business, biology, human environmental science, or horticulture may elect the 15-hour minor. This minor could enhance future career opportunities.

**Curriculum for a Major in Recreation**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Minimum Core</td>
<td>35-38</td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 2003 American National Government</td>
<td>9</td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
</tr>
<tr>
<td>PSYC 2003, General Psychology</td>
<td></td>
</tr>
<tr>
<td>SOCI 2013 General Sociology</td>
<td></td>
</tr>
<tr>
<td>3-hour Social Sciences elective</td>
<td></td>
</tr>
<tr>
<td>See page 40 for listing of approved courses</td>
<td></td>
</tr>
<tr>
<td>Required General Studies for the Recreation Major</td>
<td>12</td>
</tr>
<tr>
<td>3-hour Literature/History/Western Civilization elective</td>
<td></td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>HLSC 1002 Wellness Concepts</td>
<td></td>
</tr>
<tr>
<td>PEAC 1621 Fitness Concepts</td>
<td></td>
</tr>
<tr>
<td>3-hour Adviser Approved Computer Class</td>
<td></td>
</tr>
<tr>
<td>Recreation Core</td>
<td>51</td>
</tr>
<tr>
<td>RECR 1003 Professional Foundations of Leisure</td>
<td></td>
</tr>
<tr>
<td>RECR 1023 Recreation and Natural Resources</td>
<td></td>
</tr>
<tr>
<td>RECR 201V Recreation Practicum (three one-credit experiences)</td>
<td></td>
</tr>
</tbody>
</table>

**RECR 2063 Commercial Recreation and Tourism Enterprise**

**RECR 2813 Leadership Techniques in Recreation**

**RECR 3833 Program Planning in Recreation**

**RECR 3843 Planning, Design and Maintenance for Recreation**

**RECR 3853 Leisure Behavior**

**RECR 3873 Sport and Recreation Risk Management**

**RECR 4003 Innovative Practices in Recreation**

**RECR 4013 Contemporary Issues in Leisure**

**RECR 4083 Research and Evaluation in Recreation**

**RECR 440V Internship (9 hours)**

**HLSC 3633 First Responder-First Aid**

**Directed Study Professional Electives**

5-8

**Total Hours for Recreation degree**

124

**Curriculum Requirements for a Minor in Recreation**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECR 1003 Professional Foundations of Leisure</td>
<td>15</td>
</tr>
<tr>
<td>RECR 2813 Leadership Techniques in Recreation</td>
<td></td>
</tr>
<tr>
<td>RECR 3833 Program Planning in Recreation</td>
<td></td>
</tr>
<tr>
<td>RECR 3873 Sport and Recreation Risk Management</td>
<td></td>
</tr>
<tr>
<td>RECR 440V Internship (9 hours)</td>
<td></td>
</tr>
<tr>
<td>HLSC 3633 First Responder-First Aid</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The minimum number of hours required to receive a baccalaureate degree at the University of Arkansas is 124 semester hours.

The Recreation major is exempt from Act 1014, which requires eight-semester degree plans for most majors, because students are recommended to register for RECR 440V (Internship) after the completion of their course work. This is necessary because the recreation agencies have their busiest season in the summer. For a recommended nine-semester plan, however, please refer to the Department of Rehabilitation, Human Resources, and Communication Disorders Web site at http://coehp.uark.edu/.

**REHABILITATION, HUMAN RESOURCES, AND COMMUNICATION DISORDERS (RHRC)**

Michael T. Miller

Department Head

100 Graduate Education Building

479-575-3582

E-mail: mttmille@uark.edu

The Department of Rehabilitation, Human Resources, and Communication Disorders offers the B.S.E. in Human Resource Development and the B.S.E. in communication disorders. The M.S. with an emphasis in speech pathology, M.S. in rehabilitation, and Ph.D. in rehabilitation are also offered.
**COMMUNICATION DISORDERS (CDIS)**

201 Speech and Hearing Clinic  
479-575-4509  
- Professor Shadden  
- Associate Professor Toner  
- Assistant Professor Hagstrom  
- Research Associate Aslin  
- Instructor McGehee

An undergraduate major in communication disorders leads to the B.S.E. degree and prepares students for graduate studies (master's level) in speech-language pathology and audiology. The minimum requirements for all students in the college are listed under general studies on page 233.

**Admission to the B.S.E. Major Degree Program in Communication Disorders**

All students declaring an undergraduate major in communication disorders are accepted as tentative candidates to the undergraduate program. However, formal admission to the program is limited. Students must apply for admission to the undergraduate B.S.E. degree program in communication disorders prior to taking junior- and senior-level classes in the major. Requirements for admission include the following:

- Completion of the admission application form.
- Junior status at the time that 3000-level courses will be taken.
- An overall minimum GPA of 3.0 over the first four semesters (50-60 hours) of college course work. Under special circumstances, students may petition the faculty to waive the 3.0 GPA requirement.
- Satisfactory completion of an admission interview with designated members of the faculty.

Students who do not meet admission criteria for the B.S.E. degree program in communication disorders in any given year may reapply in subsequent years.

**Requirements for the program in Communication Disorders**

<table>
<thead>
<tr>
<th>University Core Required for Communications Disorders</th>
<th>35-38 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2003 Advanced Comp must be taken, no exemption of this course is allowed</td>
<td></td>
</tr>
<tr>
<td>Science with Lab</td>
<td></td>
</tr>
<tr>
<td>BIOL 1543/1541L</td>
<td></td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>PHYS 1023/1021L</td>
<td></td>
</tr>
<tr>
<td>PHYS 2013/2011L</td>
<td></td>
</tr>
<tr>
<td>CHEM 1074/1071L</td>
<td></td>
</tr>
<tr>
<td>Fine Arts and Humanities</td>
<td></td>
</tr>
<tr>
<td>3 hours must be WLIT 1113</td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td></td>
</tr>
<tr>
<td>3 hours must be PSYC 2003</td>
<td></td>
</tr>
<tr>
<td>General Studies</td>
<td></td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>HLSC 2662 Terminology for the Health Professions</td>
<td></td>
</tr>
</tbody>
</table>

**Communication Disorders Eight-Semester Degree Program**

Students wishing to follow the eight-semester degree plan in Communication Disorders should see page 42 in the Academic Regulations chapter for university requirements of the program. An eight-semester plan for the Honors Option is available at the College of Education and Health Profession’s Web site.

All CDIS students are accepted as tentative candidates. Students must apply for formal admission to the undergraduate B.S.E. degree program in CDIS prior to taking junior- and senior-level classes in the major. Refer to page 237 for admission criteria.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1203 College Algebra (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1543/1541L Principles of Biology w/lab</td>
<td>4</td>
</tr>
<tr>
<td>U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>16 Semester Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>†Fine Arts or Humanities (except category C)</td>
<td>3</td>
</tr>
<tr>
<td>†Social Science (except PSYC 2003)</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>15 Semester Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WLIT 1113 World Literature</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 2253 Intro to Communicative Disorders</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2003 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1023/1021L Physics &amp; Human Aff. or CHEM 1074/1071L Fund. of Chem</td>
<td>4-5</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>16-17 Semester Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HLSC 2662 Terminology for the Health Professions</td>
<td>2</td>
</tr>
<tr>
<td>†Social Science (except PSYC 2003)</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communications</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>7-8</td>
</tr>
<tr>
<td><strong>15-16 Semester Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIS 3124 Normal Phonology &amp; Articulation</td>
<td>4</td>
</tr>
<tr>
<td>CDIS 3120L Phonetic Transcription Lab</td>
<td>0</td>
</tr>
<tr>
<td>CDIS 3213 Anatomy of Speech and Hearing Mechanism</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 3224 Language Development in Children</td>
<td>4</td>
</tr>
<tr>
<td>CDIS 3220L Language Transcription Lab</td>
<td>0</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>14 Semester Hours</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIS 3203 Articulation Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 3233 Introduction to Clinical Practice</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 4223 Language Disorders in Children</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing</td>
<td>3</td>
</tr>
</tbody>
</table>
Human Resource Development (HRDV) Concentration

**Hours**

- **University Core Requirements**
  - 15 hours
  - Must be PSYC 2003 General Psychology

- **HRDV General Education Requirements**
  - 13 hours
  - Oral Communication: Fundamentals, public speaking, or similar course
  - Health/Wellness/Fitness/Safety: 3 hours
  - Computers/Technology/Information Systems: 3 hours
  - Electives: 6 hours

- **HRDV Technical Requirements**
  - 3 hours
  - Experiential Learning: CATE 200V-204V Work Experience credit

- **Additional HRDV Practicum coursework**
  - 12 hours

- **HRDV Practicum Requirements**
  - 12 hours

- **Total Hours**
  - 35-38

**COUNSELOR EDUCATION (CNED)**

- Professors Farley, Greenwood
- Associate Professor Newgent
- Assistant Professor Kissinger
- Instructor Stephen
- Clinical Assistant Professor Higgins

**HIGHER EDUCATION (HIED)**

- Professors Gearhart, Hammons, Miller
- Associate Professor Murry
- Adjunct Assistant Professors Pugh, Seabrooks, Tull

**HUMAN RESOURCE DEVELOPMENT (HRDV)**

- Phil Gerke
  - Adviser
  - 214 Graduate Education Building
  - 479-575-4690
- Dale E. Thompson
  - Adviser
  - 111 Graduate Education Building
  - 479-575-6640

HRDV curriculum focuses on developing the people skills and effective development strategies useful for management, supervision, employee/technical training, consultation, or instructional design. The plan of study accelerates degree-completion for working adults by offering credit for knowledge gained by experience. Web-based and weekend courses by distance learning at selected campuses around Arkansas are offered on a five-semester degree-completion plan in cooperation with the UA Division of Continuing Education. Undergraduates also obtain a solid academic base to pursue a graduate degree. This is not a teacher preparation concentration.

This degree is open only to adult learners who have earned at least 40 hours of General Education requirements, who are employed full time, and have at least five years of work experience. Departmental approval is mandated before taking any HRDV courses. These admission requirements exclude this concentration from the Act 1014 Eight Semester Degree Completion Program. However a recommended five-semester degree-completion plan and additional information regarding this concentration can be found on the College web site.

**Human Resource Development (HRDV) Concentration**

**COURSES**

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIS 3103 Intro. To Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 4253 Neurological Bases of Communication</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 4273 Communication Behavior and Aging</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Recommend: CDIS 4001 Clinical Practicum: Undergraduate)</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIS 4133 Intro. to Aural Rehab.</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 4213 Intro to Speech and Hearing Science</td>
<td>3</td>
</tr>
<tr>
<td>CDIS 4183 Assessment of Speech and Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>Electives (Recommend: CDIS 4001 Clinical Practicum: Undergraduate)</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

† Must meet University Core. See the chart below.

SEE PAGE 325 FOR COMMUNICATION DISORDERS (CDIS) COURSES

**COURSES**

### Human Resource Development (HRDV)

**Human Resource Development Concentration Five-Semester Degree Completion Program**

The Human Resource Development Concentration is exempt from ACT 1014 requirements, which apply to eight-semester degree-completion plans. This five-semester plan is an example only; individual student plans may vary significantly. Courses in bold must be taken that semester. All University Core and Human Resource Development general education graduation requirements in the Academic Regulations section of the Catalog of Studies must be met in order to receive a diploma.
Credit from Human Resource Development academic adviser-approved National Occupational Competency Testing Institute (NOCTI) assessments accelerate completion of technical requirements. If fewer than needed are earned from NOCTI, completing additional Practicums and/or other appropriate coursework will require heavier course loads per semester and/or longer than five semesters to graduate.

Students not passing the optional Advanced Composition Exemption Exam are advised to start ENGL 2013 Essay Writing by Independent Study in April after HRDV 3213 ends. Passing the exemption exam adds 3 credits of HRDV General Education to Electives to complete graduation requirements. Local students preferring on-campus classes are advised to take ENGL 2003.

<table>
<thead>
<tr>
<th>Earned Prior to Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 University Core and HRDV General Education credits</td>
</tr>
<tr>
<td>13 Appropriaten HRDV Technical credits</td>
</tr>
<tr>
<td>53 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HRDV 3213 Intro to HRD (Fridays, CIV classroom-based)</td>
</tr>
<tr>
<td>3 HRDV 4113 Theories/Principles of Adult Education (Web-based)</td>
</tr>
<tr>
<td>6 HRDV General Education courses as needed</td>
</tr>
<tr>
<td>Take all, if any, NOCTI tests needed and approved by HRDV adviser</td>
</tr>
<tr>
<td>Take Advanced Composition Exemption exam if desired</td>
</tr>
<tr>
<td>12 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HRDV 3133 Communication in HRD (Fridays, CIV classroom-based)</td>
</tr>
<tr>
<td>3 HRDV 3113 Skills and Strategies (Web-based)</td>
</tr>
<tr>
<td>6 HRDV General Education courses as required</td>
</tr>
<tr>
<td>14 Credit by examination(s) for job knowledge in semester 1 awarded</td>
</tr>
<tr>
<td>Begin ENGL 2013 Essay Writing by Independent Study (unless exemption approved)</td>
</tr>
<tr>
<td>26 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 2013 Essay Writing by correspondence completed (unless exemption approved)</td>
</tr>
<tr>
<td>3 HRDV 3403 Employment Law* or HRDV Practicum 1**</td>
</tr>
<tr>
<td>3 HRDV 3503 Workforce Behavior***</td>
</tr>
<tr>
<td>9 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(This example shows a distant transfer student in the “A” rotation; the “B” rotation swaps the HRDV courses in bold in Fall Semester Year 2 with those in Spring Semester Year 2.)</td>
</tr>
<tr>
<td>3 HRDV 4233 Leadership in HRD (Web-based)</td>
</tr>
<tr>
<td>3 HRDV 4213 Professional Development (Saturdays, CIV classroom-based)</td>
</tr>
<tr>
<td>3 HRDV Practicum 1** or HRDV 3403 Employment Law*</td>
</tr>
<tr>
<td>3 HRDV Practicum 2</td>
</tr>
<tr>
<td>12 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HRDV 3123 Needs Assessment and Evaluation (Web-based)</td>
</tr>
<tr>
<td>3 HRDV 4133 Group Dynamics (Saturdays, CIV classroom-based)</td>
</tr>
<tr>
<td>3 HRDV Practicum #3</td>
</tr>
<tr>
<td>3 HRDV Practicum #4</td>
</tr>
<tr>
<td>12 Semester Hours</td>
</tr>
<tr>
<td>124 Total Hours</td>
</tr>
</tbody>
</table>

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* HRDV 3403 Employment Law, a Technical requirement for graduation, can be taken any semester after completing 43+ hours of HRDV General Education credit and all approved NOCTI tests.

** HRDV students must complete four Practicum courses of their choice, numbered HRDV 4603, HRDV 4613, HRDV 4623, HRDV 4633, HRDV 4643, HRDV 4653, HRDV 4663, HRDV 4673, HRDV 4683, or HRDV 4693, in any semester after completing 43+ hours of HRDV General Education, all approved NOCTI tests if any, and the prerequisite HRDV Professional course.

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**HRDV 3503 Workforce Behavior, available in summer only, can be taken as an option for HRDV Technical credit after completing 43+ hours of General Education and all approved NOCTI tests, if any. HRDV 3503 is a prerequisite for HRDV 450V Experiential Learning. Any HRDV 450V credit would be applied in subsequent semesters in consultation with an HRD academic adviser.**

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**REHABILITATION (Rhab)**

100 Graduate Education Building  
479-575-4758  
- University Professor Roessler  
- Professors Anderson, Watson  
- Associate Professor Koch  
- Research Professors Boone, Schroedel  
- Assistant Professor Williams  
- Research Assistant Professors Cochran, Sabik

SEE PAGE 389 FOR REHABILITATION (Rhab) COURSES

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**WORKFORCE DEVELOPMENT EDUCATION (WDED)**

- Professors Biggs, De Vore, Dutton, Hinton  
- Associate Professors Thompson (D.)  
- Assistant Professors Banks, Beck, Brooks, Mungania  
- Visiting Assistant Professor Graham

SEE PAGE 396 FOR ADULT EDUCATION (WDED) COURSE

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Engineering is one of the most rewarding of the major professions. Engineers have been primarily responsible for the present high standard of living and for the security of the nation in times of peace and war. Engineering graduates must have a background of sound mathematics, scientific and economic principles and must be acquainted with industrial practices in their chosen field before they can assume responsibility in the profession. Many engineering graduates become managers and leaders in the public and private sectors because of the problem-solving skills that were developed as part of an engineering education.

The College of Engineering adds personal, social and economic value to the region, the state, the nation, and to the world through engineering education and cutting-edge research in emerging technologies. Value is added through four separate but highly integrated activities:

- Undergraduate Education
- Graduate Education and Research
- Continuing Education and Technology Transfer
- Technology-based Business Incubation and Job Creation

Programmatic activities focus largely on the following areas of emphasis:

- Biological, Chemical and Food Processing
- Biomedical Engineering
- Database
- Electric Power Systems and Advanced Power Electronics
- Electronics Manufacturing
- Environmental and Ecosystems Analysis
- Mixed Signal Electric Systems
- Nanotechnologies
- Transportation, Logistics and Infrastructure
- Homeland Security

Extensive information about the College of Engineering is available from the Web site http://www.engr.uark.edu. The site includes overviews of each programmatic activity and area of emphasis as well as information about faculty, facilities, programs of study, advisory groups, centers, research capabilities, special programs, distance education, professional development, and opportunities for partnerships with the college.

Statement of Purpose

Recognizing that the University of Arkansas, Fayetteville, is a land-grant institution with consequent responsibilities in teaching, research, and service, and realizing that these are mutually dependent and necessary responsibilities, the College of Engineering adopts and seeks to fulfill the following statements of purpose.

Undergraduate Education: To offer a high-quality and fully accredited course of instruction involving classroom, laboratory, and extracurricular activities that will result in professionals qualified to begin careers in the field of engineering and prepared to assume responsible places of leadership in society.

Graduate Education: To offer state-of-the-art coursework and research experiences that result in all graduates being capable of independent analysis and design, and all Ph.D. graduates capable of extending the state-of-the-art in their areas of expertise.

Continuing Education: To provide local, regional, national, and international seminars, symposia, short courses, and credit courses to engineers and others in the technical community to help them further their formal education and keep abreast of new developments in technology.

Technology Development: To assist actively and vigorously in the growth and development of the state of Arkansas and the nation by performing research and development of state-of-the-art technology, by updating the existing technology within industrial circles, by providing educational support services, and by attracting and creating new industry.

External Relations: To communicate effectively with the college's various constituencies to establish and maintain long-term relationships, which lead to increased support for quality programs in teaching, research, and service.

Internal Relations: To actively involve engineering faculty in University, college, and department governance and related functions.
COLLEGE OF ENGINEERING STRATEGIC PLAN

“Engineering the Future – Today”
For more than 100 years, the College of Engineering has successfully fulfilled its primary mission: to provide an excellent engineering education to undergraduate and graduate students at the University of Arkansas. The College of Engineering faculty, staff, alumni and students decided to accept the challenge to become one of the best. Specifically, our collective goal is:

To become and be recognized as one of the top tier graduate and undergraduate engineering programs in the U.S.

The College’s strategic plan encompasses five main goals. By successfully accomplishing these objectives, the College of Engineering will contribute to the University of Arkansas becoming a nationally competitive, student-centered research institution serving Arkansas and the world, effectively fulfilling its purpose.

Six Strategic Goals
1. Implementing the Student-Centered Educational Experience – Provide a student-centered educational experience that attracts diverse, high-quality students, enables them to realize their potential, inspires them to pursue excellence at all degree levels and grooms them to become leaders in their profession.
2. Implementing an Enabling Research Environment – Create a research environment that enables, enhances and recognizes scholarship, while stimulating entrepreneurship and economic development within our state, nation and world.
3. Implementing the Vision as it Relates to Faculty – Recruit, mentor and retain high-quality and diverse faculty members who value and promote world-class scholarship.
4. Implementing the Vision as it Relates to Staff – Attract, develop and retain well-qualified, diverse and skilled staff members who are equipped to support the growth and potential of the College of Engineering.
5. Implementing the Service and Economic Development Outreach Plan – Enhance the impact of the College of Engineering both within and outside the university through service and outreach.

FACILITIES AND RESOURCES

Instructional, Computer, and Laboratory Facilities
Undergraduate instruction in engineering takes place in Bell Engineering Center, Engineering Hall, J.B. Hunt Center for Academic Excellence, and the Mechanical Engineering building. These facilities contain state-of-the-art classrooms and instructional equipment. Undergraduate laboratories are located both on the main campus as well as at the Engineering Research Center. Laboratories offer students hands-on experience relating to the subject matter addressed in the classroom.

The College of Engineering utilizes a wide variety of computing equipment to assist in engineering education. Students have easy access to computers through general computer laboratories or computer facilities located in specialized laboratories within the college. The computers are networked so that all the computing power of the university, including the mainframe computers, can be accessed from the PCs or workstations provided for engineering students. Owning a personal computer is not required; however, it is beneficial.

Laboratory Fee
In order to maintain the college’s state-of-the-art instructional and computer laboratories, each student enrolled in an engineering course is assessed a laboratory fee for that term. This fee is used only to purchase and maintain equipment and staff the engineering laboratories to assist students.

Library
The books and references used by engineering students and faculty are housed principally in the University of Arkansas Mullins Library. This collection is the most useful and comprehensive engineering library in the state. Many publications pertinent to the engineering profession are being added continuously. Mullins Library is the depository for water resources papers, geological survey materials, and NASA publications, as well as other governmental and industrial series.

Engineering Research Center
The 178,000-square-foot Engineering Research Center is located approximately two miles south of the main campus. The center provides the facilities and support services for a wide variety of research activities. It houses the Engineering Experiment Station through which the research of individual departments in the college is administered. Centers and laboratories located at the Engineering Research Center include GENESIS, the High Density Electronics Center, the Center for Training Transportation Professionals, and the Chemical Hazards Research Center.

Distance Learning
A Master of Science in Engineering (M.S.E.) degree is available for students who wish to take a broad range of engineering courses. See the Graduate School Catalog for details.

Professional development and continuing education credits can be earned through the College of Engineering’s Center for Distance Learning. These courses provide ongoing training on technical and engineering topics for professional engineers, land surveyors, and others in the technical and engineering professions.

The Master of Science in Operations Management (MSOM) degree program at the University of Arkansas offers students the philosophy, concepts, and techniques needed to manage available resources to achieve maximum efficiency and effectiveness in meeting operational goals. It provides the tools needed for successful management in industrial and/or military settings. Geared toward the working student, classes meet in the evenings in five 8-week terms per year. The program is offered at military installations at Little Rock Air Force Base (Jacksonville, Ark.), Naval Support Activity Mid-South (Millington, Tenn.), Hurlburt Field, Fla., and at in-state sites at Fayetteville, Camden, and Blytheville. Students in remote locations may also earn the MSOM degree by taking video courses. This is a non-engineering degree that is open to students from all undergraduate backgrounds. See the Graduate School catalog for details.

DEGREES OFFERED
The College of Engineering offers programs leading to the following eight undergraduate degrees:

• Bachelor of Science in Biological Engineering (B.S.B.E.)
• Bachelor of Science in Chemical Engineering (B.S.Ch.E.)
• Bachelor of Science in Civil Engineering (B.S.C.E.)
• Bachelor of Science in Computer Engineering (B.S.Cmp.E.)
• Bachelor of Science in Electrical Engineering (B.S.E.E.)
• Bachelor of Science in Industrial Engineering (B.S.I.E.)
• Bachelor of Science in Mechanical Engineering (B.S.M.E.)
• Bachelor of Science in Computer Science (B.S.)
OTHER PROGRAMS

Off-Campus Programs
The College of Engineering at the University of Arkansas, Fayetteville (UAF) is offering the Bachelor of Science degrees in Electrical Engineering and Mechanical Engineering at the University of Arkansas at Fort Smith (UAFS). Upper-division courses are taught in person or through distance-learning technology by UAF faculty, and lower-division courses are taught by UA SF faculty. The degree is awarded by UAF, but all classes are offered at the UA SF campus.

Cooperative Education
George Winter
Career Development Center, College of Engineering, Bell 3158
(479) 575-6201, Fax: (479) 575-7744, gwinter@uark.edu

Over the years thousands of engineering students have participated in the Cooperative Education (Co-op) program at the University of Arkansas program. Students have gained experience related to their major locally, within the state, across the nation, and internationally. The experience gained by Co-op students allows them to step into their first full-time positions ready to contribute in ways that other students cannot. The material shown below will give you the information you need to make the Co-op decision.

Cooperative Education (Co-op) is an academic program that allows students to gain practical work experience prior to graduation. Students work either full or part-time in paid, degree-related jobs.

Forms of Cooperative Education: Alternating and Parallel
In an alternating plan, students will alternate between semesters on-campus study with semesters off-campus at your Co-op work site. In a parallel Co-op, students work part-time for a local company (15 to 25 hours each week) and attend school at least half-time. In either plan the student is considered a "full-time" student.

By participating in Cooperative Education, students have the chance to:
• Gain hands-on experience in a real world setting
• Confirm the choice of their major
• Make valuable industry contacts
• Enhance their communication skills
• Make money while also taking classes
• Help ensure a job at graduation

Requirements and Conditions
Undergraduate students must have completed 30 hours toward an engineering degree and must have a minimum 2.25 cumulative GPA. Students participating in a full-time Co-op must have 12 hours of course work remaining upon return to campus.

Graduate students must have completed 6 hours toward an engineering degree and must have a minimum 3.0 cumulative GPA. Students participating in a full-time Co-op must have 3 hours of course work remaining (not thesis, dissertation, or research). They must also have approval of the departmental graduate adviser prior to interviewing for Co-op positions.

Transfer students must have completed one semester of full-time study in the College of Engineering and must meet all other Co-op requirements.

Students in F-1 non-immigration status must have completed nine months of study in the United States and must meet all other Co-op requirements. Full-time Co-op assignments consist of the following scenarios:
• One semester away from campus (Spring, Summer, or Fall).
• One summer and one semester away from campus (Spring & Summer OR Summer & Fall).
• Alternating Semesters between Spring, Summer, and Fall.

 Ralphers who are away from campus for 2 semesters in one year, are eligible for only one semester away the following year with no more than three Co-op semesters in a 24-month period. Exceptions to this must be approved in advance by their Departmental Co-op Representative. Students who are going to be away from campus for the Fall and Spring semester in the same academic term must receive prior approval from their Departmental Co-op Representative.

Three-Two Transfer Plan
The College of Engineering recognizes that a graduate engineer, to be of full service to community, must be educated in the social sciences and humanities as well as in technical subjects. The practice of industry to elevate engineers to managerial and administrative positions elevates the desirability of a broad educational background. Likewise, most universities within Arkansas do not offer a degree in engineering. Accordingly, the College of Engineering of the University of Arkansas has entered into a cooperative program with several Arkansas "partner" universities to provide for a five-year combined course of study that leads to a Bachelor of Arts/Bachelor of Science degree from the partner university and an engineering degree from the University of Arkansas. Typically, a student spends the first three years at the partner university and then completes an engineering curriculum in two years at the University of Arkansas. The student is awarded the Bachelor of Arts/Bachelor of Science degree by the partner university. The student is awarded the Bachelor of Science in an engineering discipline by the University of Arkansas.

COLLEGE ADMISSION REQUIREMENTS

Freshmen admitted to the University of Arkansas, Fayetteville, are eligible to enroll in the College of Engineering. The freshman curriculum stresses a basic foundation in mathematics, physics, and chemistry, which will be required in later years. The sophomore, junior, and senior years are spent in a strong concentration on the student’s chosen field, with emphasis on industrial applications of classroom and laboratory work. By the selection of electives, a student can concentrate in depth in a particular subject, have the flexibility to study several subjects, and minor in an area of interest. Provision is made for electives in the humanities and social sciences as a means of providing a well-rounded education.

Computer Skills
Future students are strongly encouraged to take a one-year high school course in basic computer skills, which should include at a minimum: 1) basic use of a common operating system, 2) word processing, and 3) use of spreadsheets.

All engineering departments either recommend or require that incoming students deficient in these skills take a specified remedial course. Taking high school courses in engineering drawing and computer programming also is beneficial and strongly encouraged.

International Students
Before being admitted all computer engineering applicants must submit a Test of Spoken English (TSE) score of at least 5.0, or a 7.0 on the spoken section of the IELTS, and an ACT score of 25 (or SAT score of 1140(R)) or above, to be eligible for admission.

Transfer of Credit
In addition to the University policies controlling the granting of credit for course work taken at other institutions, the following policies apply to students entering the College of Engineering:

1. All courses taken at another institution are subject to approval by the dean of the College of Engineering and the head of the degree-granting department. Credit from all institutions must be approved on a course-
by-course basis to ensure its acceptability in fulfilling requirements for a degree in engineering. In making this evaluation, the student may be required by the dean and/or department head to produce catalogs from the institution from which the student is transferring that contain descriptions of the courses for which credit is expected in an engineering discipline.

2. Advanced (3000- and 4000-level at the University of Arkansas) engineering courses may not normally be transferred from institutions that do not have engineering programs accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

3. Unless exceptions are granted at the time of admission to the University of Arkansas, no degree credit will be granted for any course taken at another institution in which the student's grade in that course was not the equivalent of at least 2.00 on a 4.00 grading system. See the Admission chapter in this catalog for more information.

**COLLEGE SCHOLARSHIPS**

The College of Engineering awards numerous scholarships and fellowships to entering freshmen, continuing students, transfer students, and graduate students. Most scholarships are based primarily on academic performance. However, scholarships also may be awarded on the basis of financial need and diversity. Scholarships are available from both the college and its individual departments. College scholarships are available to any engineering student, and departmental scholarships are meant for students enrolled in a particular discipline of engineering. Students must be admitted to the University of Arkansas and accepted into the College of Engineering to qualify and receive either a college or departmental scholarship. The college has a one-step application process that allows a student to be considered for all college-level and departmental scholarships.

For more information concerning scholarship and diversity opportunities, contact the Engineering Student Affairs Office at 575-3051 or e-mail engrdean@uark.edu.

**STUDENT ORGANIZATIONS**

The following are honorary-scholarship and professional societies to which engineering students at the University of Arkansas may aspire:

- Alpha Chi Sigma (a professional chemistry fraternity)
- Alpha Epsilon (Biological/Agricultural Engineering)
- Alpha Pi Mu (Industrial Engineering)
- Chi Epsilon (Civil Engineering)
- Eta Kappa Nu (Electrical Engineering)
- Omega Chi Epsilon (Chemical Engineering)
- Order of the Engineer (professional engineering society)
- Phi Eta Sigma (freshmen)
- Phi Kappa Phi (juniors and seniors)
- Phi Sigma Rho, (professional engineering sorority)
- Pi Mu Epsilon (Mathematics)
- Pi Tau Sigma (Mechanical Engineering)
- Tau Beta Pi (Engineering)
- Theta Tau, (a professional engineering fraternity, maintains a chapter house on the campus and is active in university and college affairs)

Several national engineering societies are listed below and maintain student branches in the College of Engineering, each under the auspices of a professor in a related department.

- American Chemical Society
- American Institute of Aeronautics and Astronautics
- American Institute of Chemical Engineers
- American Nuclear Society
- Amateur Radio Club of the University of Arkansas
- American Society of Agricultural and Biological Engineers
- American Society of Civil Engineers
- American Society of Heating, Refrigeration, and Air-Conditioning Engineers
- American Society of Mechanical Engineers
- Association for Computing Machinery
- Engineers Without Borders
- Institute of Biological Engineers
- Institute of Electrical and Electronics Engineers
- Institute of Electrical and Electronics Engineers, Components, Packaging, and Manufacturing Technology
- Institute of Industrial Engineers
- Institute of Transportation Engineers
- International Microelectronics and Packaging Society
- National Society of Black Engineers
- Society of Automotive Engineers Assoc. for Computing Machinery
- Society of Hispanic Professional Engineers
- Society of Manufacturing Engineers
- Society of Women in Engineering
- Transportation and Logistics Association

**COLLEGE ACADEMIC REGULATIONS**

Students are expected to keep themselves informed concerning current regulations, policies, and program requirements in their fields of study and must meet all requirements of the degree programs in which they are enrolled. Courses that are modified or added to a curriculum and that are incorporated into the curriculum at a level beyond that at which a student is enrolled may become graduation requirements for that student. Courses that are incorporated into the curriculum at a level lower than the one at which the student is enrolled are not required for that student.

**Eligibility**

Only students enrolled in the College of Engineering or enrolled in programs in which curricula require engineering courses will be allowed to take engineering courses. Exceptions to this requirement must be approved by the dean of engineering. This does not apply to graduate students.

**Code of Ethics**

Students in the College of Engineering are obligated to comply with pertinent provisions of the Code of Ethics applicable to professional practice following graduation. The Code requires “honesty, impartiality, fairness, and equity,” and “adherence to the highest principles of ethical conduct.” Most particularly, it states that engineers shall:

1. Be objective and truthful in professional reports, statements, or testimony;
2. Not falsify or permit misrepresentation of their academic or professional qualifications;
3. Give credit for engineering work to those whom credit is due;
4. Not compete unfairly with other engineers by attempting to obtain employment or advancement by improper or questionable methods;
5. Avoid any act tending to promote their own interest at the expense of the dignity and integrity of the profession.
HONORS PROGRAM

The College of Engineering has established an honors program to challenge superior students with a more in-depth academic program and research experience and to provide a structure for working more closely with faculty members and other students in a team environment. An honors program is highly recommended for individuals planning academic or research related careers that require considerable critical and original independent thinking. Admission requirements for the college’s Honors Program are as follows: entering freshmen must have at least a 3.5 high school GPA and at least 28 composite score on the ACT; entering transfer students must have a 3.25 GPA on their transfer work. Students not qualifying for the Engineering Honors Program initially are eligible after one year if they earn at least a 3.25 GPA.

Students must formally apply for admission to the Engineering Honors Program. Once accepted into the program, Honors students take a minimum of 12 hours of Honors courses (a minimum of 6 of these 12 hours must be in engineering), participate in undergraduate research and write an undergraduate thesis, and must fulfill any additional departmental requirements. To retain status in the Honors Program, a student must maintain a minimum cumulative GPA (for all course work, computed at the end of the spring semester) of 3.25. To receive honors distinction at graduation, a student must hold a cumulative GPA of 3.50 or better (for all course work, computed at graduation). Students with a GPA between 3.25 and 3.50 do not receive honors distinction at graduation.

DEGREE REQUIREMENTS

The basic requirement for a Bachelor of Science degree in engineering is 124-132 semester hours of academic work, depending on the career field chosen. Students coming from high school with adequate preparation will be able to satisfy this requirement in eight semesters; however, some students require preparatory courses, and others choose to enroll in slightly lighter loads and graduate in nine or ten semesters. Students enrolled in ROTC require an additional 19 semester hours to meet all graduation requirements and graduate in ten semesters (five years).

Engineering is a rapidly changing profession, and the departmental curricula are updated continuously to keep pace with these changes. Students entering under this catalog will be required to comply with such curriculum changes to earn their degree. However, the total number of semester hours required for the degree may not be increased, and all work completed in accordance with this catalog prior to the curriculum change will be applied toward the student’s degree requirements. Former students of the college must meet the curriculum requirements in effect at the time of their readmission.

Graduation Requirements

In addition to the specific departmental requirements for degree plans, students should refer to the Academic Regulations chapter of this catalog for general university requirements, beginning on page 39. A portion of that information is listed here for convenience.

1. Residency Requirement – The full senior year must be completed in residence except that a senior who has already met the minimum residency requirement will be permitted to earn not more than 12 of the last 30 hours in extension or correspondence courses or in residence at another accredited institution granting the baccalaureate degree. No more than six of these 12 hours may be correspondence courses. The minimum residence requirement is 36 weeks and 30 semester hours. Residency for the senior year is defined as a period during which the student must be enrolled in courses offered on the campus in Fayetteville. This is intended to provide adequate contact with the University and its faculty for each student who is awarded a degree. Colleges and departments have the authority to prescribe residence requirements that exceed those described here.

2. Grade-Point Average – A candidate for a degree from the College of Engineering must have earned a grade-point average of no less than 2.00 on all courses in the student’s major area of study, all engineering courses, and all work completed at the university and presented for the degree. Grades on work taken at other colleges and presented for transfer credit must also meet this standard.

3. Courses That Do Not Count Toward a Degree – The following courses do not count toward degree credit: ANTH 0003, PHSC 0003, ENGL 0003, MATH 0003, CIED 0003, MATH 1203, MATH 1213, MATH 1285, and ENGL 2003.

4. “D” Rule – No student will be allowed to graduate if the student has “D” grades in more than 15 percent of all credit earned in this institution and presented to meet the requirements for a degree.

5. 68 Hour Rule – Students who transfer into the University may present for degree credit no more than 68 hours of lower division course work (1000 and 2000 level).

6. Advanced Composition – Every undergraduate student is required to take and pass ENGL 2003 Advanced Composition unless exemption can be gained. ENGL 2003 will not count as part of the total number of hours required for a degree in the College of Engineering.

7. University Core (State Minimum Core) – The University of Arkansas has adopted a University Core of 35 semester-credit-hours of general education courses that are required of all baccalaureate degree candidates. This is in compliance with Arkansas Act 98 of 1989 and the subsequent action of the Arkansas State Board of Higher Education. Beginning in the fall semester of 1991, all state institutions of higher education in Arkansas have a 35-hour minimum core requirement with specified hours in each of six academic areas. The University and the College of Engineering have identified those courses that meet the minimum requirement, and they are listed in the chart below. Students should consult the requirements for specific departments and programs when choosing courses for use in the UA University Core. Every student in the College of Engineering is required to complete a minimum of 18 semester hours in the humanities and social sciences. Six semester hours must be at the 3000-level or above. A list of approved upper-level humanities/social science courses is available in departmental offices and the dean’s office.

No more than nine semester hours from any single discipline may be presented for degree credit. To meet the University Core requirements, the total number of hours (both upper level and lower level) in the fine arts/humanities courses must be at least six, and the social science hours must total at least nine (in addition to the U.S. history or government requirement). The six hours of courses at the 3000 and 4000 level may be in the fine arts and humanities area, the social science area, or divided between the two areas. Since some of the humanities and social science courses are specified in some of the curricula, e.g., ECON 2143 in chemical and mechanical engineering, the student should consult the curriculum of the department in which he/she is enrolled prior to selecting upper-level electives.

Specific University Core Requirements for Engineering Students

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 1023 Technical Composition II</td>
<td></td>
</tr>
</tbody>
</table>
University of Arkansas, Fayetteville

Minors in Other Colleges and Schools

Students in the College of Engineering may pursue an academic minor in other colleges. For example, a minor in business is popular among engineering students. For requirements regarding minors, check the catalog listing for the department offering the minor. Students must notify the College of Engineering dean's office of their intent to pursue a minor.

Requirements to Graduate with Honors

Students who have demonstrated exceptional academic performance in baccalaureate degree programs will be recognized at graduation by the honors designation of cum laude, magna cum laude, or summa cum laude. To earn this designation, the student must meet the following criteria:

1. Must have completed at least one-half of his or her degree work at the University of Arkansas;
2. Must have at least a 3.50 GPA on University of Arkansas course work, computed at graduation (students with grade-point averages lower than 3.50 do not receive honors designation at graduation);
3. Must successfully complete the Engineering Honors Program, which includes a minimum of 12 hours of honors courses (at least 6 of these hours in engineering), an undergraduate research experience and thesis, and any additional departmental requirements;
4. Research and thesis material shall be evaluated by each department;
5. For cum laude, the student must achieve a GPA of 3.50 or higher and have good or better performance on the undergraduate research and thesis;
6. For magna cum laude, the student must achieve a GPA of 3.75 or higher and have good or better performance on the undergraduate research and thesis;
7. For summa cum laude, the student must achieve a GPA of 3.90 or higher and have outstanding performance on the undergraduate research and thesis.

The criteria may be evaluated and changed periodically by the College of Engineering.

Requirements to Graduate with Distinction

Students who have not completed the Engineering Honors Program but have demonstrated excellent academic performance in baccalaureate degree programs will be recognized at graduation by the designation of "with distinction," "with high distinction," or "with highest distinction." To earn these designations, the student must meet the following criteria on his or her University of Arkansas course work:

1. Must have completed at least one-half of his or her degree work at the University of Arkansas;
2. For "with distinction," the student must achieve a GPA of 3.60 or higher;
3. For "with high distinction," the student must achieve a GPA of 3.75 or higher;
4. For "with highest distinction," the student must achieve a GPA of 3.90 or higher.

The criteria may be evaluated and changed periodically by the College of Engineering.

GRADUATE STUDIES

The College of Engineering, in cooperation with the UA Graduate School, offers programs leading to the following graduate degrees:

- Master of Science in Biological Engineering (M.S.B.E.)
- Master of Science in Biomedical Engineering (M.S.B.M.E.)
- Master of Science in Chemical Engineering (M.S.Ch.E.)
- Master of Science in Civil Engineering (M.S.C.E.)
- Master of Science in Computer Engineering (M.S.Cmp.E.)
- Master of Science in Computer Science (M.S.)
- Master of Science in Electrical Engineering (M.S.E.E.)
- Master of Science in Engineering (M.S.E.)
- Master of Science in Environmental Engineering (M.S.En.E.)
- Master of Science in Industrial Engineering (M.S.I.E.)
- Master of Science in Mechanical Engineering (M.S.M.E.)
- Master of Science in Operations Management (M.S.O.M.)
- Master of Science in Operations Research (M.S.O.R.)
- Master of Science in Telecommunications Engineering (M.S.Tc.E.)
- Master of Science in Transportation Engineering (M.S.T.E.)
- Doctor of Philosophy in Computer Science (Ph.D.)
- Doctor of Philosophy in Engineering (Ph.D.)

In addition, the College of Engineering supports the following interdisciplinary graduate programs:

- Master of Science in Cellular and Molecular Biology (M.S.)
- Master of Science in Microelectronics-Photonics (M.S.)
- Master of Science in Space and Planetary Sciences (M.S.)
- Doctor of Philosophy in Cellular and Molecular Biology (Ph.D.)
- Doctor of Philosophy in Microelectronics-Photonics (Ph.D.)
- Doctor of Philosophy in Space and Planetary Sciences (Ph.D.)

Further information concerning these programs may be found in the Graduate School Catalog or in the office of the dean of the Graduate School.

ACCREDITATIONS

As the only comprehensive engineering program in Arkansas, the College of Engineering offers undergraduate, graduate, and doctoral degrees through seven academic departments. UA engineering programs have been continuously accredited by the Accreditation Board of Engineering and Technology (ABET) since 1936.

The College of Engineering offers the following programs accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700:

- Bachelor of Science in Biological Engineering (B.S.B.E.)
- Bachelor of Science in Chemical Engineering (B.S.Ch.E.)
- Bachelor of Science in Civil Engineering (B.S.C.E.)
- Bachelor of Science in Computer Engineering (B.S.Cmp.E.)
• Bachelor of Science in Computer Science (B.S.)
• Bachelor of Science in Electrical Engineering (B.S.E.E.)
• Bachelor of Science in Industrial Engineering (B.S.I.E.)
• Bachelor of Science in Mechanical Engineering (B.S.M.E.)
• Master of Science in Environmental Engineering (M.S.En.E)
• Master of Science in Transportation Engineering (M.S.T.E.)

DEPARTMENTAL MAJORS

BIOLOGICAL AND AGRICULTURAL ENGINEERING (BAEG)

Lalit Verma
Head of the Department
203 Engineering Hall
479-575-2351

• Professors Gardisser, Griffis, Li, Loewer, VanDevender, Verma
• Associate Professors Bajwa, Carrier, Costello, Haggard, Kim, Matlock, Osborn, Tacker
• Assistant Professors Kavdia, Ye
• Adjunct Professors Ang, Clausen, Deaton, Ingels
• Adjunct Associate Professors Beitle, Chaubey, Shafirstein, Yang
• Adjunct Assistant Professors Hestekin, Howell, Wimberly

Biological Engineers improve people’s lives today and help assure a sustainable quality of life for tomorrow. They create solutions to problems by coupling living systems (human, plant, animal, environmental, food, and microbial) with the tools of engineering and biotechnology. Biological engineers improve human health through biomedical engineering (center of medicine and biotechnology); effectuate a safe, nutritious food supply and create critical, new medicines through biotechnology engineering; secure a healthy and safe environment through ecological engineering. A bachelor of science degree in biological engineering is also excellent preparation for medical school.

Biological Engineering is an ABET accredited program leading to the B.S. degree. M.S. and Ph.D. degrees are also offered. The curriculum is under the joint supervision of the dean of the College of Engineering and the dean of the Dale Bumpers College of Agricultural, Food and Life Sciences. The Bachelor of Science in Biological Engineering degree is conferred by the College of Engineering and is granted after the successful completion of 128 hours of approved course work.

The educational objectives of the Biological Engineering program are to produce graduates who 1) effectively apply engineering to biological systems and phenomena (plant, animal, human, microbes, and the environment) with demonstrated proficiency in basic professional and personal skills, and 2) are well prepared for diverse careers in biological engineering, life-long learning, and professional and ethical contributions to society through sustained accomplishments in biomedical engineering, ecological and biotechnology.

Areas of Concentration

The three areas of concentration in biological engineering are as follows:

Biomedical Engineering – nanomedicine, tissue engineering, organ regeneration and its clinical application, bioinstrumentation, biosensing/medical imaging, medical electronics, physiological modeling, biomechanics, and rehabilitation engineering. This area is excellent preparation for medical, veterinary or dental school as well as for graduate programs in biomedical engineering.

Biotechnology Engineering – biotechnology at the micro- and nanoscale, food processing, food safety and security, developing new products from biomaterials, and biotransformation to synthesize industrial and pharmaceutical products.

Ecological Engineering – integrates ecological principles into the design of sustainable systems to treat, remediate, and prevent pollution to the environment. Applications include stream restoration, watershed management, water and wastewater treatment design, ecological services management, urban greenway design and enclosed ecosystem design.

Each student is required to complete 18 semester hours of approved electives in his or her area of concentration. Six hours must be from the biological engineering design elective courses (listed below) from a single area of concentration. The remaining 12 hours are classified as technical electives and consist mainly of upper-division courses in engineering, mathematics, and the sciences as approved by the student’s adviser. The selected technical electives must include at least six hours of upper-level engineering courses, either within BENG or from other engineering departments. The department maintains a list of approved electives.

The areas of technical concentration and the recommended elective courses for each are listed here.

Biomedical Engineering

Design Electives:

BENG 3213 Biomedical Engineering: Emerging Methods and Applications
BENG 4203 Biomedical Engineering Principles

Technical Electives:

BIOL 2533/2531L Cell Biology
BIOL 2404 Comparative Vertebrate Morphology, or BIOL 2443/2441L Human Anatomy
BIOL 4234 Comparative Physiology, or BIOL 2213/2211L Human Physiology
BENG 4113 Risk Analysis for Biological Systems
BENG 4123 Biosensors and Bioinstrumentation
BENG 4623 Biological Reactor Systems Design
BENG 451VH, Honors Thesis
BIOL 4233 Microbial Genetics
KINS 3535 Mechanics of Human Movement
ELEG 2903 Digital Systems
HESC 3204 Nutrition

Biotechnology Engineering

Design Electives:

BENG 4703 Biotechnology Engineering
BENG 4623 Biological Reactor Systems Design

Technical Electives:

BENG 4113 Risk Analysis for Biological Systems
BENG 4123 Biosensors and Bioinstrumentation
BENG 451VH Honors Thesis
FDSC 4304 Food Chemistry
FDSC 4124 Food Microbiology
FDSC 3103 Principles of Food Proc.
BIOL 4233 Microbial Genetics
BIOL 4313 Physiology of Microorganisms
CHEM 3453/3451L Elements of Physical Chemistry
MEEG 4413 Heat Transfer
CHEG 3153 Non-equilibrium Mass Transfer
CHEG 4423 Auto. Process Control
HESC 3204 Nutrition

Ecological Engineering

Design Electives:

BENG 4903 Ecological Engineering Principles
BENG 4923 Ecological Engineering Design
Technical Electives:
BENG 4113 Risk Analysis for Biological Systems
BENG 4403 Enclosed Ecosystems Design
BENG 4623 Biological Reactor Systems Design
BENG 4803 Precision Agriculture
BENG 4123 Digital Remote Sensing and GIS
BENG 451VH, Honors Thesis
BIOL 3863/3861L General Ecology
CVEG 3223 Hydrology
CVEG 3243 Environmental Engineering
CVEG 4243 Environmental Engineering Design
CSES 2203 Soil Science
CSES 4043 Environmental Impact and Fate of Pesticides
GEOG 4543 Geographic Information Systems
ENSC 4034 Analysis of Environmental Contaminants

Biological Engineering Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Biological Engineering degree and a suggested sequence. Some courses are not offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students should note that BIOL 1543/1541L is a pre- or co-requisite to BENG 2612 in the Fall 2 semester and BIOL 2013/2011L in the Spring 2 semester. Students should earn advanced college credit for BIOL 1543/1541L, obtain placement permission from the Biological Sciences Department or take the course for non-degree credit.

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. Students must also take ENGL 2003 during the third year or gain exemption.

**Fall Semester Year 1**

| 1 | GNEG 1111 Introduction to Engineering I |
| 3 | ENGL 1013 Composition I |
| 3 | CHEM 1103 University Chemistry I |
| 4 | MATH 2594 Calculus I |
| 4 | PHYS 2054 University Physics I |
| **15 Semester hours** | |

**Spring Semester Year 1**

| 1 | GNEG 1121 Introduction to Engineering II |
| 3 | ENGL 1023 Technical Composition II |
| 4 | Freshman Engineering Science Elective* |
| 4 | MATH 2564 Calculus II |
| 3 | Humanities/Social Science Elective |
| **15 Semester hours** | |

**Fall Semester Year 2**

| 2 | BENG 2612 Biological Engr Design Studio II |
| 4 | Sophomore Science Elective** |
| 4 | MATH 2574 Calculus III |
| 3 | CHEM 3603 Organic Chemistry I |
| 1 | CHEM 3601L Organic Chemistry I Lab |
| 2 | GNEG 1122 Introduction to CAD |
| **16 Semester hours** | |

**Spring Semester Year 2**

| 2 | BENG 2622 Biological Engineering Design Studio III |
| 4 | MATH 3404 Differential Equations |
| 3 | CHEM 3613 Organic Chemistry II |
| 1 | CHEM 3611L Organic Chemistry II Lab |
| 3 | MEEG 2003 Statics |
| 3 | BIOL 2013 General Microbiology |
| **17 Semester hours** | |

**Fall Semester Year 3**

| 2 | BENG 3712 Engineering Properties of Biological Materials |
| 3 | CHEM 3813 Introduction to Biochemistry |
| 3 | MEEG 2403 Thermodynamics, or CHEG 2313 Thermodynamics of Single Component Systems |
| 3 | MEEG 3013 Mechanics of Materials |
| 3 | CVEG 3213 Hydraulics, or MEEG 3503 Mechanics of Fluids, or CHEG 2133 Fluid Mechanics |
| 3 | Technical Elective |
| **17 Semester hours** | |

**Spring Semester Year 3**

| 3 | BENG 3723 Unit Operations in Biological Engr |
| 3 | BENG 3803 Mechanical Design in Biological Engr |
| 4 | BENG 4104 Instrumentation in Biological Engr |
| 3 | BENG Design elective |
| 3 | U.S. History Requirement |
| 0 | ENGL 2003 Advanced Composition or Exemption |
| **18 Semester hours** | |

**Fall Semester Year 4**

| 2 | BENG 4822 Senior Biological Engr Design II |
| 6 | Humanities/Social Science Elective |
| 6 | Technical elective |
| **14 Semester hours** | |

**Spring Semester Year 4**

| 2 | BENG 4822 Senior Biological Engr Design II |
| 6 | Humanities/Social Science Elective |
| 6 | Technical elective |
| **14 Semester hours** | |

**Total hours**

* The Freshman Engineering Science Elective must be chosen from either CHEM 1123/1121L or PHYS 2074.

** The sophomore Science Elective must be PHYS 2074 (if CHEM 1123/1121L was chosen as the Freshman Engineering Elective) or CHEM 1123/1121L (if PHYS 2074 was chosen as the Freshman Engineering Science Elective. That is, both courses are required for the degree.

See Page 320 for Biological Engineering (BENG) courses.

**CHEMICAL ENGINEERING (CHEG), RALPH E. MARTIN DEPARTMENT OF**

Thomas O. Spicer, III
Head of the Department
3202 Bell Engineering Center
479-575-4951

- Distinguished Professor Havens
- Distinguished Professors Emeriti Gaddy, Thatcher
- University Professor Emeritus Turpin
- Professors Babcock, Beitle, Clausen, King, Penney, Spicer, Thoma, Ulrich
- Professors Emeriti Couper, Cross, Welker
- Research Professor Silano
- Associate Professor Ackerson
- Assistant Professors Hestekin (C.), Hestekin (J.), Servoss
- Adjunct Professors Cheung, Muralidhara, Siebenmorgen, Sublette
- Adjunct Associate Professor Eason

Chemical engineering deals with the creation, design, operation, and optimization of processes that derive practical benefits from chemical or physical
changes. The profession is quite broad and has traditionally provided the technology for: supplying energy and fuel; synthesizing materials such as plastics, chemicals, fertilizers, and pharmaceuticals; and managing environmental and safety concerns of physical and chemical processes.

Chemical engineers have a variety of traditional job opportunities in industries such as petroleum production and processing, chemical manufacturing, food processing, pharmaceutical production, and process equipment manufacturing. Job opportunities may involve research, development, design, manufacturing, sales, or teaching as professional activities. The chemical engineer can also move easily into environmental engineering, nuclear engineering, oceanography, biomedical engineering, pharmacology, law, medicine, or other multidisciplinary fields.

In chemical engineering, the student obtains a broad foundation in chemistry, mathematics, physics, communication skills, economics, and the humanities. Courses in material and energy balances, thermodynamics, reaction kinetics, fluid mechanics, heat and mass transfer, process control, computer methods, safety, and design provide students with the background and learning skills required of the practicing chemical engineer. The curriculum includes elective courses that enable a student to prepare for immediate employment or further study at the graduate level. The chemical engineering program also serves as an excellent preparation for medical, dental, pharmacy, or law school.

The educational objective of the chemical engineering undergraduate program is to provide students with a foundation in mathematics and the basic sciences, the humanities and social sciences, engineering sciences, engineering design methods, and specific chemical engineering skills, and to thereby prepare them, in a global context, to face the challenges of today's complex and difficult problems.

Chemical engineering skills include mass and energy balances, single and multi-component thermodynamics, basic fluid mechanics, heat and mass transfer operations, process economics, process design, process safety, process control, and laboratory practice. Chemical engineering principles are applied to biological processes in several courses in the undergraduate curriculum including Fundamentals of Chemical Engineering, Chemical Process Safety, and CHEG elective courses as well as undergraduate research opportunities. No specific background in biology is required for this work. The list of upper level chemistry electives includes courses in biochemistry which provides students the opportunity to supplement their background in biochemistry if desired.

The educational outcomes of our four-year curriculum are to assure that each student has had the opportunity to:

• apply knowledge of mathematics, science, and engineering;

• locate, interpret, and use physical property data; when data are unavailable, design and conduct experiments, and interpret the resulting data;

• design a system, component, or process to meet desired needs including, for example, determining the capital and operating costs for chemical process equipment and performing technical economic projections;

• function in multi-disciplinary teams;

• identify, formulate, and solve engineering problems including, for example, development of critical thinking processes and the solution of mass and energy balances;

• understand professional and ethical responsibility;

• develop and use effective written and oral communication skills;

• recognize the need to engage in life-long learning;

• understand the impact of engineering solutions in a global or societal context including, for example, being conscious of social, environmental, and safety concerns; and

• be familiar with contemporary issues; and

• use the techniques, skills, and modern engineering tools necessary for engineering practice including, for example, writing structured computer programs and using commercially available technical computer software.

These outcomes are reinforced and demonstrated in a senior capstone safety and design course sequence.

Freshman Engineering Program

Adequate preparation in chemistry is critically important to the success of students pursuing a Bachelor of Science in Chemical Engineering. Entering freshmen who do not qualify for CHEM 1123 University Chemistry II (and its associated lab CHEM 1121L) are strongly advised to take an exemption test and CHEM 1121L in their second semester. Students who successfully complete the Freshman Engineering Program in their first year (including CHEM 1123 and CHEM 1121L) can complete a B.S.Ch.E. in six additional semesters (eight semesters total).

Chemical Engineering Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Chemical Engineering degree and a suggested sequence for students who do not enter the College through the Freshman Engineering Program. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. Entering freshmen will be required to participate in selected Freshman Engineering Student Services.

Students must also take ENGL 2003 during the third year or gain exemption.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 MATH 2554</td>
<td>Calculus I</td>
</tr>
<tr>
<td>3 CHEM 1123</td>
<td>University Chemistry II</td>
</tr>
<tr>
<td>1 CHEM 1121L</td>
<td>University Chemistry II Lab</td>
</tr>
<tr>
<td>3 ENGL 1013</td>
<td>Composition I</td>
</tr>
<tr>
<td>3 CHEG 1113</td>
<td>Intro. to Chem Engr</td>
</tr>
<tr>
<td>3 UI 2003</td>
<td>Hist./American People to 1877 (HIST 2013 or PLSC 2003 may be substituted.)</td>
</tr>
<tr>
<td>17 Semester hours</td>
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### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>4 MATH 2564</td>
<td>Calculus II</td>
</tr>
<tr>
<td>3 CHEG 1123</td>
<td>Intro. to Chem Engr II</td>
</tr>
<tr>
<td>3 ENGL 1025</td>
<td>Composition II</td>
</tr>
<tr>
<td>2 CHEG 121L</td>
<td>Chemical Engr Lab I</td>
</tr>
<tr>
<td>3 Humanities/social science core elective</td>
<td></td>
</tr>
<tr>
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### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>4 MATH 2574</td>
<td>Calculus III</td>
</tr>
<tr>
<td>3 CHEM 3603</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>1 CHEM 3601L</td>
<td>Organic Chemistry I Lab</td>
</tr>
<tr>
<td>4 PHYS 2054</td>
<td>University Physics I</td>
</tr>
<tr>
<td>0 PHYS 2050L</td>
<td>University Physics Lab I</td>
</tr>
<tr>
<td>1 CHEG 2221</td>
<td>Professional Practice Seminar</td>
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<tr>
<td>3 CHEG 2313</td>
<td>Thermodynamics of Single Component Systems</td>
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<td>16 Semester hours</td>
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### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>4 MATH 3404</td>
<td>Differential Equations</td>
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<tr>
<td>3 CHEM 3613</td>
<td>Organic Chemistry II</td>
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270
<table>
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<tr>
<th>Term</th>
<th>Course Codes</th>
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<tbody>
<tr>
<td>Fall Semester Year 3</td>
<td>1 CHEM Elective</td>
</tr>
<tr>
<td></td>
<td>2 MEEG 3013 Mechanics of Materials</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 3333 Chem Engr Reactor Design</td>
</tr>
<tr>
<td></td>
<td>4 ECON 2143 Basic Economics (ECON 2013 Principles of Macroeconomics may be substituted.)</td>
</tr>
<tr>
<td></td>
<td>0 ENGL 2003 Advanced Composition or Exemption</td>
</tr>
<tr>
<td></td>
<td>18 Semester hours</td>
</tr>
<tr>
<td>Spring Semester Year 3</td>
<td>4 CHEM Elective</td>
</tr>
<tr>
<td></td>
<td>3 MEEG 3013 Mechanics of Materials</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 3333 Chem Engr Reactor Design</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 3153 Non-Equil Mass Transfer</td>
</tr>
<tr>
<td></td>
<td>0 ENGL 2003 Advanced Composition or Exemption</td>
</tr>
<tr>
<td></td>
<td>16 Semester hours</td>
</tr>
<tr>
<td>Fall Semester Year 4</td>
<td>3 CHEG 4163 Equil Stage Mass Transfer</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 4413 Chem Engr Design I</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 4813 Chemical Process Safety</td>
</tr>
<tr>
<td></td>
<td>3 Technical elective</td>
</tr>
<tr>
<td></td>
<td>3 Humanities/social science core elective</td>
</tr>
<tr>
<td></td>
<td>15 Semester hours</td>
</tr>
<tr>
<td>Spring Semester Year 4</td>
<td>2 CHEG 4332L Chem Engr Lab II</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 4443 Chem Engr Design II</td>
</tr>
<tr>
<td></td>
<td>3 ELEG 3903 Electric Circuits and Machines</td>
</tr>
<tr>
<td></td>
<td>3 CHEG 4423 Auto Process Control</td>
</tr>
<tr>
<td></td>
<td>3 Technical elective</td>
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<td>3 Humanities/social science core elective</td>
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<tr>
<td></td>
<td>17 Semester hours</td>
</tr>
<tr>
<td></td>
<td>132 Total hours</td>
</tr>
</tbody>
</table>

### Technical Elective Options in Chemical Engineering

Each student in chemical engineering is required to complete six semester hours of technical electives. Students may select these courses from upper division (3000 and above) courses in mathematics, engineering, and the sciences with the approval of their advisor. An undergraduate education in chemical engineering provides a firm foundation for many areas of specialization. The following groups of courses can strengthen the background of a student in a particular area of expertise; note that other technical electives are included on the list approved by the department and that not all of the following courses will meet the requirements of a technical elective.

### Biotechnology/Biomedical Engineering
- CHEG 5513 Biochemical Engineering Fundamentals
- CHEG 5523 Bioprocess Engineering
- CHEM 3813 Introduction to Biochemistry, or
- CHEM 5813 Biotechnology I, or
- CHEM 5843 Biotechnology II
- BIOL 2323/2321L General Genetics
- CEMB 5911 Seminar in Cellular/Molecular Biology

### Chemical Process Safety
- CHEG 5273 Corrosion Control

### Environmental Engineering
- CHEG 5753 Air Pollution
- CHEG 4263 Environmental Experimental Methodology
- CHEG 4913 Environmental Engineering Chemodynamics
- CHEG 5273 Corrosion Control
- MEEG 4813 Air Pollution Abatement
- MEEG 4843 Environmentally Conscious Design and Manufacturing

### Food Process Engineering
- BENG 4703/4700L Food and Bioprocess Engineering
- BENG 3712 Engineering Properties of Biological Materials
- FDSC 4713/4710L Food Product and Process Development
- FDSC 4124 Food Microbiology
- FDSC 4223 Risk Analysis for Biological Systems
- FDSC 4304/4300L Food Chemistry

### Materials Science and Engineering
- CHEG 5273 Corrosion Control
- CHEG 5733 Polymer Theory and Practice
- MEEG 4303 Materials Laboratory

### Microelectronics
- CHEG 5613 Microelectronics Fabrication and Materials
- ELEG 4203 Semiconductor Devices
- PHYS 3614 Modern Physics
- MATH 3423 Advanced Applied Mathematics

### Nuclear Power Engineering
- CHEG 5273 Corrosion Control
- MEEG 4603 Basic Nuclear Engineering
- MEEG 4623 Radiation Protection and Shielding
- MEEG 4633 Nuclear Power Generation
- CHEM 5263 Nuclear Chemistry

### Pre-medicine
- BIOL 1543/1541L Principles of Biology
- CHEM 3813 Introduction to Biochemistry
- BIOL 2013/2011L General Microbiology
- BIOL 2213/2211L Human Physiology
- BIOL 2443/2441L Human Anatomy

### Simulation and Optimization
- CHEG 5033 Technical Administration
- CHEG 5213 Advanced Chemical Engineering Calculations
- INEG 3313 Engineering Statistics
- INEG 3613 Introduction to Operations Research
- INEG 4623 Introduction to Simulations
- MATH 3083 Linear Algebra

See Page 326 for Chemical Engineering (CHEG) courses.

### CIVIL ENGINEERING (CVEG)

Kevin D. Hall  
Head of the Department  
4190 Bell Engineering Center  
479-575-4954
- University Professor Emeritus LeFevre
- University Professor Elliott
- Professors Buffington, Dennis, Gattis, Hall, Selvam, Wang, Young
- Associate Professors Edwards, Hale, Heymsfield, Soerens
Civil engineering is the oldest of all the engineering fields, yet it is as contemporary as the need to provide solutions to today’s environmental problems and to develop advanced transportation systems. The civil engineer plans, designs, builds, and operates projects for the advancement and well being of society while coordinating and conserving human and natural resources. Civil engineering projects range from small to monumental and include public water systems, buildings, bridges, rail and highway networks, wastewater treatment plants, solid and hazardous waste disposal facilities, airports, and soil conservation and flood diversion controls.

The civil engineering profession offers a vast array of opportunities. Civil engineers may work in private employment or with public agencies. They may work indoors in activities such as planning and design, or outdoors in areas such as construction supervision. Employment is possible anywhere in the world.

The objectives of the civil engineering program are to produce graduates who are:

1. employable in any of the following fields: foundation, earthwork, and embankment design and analysis; water, wastewater, and waste handling and treatment; highway facility design and operation; and structural design and analysis.
2. academically prepared to pursue licensure as a Professional Engineer.
3. prepared to pursue an advanced education.

To fulfill these objectives, all students must take courses in geotechnical, environmental, transportation, and structural engineering. Courses are designed to present “real world” applications without sacrificing conceptual and theoretical basics. Students complete design problems in each of these areas; and, as part of the senior year, they participate in two major design projects.

Civil Engineering Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Civil Engineering degree and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program.

Students must also take ENGL 2003 during the third year or gain exemption.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2554 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1105 University Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>PHS 2054 University Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHS 2050L University Physics I Lab</td>
<td>0</td>
</tr>
<tr>
<td>GNEG 1111 Introduction to Engineering I</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
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### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1023 Technical Composition II</td>
<td>3</td>
</tr>
<tr>
<td>Freshman Science Elective</td>
<td>0</td>
</tr>
<tr>
<td>MATH 2564 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>Humanities/social science elective</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 1121 Introduction to Engineering 2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Fall Semester Year 2

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2574 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>CVEG 2053 Statics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Elective Courses

Students must select four 3-hour engineering elective courses in conference with their adviser. The selection must include at least three civil engineering courses. The fourth course can be a civil engineering course or one of the following: MEEG 2013 Dynamics, MEEG 2403 Thermodynamics, ELEG 3903 Electric Circuits and Machines, or MEEG 3703 Numerical Methods. Normally, the civil engineering courses are selected from among the 4000-level elective CVEG courses. Exceptional students may be allowed to choose from the 5000 (graduate-level) course series. Humanities and social science electives are selected from courses approved by the college. Lists of approved electives are on file in the department office. All civil engineering students must complete CHEM 1105 University Chemistry I and CHEM 1123/1121L University Chemistry II. Students may choose to complete CHEM 1123/1121L University Chemistry II as the Freshman Science Elective (as part of the Freshman Engineering Program); in such cases, the Civil Engineering Science Elective requirement is satisfied by
Computer Engineering Design Electives

Students must complete two of the following four CVEG design project electives: CVEG 4811 Environmental Design Project, CVEG 4821 Geotechnical Design Project, CVEG 4831 Structural Design Project, and CVEG 4841 Transportation Design Project. Each design project elective is associated with a specific a specific design-oriented course. The associated course must be taken at the same time as the design project elective. The associated courses may be taken alone but the design electives cannot.

Honors Program Requirements

Students enrolled in the Honors College who are to receive the Bachelor of Science in Civil Engineering must complete a minimum of 12 hours of honors credit. At least 6 hours must be completed within the Civil Engineering program including at least 3 hours resulting in an Honors Thesis. The CVEG honors courses are acceptable as engineering electives and in some cases may be substituted for required courses. The following Civil Engineering courses are offered for honors credit: CVEG 491V H Honors Studies in Geotechnical Engineering, CVEG 492V H Honors Studies in Environmental Engineering, CVEG 493V H Honors Studies in Structural Engineering, CVEG 494V H Honors Studies in Transportation Engineering, and CVEG 4983 H Undergraduate Honors Thesis.

See Page 336 for Civil Engineering (CVEG) courses.

Computer Science and Computer Engineering (CSCE)

Susan Gauch
Head of the Department
504 JB Hunt Center for Academic Excellence
479-575-6197
• Professors Apon, Crisp, Deaton, Gauch (J.), Gauch (S.), Li, Panda, Skeith, Thompson (C.)
• Associate Professors Beavers, Parkerson, Thompson (D.)
• Assistant Professors Di, Shen

The faculty of the Computer Science and Computer Engineering Department is engaged in multidisciplinary academic research, course offerings, and student projects in areas such as: high performance and scientific computing, grid computing, middleware, networking, data security, nanotechnology, graph theory, and subsystem design.

The educational objectives of the department are to produce graduates who are recruited in a competitive market and make valuable contributions to a wide variety of industries, particularly in computer and information technology; succeed in graduate or professional studies; pursue life-long learning and continued professional development; and undertake leadership roles in their profession, in their communities, and in the global society.

The computer engineering degree has required sequences of courses in both hardware and software aspects of computer applications and design. Since almost all of today’s complex systems encompass hardware and software elements, computer engineering graduates must acquire the skills required to design, build, and test complex digital systems. At the advanced level, students are exposed to hands-on experience with open-ended problems with opportunities for research and design.

A degree in computer science provides a wide variety of career choices. Computer science graduates can design, implement, or manage computer systems, as well as adapt computers to new applications. Computer science core courses include the fundamentals of programming concepts, data structures, operating systems, algorithms, formal languages, database management systems, and programming languages.

The CE and CS programs culminate in a capstone project completed in two consecutive semesters. In the first student, students form teams and develop a project proposal. In the second semester, students develop, implement, and present the final project.

Humanities and social science electives are selected from courses approved by the College of Engineering. This list is available on the CSCE Web site at http://www.csce.uark.edu in the advising section. The Undergraduate Handbook has a list of approved basic science, mathematics, and technical electives. Any course not included in these lists requires faculty approval.

The following sections contain the list of courses required for the Bachelor of Science in Computer Engineering (B.S.Cmp.E.) and the Bachelor of Science in Computer Science (B.S.C.S.) degrees and suggested sequences for each.

Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students wishing to follow the eight-semester degree plan should see Page 42 in the Academic Regulations chapter for university requirements of the program.

Students must take the Advanced Composition exam or ENGL 2003 during the third year.

Computer Engineering Eight-Semester Degree Program

Fall Semester Year 1

<table>
<thead>
<tr>
<th>4</th>
<th>MATH 2554 Calculus I</th>
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<tr>
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Spring Semester Year 1

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Fall Semester Year 2

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Spring Semester Year 2

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<td>MATH 2103 Discrete Math</td>
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### Computer Science Eight-Semester Degree Program

**Fall Semester Year 1**

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<td>CSCE 3313 Algorithms</td>
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<td>ELEG 3933 Electronics &amp; Circuits</td>
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<td>CSCE 4513 Software Engineering</td>
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**Spring Semester Year 3**

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**Spring Semester Year 5**

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<td>CSCE 4513 Software Engineering</td>
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**Fall Semester Year 6**

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</tr>
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**Spring Semester Year 6**

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**Fall Semester Year 7**

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**Spring Semester Year 7**

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**Fall Semester Year 8**

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**Spring Semester Year 8**

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**Total Hours: 126**

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* Choose between PHYS 2074 University Physics II or CHEM 1123/1121L University Chemistry II and lab
** If a student does not take CHEM 1123/1121L, a lab will be required with the basic science elective

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**Degree Program Changes**

Students must meet all requirements of their degree programs and are expected to keep informed concerning current regulations, policies, and program requirements in their fields of study. Changes made in the curriculum at a level beyond that at which a student is enrolled might become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not required of that student. Students should consult their departmental adviser for additional information.

**Requirements for Departmental Honors in Computer Science and Computer Engineering**

The Honors Program in Computer Science and Computer Engineering is designed for the superior student and is intended to help the student develop a more comprehensive view of Computer Science and Computer Engineering.
The program provides a vehicle for the recognition of achievements beyond the usual course of study. Higher degree distinctions are recommended only in truly exceptional cases and are based upon the candidate’s whole program of honors studies. A minimum of 12 hours of honors coursework is required.

The following requirements are necessary for graduation with honors in either the Computer Engineering or Computer Science Bachelor of Science program:
1. The candidate must satisfy the requirements set forth by the College of Engineering.
2. A student must obtain at least a 3.50 grade-point average in required Computer Engineering and/or Computer Science courses.
3. The student must complete 7 hours of Honors credit in the major, which includes 4 hours of Honors Thesis taken as two successive semesters of CSCE 4912H and 3 hours of CSCE coursework.

Requirements for the Bachelor of Arts degree with a Major in Computer Science (B.A.C.S.):
At least 30 hours in computer science including CSCE 2003/2001L, CSCE 2013/2011L, CSCE 3143, CSCE 3313, and CSCE 4313 plus 13 hours of electives to be selected from a list of CSCE courses numbered 3000 or higher offered by the department.

The mathematics requirements of the degree are MATH 2554, MATH 2103, and MATH 3103. The remaining courses should meet the requirements for a B.A. degree listed in the Fullbright College section.

Requirements for a Minor in Computer Science:
See Page 334 for Computer Science Computer Engineering (CSCE) courses.

**ELECTRICAL ENGINEERING (ELEG)**

Samir El-Ghazaly  
Head of the Department  
3217 Bell Engineering Center  
479-575-3009
- Distinguished Professors Brown (W.D.), El-Ghazaly, Vasundara Varadan, Vijay Varadan
- Professors Ang, Balda, Manasreh, Mantoosh, Martin, Naseem, Schaper, Sohraby
- Associate Professors Brown (R.L.), El-Shenawee, Gattis, McCann
- Distinguished Professor Emeritus Yeagian
- University Professor Emeritus Schmitt
- Professors Emeriti Jones, Mix, Stephenson, Waite, Webb
- Associate Professor Emeritus Caldwell

Electrical engineering is a professional engineering discipline that in its broader sense covers the study and application of electricity, electronics and electromagnetism. Electrical engineers are in charge of designing and utilizing electrical and electronic components, integrated circuits, integrated chips, computer chips, and electronic assemblies to benefit mankind. Fields of electrical engineering are artificial intelligence, bioengineering, computer hardware and software, control systems, digital electronics, electric energy systems, electronics including microelectronics, mixed signal electronics, nanotechnology and optoelectronics, signal processing and telecommunications.

The electrical engineering graduate is at the forefront of technologies leading to accelerated use of electric power, applications of real time embedded control systems for smart highways, smart vehicles and smart gadgets, global communications, the dominating influence of the computer on modern society, the use of electronic equipment for medical diagnosis, the use of wireless chemical and biological nanosensors for hazard detection, the miniaturization of electronics, and a host of other developments. Therefore, the use of electrical and electronic equipment has spread into such diverse areas as agricultural production, automotives, computer hardware and networks, health care, information technology, manufacturing, marketing, recreation, renewable energy resources, space and underwater exploration, transportation, and many others. As a result, electrical engineering is the largest of all scientific disciplines and assures a continuing demand for electrical engineering graduates throughout business and government.

The University of Arkansas, the state land-grant university, is a nationally competitive, student-centered, research university serving Arkansas and the world. As such, our mission is education, research, and service. Hence, the electrical engineering program is designed to offer a high-quality course of instruction involving classroom, laboratory, and extracurricular activities that results in graduates qualified and prepared to meet the demands of a professional career in the present and future work places as well as to assume a responsible place of leadership in a complex technological society.

The educational mission of the department is conducted through both the undergraduate and graduate programs.

**Undergraduate Program in Electrical Engineering**

The educational objectives for the undergraduate program, which leads to a Bachelor of Science degree in electrical engineering, are to produce graduates who:
1. Are recruited in a competitive market and valued as reliable and competent employees by a wide variety of industries, in particular, electrical and computer engineering industries;
2. Succeed, if pursued, in graduate studies such as engineering, science, law, medicine, business, and other professions;
3. Understand the need for life-long learning and continued professional development for a successful and rewarding career; and
4. Accept responsibility for leadership roles in their profession, in their communities, and in the global society.

Therefore, the electrical engineering curriculum is designed to provide students with knowledge of scientific principles and methods of engineering analysis to form a solid foundation for a career in design, research and development, manufacturing and processing, measurement and characterization, or management. Students progressively build their design experience throughout the curriculum and demonstrate this ability in the senior design laboratories. The curriculum also introduces students to subjects in the humanities, social sciences, and ethics so they may better understand the interaction of technology and society.

The electrical engineering curriculum is divided into three phases. The first year concentrates on the development of a sound understanding of basic sciences and mathematics. The second and third years further develop scientific principles and cover the basic core of electrical engineering. The fourth year is composed primarily of senior-level elective courses. At this time, the students in consultation with their advisors may choose to concentrate in one or more of the technical specializations within electrical engineering (such as control systems, digital or computer hardware, electric power, electromagnetics, electronics, microelectronics, mixed-signal electronics, nanotechnology, power electronics, and sensors). This final year permits the student to tailor a program suited to her or his individual career objectives. The graduation requirement in electrical engineering is 127 semester hours as given below.

The department also participates in the Honors Program to challenge superior students with a more in-depth academic program and research experience. The Honors program enables students to work more closely with faculty members and other students in a team environment. Please see the requirements given below.
Graduate Program in Electrical Engineering

The graduate program offers a Master of Science degree in Electrical Engineering, a Master of Science degree in Telecommunications Engineering, a Master of Science degree in Engineering, and a Doctor of Philosophy degree in Engineering. The graduate program provides additional instruction and hands-on experience beyond the undergraduate level, and produces graduates who are prepared to promptly address critical issues and assume advanced positions in the profession, including management, design, and development.

The research mission of the department is conducted mainly through the graduate program. Internal and external funded research projects serve to:

1. Discover new knowledge, address technical problems, and develop new electrical/electronic technologies;
2. Provide the tools and resources which keep our faculty at the cutting edge of electrical engineering;
3. Provide financial support for graduate students and gifted undergraduate students; and
4. Improve the quality of life for citizens of Arkansas and the world.

The graduate program supports the undergraduate program by giving top undergraduate students access to research laboratories with state-of-the-art equipment and software. Topics covered in graduate courses often migrate into senior undergraduate technical elective courses and eventually into required undergraduate courses.

Departmental Service Mission

Faculty, students, administrators, and staff conduct the service mission of the department and serve as a major resource for the state, the region, the nation and the world. Faculty members are encouraged to provide services to both the community and the profession. Hence, they are active in local, state, national, and international professional and service organizations, as well as public and private schools involving grades K-12.

Electrical Engineering Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Electrical Engineering and a suggested eight-semester sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

Students are required to take ENGL 2003 Advanced Composition or gain exemption.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>GNEG 1111 Introduction to Engineering I</td>
<td>3</td>
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<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>MATH 2554 Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>CHEM 1103 University Chemistry I</td>
<td>4</td>
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<tr>
<td>4</td>
<td>PHYS 2054 University Physics I</td>
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### Spring Semester Year 1

<table>
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<tr>
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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>GNEG 1121 Introduction to Engineering II</td>
<td>3</td>
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<td>ENGL 1023 Technical Composition</td>
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<td>MATH 2564 Calculus II</td>
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<td>Freshman Science Elective</td>
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<td>University Core Elective</td>
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### Fall Semester Year 2

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<tbody>
<tr>
<td>3</td>
<td>ELEG 2103 Electric Circuits I</td>
<td>4</td>
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<tr>
<td>1</td>
<td>ELEG 2101L Electric Circuits I Lab</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>ELEG 2903 Digital Design I</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
<td>ELEG 2900L Digital Design I Lab</td>
<td>0</td>
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<td>4</td>
<td>MATH 2574 Calculus III</td>
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### Spring Semester Year 2

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<th>Hours</th>
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<tr>
<td>3</td>
<td>CSCE 2003 Programming Foundations I</td>
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<tr>
<td>1</td>
<td>CSCE 2001L Programming Foundations I Lab</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>ELEG 2113 Electric Circuits II</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>ELEG 2111L Electric Circuits II Lab</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>ELEG 2913 Digital Design II</td>
<td>3</td>
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<td>0</td>
<td>ELEG 2910L Digital Design II Lab</td>
<td>0</td>
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<td>4</td>
<td>MATH 3404 Differential Equations</td>
<td>4</td>
</tr>
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<td>3</td>
<td>History/Government Requirement</td>
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### Fall Semester Year 3

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<tbody>
<tr>
<td>3</td>
<td>ELEG 3223 Electronics II</td>
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<tr>
<td>1</td>
<td>ELEG 3221L Electronics II Lab</td>
<td>1</td>
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<tr>
<td>3</td>
<td>ELEG 3303 Electromechanical Energy Conversion</td>
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<tr>
<td>1</td>
<td>ELEG 3301L Electromechanical Energy Conversion Lab</td>
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<tr>
<td>3</td>
<td>ELEG 3703 Electromagnetics</td>
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<td>3</td>
<td>Humanities/Social Science Elective</td>
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</tr>
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<td>0</td>
<td>ENGL 2003 Advanced Composition or exemption</td>
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### Spring Semester Year 3

<table>
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<th>Hours</th>
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<tbody>
<tr>
<td>1</td>
<td>ELEG 4061 Electrical Engineering Design I</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>ELEG 4143 Stochastic Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Electrical Eng Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Engineering Science Elective</td>
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<tr>
<td>3</td>
<td>Technical Elective</td>
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<td>3</td>
<td>Upper-Level Humanities/Social Science elective</td>
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### Fall Semester Year 4

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<tbody>
<tr>
<td>1</td>
<td>ELEG 4071 Electrical Engineering Design II</td>
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<tr>
<td>6</td>
<td>Electrical Eng Technical Elective</td>
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</tr>
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<td>3</td>
<td>Technical Elective</td>
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</tr>
<tr>
<td>3</td>
<td>Upper-Level Humanities/Social Science elective</td>
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<tr>
<td>3</td>
<td>Humanities/Social Science Elective</td>
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<tr>
<td></td>
<td><strong>Total semester hours</strong></td>
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</table>

* Freshman Science Elective - CHEM 1123/1121L – University Chemistry II or PHYS 2074 – University Physics II
** Approved Humanities/Social Science course
*** PHYS 2074 if student took CHEM 1123/1121L in the Freshman Year. Otherwise, CHEM 1123/1121L or approved 4 hours in Science

Students should become very familiar with the Academic Regulations chapter for university requirements that apply to the electrical engineering program as well as the College of Engineering requirements (in particular the “D rule” and the “Transfer of Credit” for courses taken at another institution). In addition to these graduation requirements, candidates for an electrical engineering degree must have earned a grade-point average of no less than 2.00 on all ELEG courses excluding ELEG laboratories.
Degree Program Changes

A student must meet all requirements of the degree programs and is expected to stay informed concerning current regulations, policies, and program requirements in a chosen field of study. Changes made in the electrical engineering curriculum at a level beyond that at which a student is enrolled may become graduation requirements for that student. Changes made in the curriculum at a level lower than the one at which a student is enrolled are not normally required for that student. Students should consult their adviser for additional information.

Electrical Engineering Honors Program

To graduate with Honors in electrical engineering, students must be a member of the Honors College, have a minimum cumulative GPA of 3.50, and complete a minimum of 12 hours of honors credit of which 6 hours must be Electrical Engineering courses that include the following: ELEG 4061H – Honors Electrical Engineering Design I, ELEG 4071H – Honors Electrical Engineering Design II, and ELEG 4081H – Senior Thesis.

Recommended Technical Studies

Students in electrical engineering are required to complete 15 semester hours of technical electives of which a minimum of nine semester hours must be 4000- or 5000-level electrical engineering elective courses. A student may select the remaining six semester hours from 4000- or 5000-level electrical engineering elective courses or upper-division technical courses in mathematics, engineering, and the sciences with the approval of an adviser. History and social science courses taught by Math and Science departments are not eligible for technical elective credit. Not more than six semester hours in ELEG 488V and ELEG 489V may be credited toward technical electives. Students who have taken GNEG 2801, GNEG 2811, GENG 3801, GNEG 3811 and GNEG 4801, and whose grades in these courses were A or B may get credit for three hours of non-ELEG technical electives if the work performed is of comparable quality to a technical elective. Descriptions of all electrical engineering courses are in the Course Descriptions chapter of this Catalog of Studies. The schedule of technical electives offered in a given semester is determined the previous semester since the selection depends on a number of varying factors such as student interest in a particular topic, the importance of a particular technology for the student’s professional career, and teaching faculty availability.

See Page 342 for Electrical Engineering (ELEG) course.

INDUSTRIAL ENGINEERING (INEG)

Ron Rardin
Interim Head of the Department
4207 Bell Engineering Center
479-575-3156
• Distinguished Professor Rardin, White
• Professors Johnson, Meller, Cassady
• Associate Professors Fant, Mason, Nachtmann, Puhl, Rossetti
• Assistant Professors Buyurgan, Chimka, Nam, Root
• Adjunct Associate Professor Gattis

The mission of the industrial engineering department at the University of Arkansas is to be a nationally competitive, student-centered industrial engineering program serving Arkansas and the world through undergraduate and graduate studies and leading-edge research programs.

Industrial engineers are concerned with improving organized activity. The physical arrangement of people, equipment, and material significantly influences the effectiveness of any organization — whether the organization is industrial, governmental, or commercial.

Today's industrial engineers develop applications of new processing automation and control technology; install data processing systems, performance measures and standards, job evaluation and wage and salary programs; research new products and product applications; devise ways to improve productivity through application of technology and human factors; select operating processes and methods to accomplish a given task using proper tools and equipment; design facilities, management systems, operations procedures, storage systems; improve allocation of resources, planning and control systems for distribution of goods and services, production, inventory, quality and plant maintenance; enhance plant environment and the quality of working life; evaluate reliability and quality performance; implement office systems, procedures, and policies; analyze complex business problems through operations research; conduct long-range organization studies, plant location surveys, system effectiveness studies; and study potential markets for goods and services, raw material sources, labor supply, energy resources, financing and taxes.

Industrial engineers integrate engineering skills with mathematics and computer science tools, providing systematic ways to maximize productivity and quality while minimizing time and cost.

The goal of the Industrial Engineering Undergraduate Program at the University of Arkansas is to prepare men and women for professional careers and graduate studies in Industrial Engineering. We provide a foundation in mathematics, science, humanities and social sciences, engineering science, and engineering design to produce Industrial Engineers with the intellectual, technical, and professional competence to develop, implement, and manage industrial engineering solutions to complex problems in industry, government, and society.

The IE Program Objectives represent and describe the expected accomplishments of our graduates resulting from participation within our program within the first few years after graduation. Our objectives have been developed to address the needs of our constituencies and to be consistent with and support our mission and programmatic goals. The IE Program Objectives are as follows:

1. To demonstrate the ability to apply core IE fundamentals as a practicing industrial engineer. Core industrial engineering topics include such topics as probability, statistics, engineering economics, human factors, engineering management, computing, and operations research applied to manufacturing, logistics, and service systems.
2. To demonstrate written/oral, teamwork, and professional skills within practice, so that they can begin to contribute to the field of industrial engineering and to leadership within the profession.
3. To design, improve, and manage integrated systems of people, technology, and materials within the context of societal and contemporary issues in engineering practice.
4. To solve unstructured problems by collecting, modeling, analyzing, and interpreting data within Industrial Engineering practice.
5. To engage in life-long learning, continuing education, and professional growth within the field of Industrial Engineering.

These specific objectives are reinforced by a senior capstone design course in which the student must apply the skills to a comprehensive design problem for an industry setting. This course integrates preceding courses through development of physical systems and organizational characteristics, financial aspects, product analysis, equipment selection, production layout, distribution systems, and overall economic analysis.

The total graduation requirement in industrial engineering is 129 hours. For further information please visit us on the World Wide Web at http://www. ineg.uark.edu/.

Industrial Engineering Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Industrial Engineering degree and a suggested sequence. Not
all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program.

Students must also take ENGL 2003 during the third year or gain exemption.

At least 3 hours of technical electives must be selected from INEG courses.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 MATH 2554 Calculus I</td>
<td></td>
</tr>
<tr>
<td>3 CHEM 1103 University Chemistry I</td>
<td></td>
</tr>
<tr>
<td>4 PHYS 2054 University Physics I</td>
<td></td>
</tr>
<tr>
<td>1 GNEG 1111 Introduction to Engineering I</td>
<td></td>
</tr>
<tr>
<td>3 ENGL 1013 Composition I</td>
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<td><strong>Total hours</strong></td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>4 MATH 2564 Calculus II</td>
<td></td>
</tr>
<tr>
<td>4 Freshman Science elective*</td>
<td></td>
</tr>
<tr>
<td>3 Humanities/social science elective</td>
<td></td>
</tr>
<tr>
<td>1 GNEG 1121 Introduction to Engineering II</td>
<td></td>
</tr>
<tr>
<td>3 ENGL 1023 Technical Composition II</td>
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<table>
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<th>Fall Semester Year 2</th>
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<tbody>
<tr>
<td>4 MATH 2574 Calculus III</td>
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<tr>
<td>3 INEG 3413 Engineering Economic Analysis</td>
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</tr>
<tr>
<td>1 INEG 2101 Principles of Industrial Engineering</td>
<td></td>
</tr>
<tr>
<td>3 INEG 3513 Engineering Statistics</td>
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<tr>
<td>4 CSCE 2003/2001L Prog Foundation I and Lab</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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<tbody>
<tr>
<td>4 MATH 3404 Differential Equations</td>
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<tr>
<td>3 INEG 2403 Industrial Cost Analysis</td>
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<tr>
<td>3 Science Requirement**</td>
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<tr>
<td>3 INEG 3533 Industrial Statistics</td>
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</tr>
<tr>
<td>4 CSCE 2013/2011L Prog Foundation II and Lab</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3 INEG 3713 Methods and Standards</td>
<td></td>
</tr>
<tr>
<td>3 INEG 4623 Introduction to Simulation</td>
<td></td>
</tr>
<tr>
<td>3 MEEG 2003 Statics</td>
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<tr>
<td>3 ELEG 3903 Electric Circuits and Machines</td>
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<tr>
<td>3 History or Government Requirement: Select one from (HIST 2003, HIST 2013, PLSC 2003)</td>
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<tr>
<td>3 INEG 3513 Manufacturing Design and Processes</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
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<tbody>
<tr>
<td>3 INEG 3613 Introduction to Operations Research</td>
<td></td>
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<tr>
<td>3 INEG 3523 Manufacturing Systems</td>
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<tr>
<td>Engineering Science 1: Select one from (MEEG 2303 Introduction to Materials, MEEG 2013 Dynamics, MEEG 3013 Mechanics of Materials)</td>
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<tr>
<td>Engineering Science Elective 2: Select one from CHEG 2133 Fluid Mech., MEEG 2403 Thermo</td>
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<tr>
<td>3 ECON 2143 Basic Economics</td>
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<tr>
<td>3 INEG Management Requirement: Select either INEG 4433 Systems Engineering &amp; Management or INEG 4443 Project Management (An upper-level ROTC course may be substituted.)</td>
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<tr>
<td>3 INEG 4543 Materials Handling</td>
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<table>
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<tr>
<th>Spring Semester Year 4</th>
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<tbody>
<tr>
<td>3 INEG 4723 Ergonomics</td>
<td></td>
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<tr>
<td>3 Technical elective (please consult approved technical elective list)</td>
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</tr>
<tr>
<td>6 Humanities/social science electives</td>
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<tr>
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<td><strong>18</strong></td>
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</table>

* CHEM 1123/1121L University Chemistry II or PHYS 2074 University Physics II
** If the student selected CHEM 1123/1121L as their freshman science elective then this course must be PHYS 2074 University Physics II; otherwise see the approved list of IE science electives.

** Technical Electives**

The purpose of technical electives is to provide students with the opportunity to expand their education along lines of particular interest to them. The approved list of technical electives is available in the industrial engineering department. At least three hours must be selected from INEG courses.

**Humanities/Social Science Electives**

Although any elective included on the humanities/social science list may be selected, PSYC 2003 General Psychology is recommended for industrial engineers.

**Science Electives**

The approved list of science electives is available in the industrial engineering departmental office.

See Page 361 for Industrial Engineering (INEG) course.

**MECHANICAL ENGINEERING (MEEG)**

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James A. Davis
Undergraduate Coordinator and Assistant Department Head
204 Mechanical Engineering Building, 479-575-3603
Fax: 479-575-6982
E-mail: jad03@uark.edu

Web: http://www.meeg.uark.edu/

- Distinguished Professors Saxena
- Professors Jong, Malshe, Rencis, West
- Associate Professors Couvillion, Gordon, Nutter, Roe, Springer, Tung
- Assistant Professors Huang, Spearot, Wejinya, Zou
- Instructor Davis
- Adjunct Professor Cole
- Adjunct Assistant Professors Batzer, Hamilton, Paulus, Reynolds
- Emeritus Professor Schmidt

The mechanical engineering program is designed to offer a high-quality...
course of instruction involving classroom, laboratory, and extracurricular activities that results in graduates who are qualified and prepared to meet the demands of a professional career in the present and future workplace and be able to assume a responsible place of leadership in a complex technological society.

The mission of the department is three-fold:

- **Teaching** — To provide a high-quality educational experience for undergraduate and graduate students that enables them to become leaders in their chosen professions.
- **Research** — To create, explore, and develop innovations in engineering and science through undergraduate and graduate research.
- **Service** — To provide beneficial service to the local, state, national, and international industries and communities via educational, technical, entrepreneurial, and professional activities.

The courses offered in mechanical engineering provide the student with a broad understanding of fundamental scientific principles that serve as a background for many fields of specialization. The undergraduate curriculum is designed to stress basic engineering principles and to assist in developing creative thinking. Emphasis is placed on the science and art of designing machines and systems, of converting energy into useful forms, and developing a basic understanding of engineering mechanics. The undergraduate program leads to a Bachelor of Science degree in Mechanical Engineering; its educational objectives are to produce graduates who:

1. effectively analyze and design mechanical systems and energy systems;
2. contribute to economic development of Arkansas and the world through the practice of mechanical engineering;
3. meet or exceed the needs and expectations of mechanical engineering employers in industry, government, and private practice;
4. engage in professional activities that promote the mechanical engineering profession and provide continuing self-development, and
5. succeed in graduate study and research, if pursued.

The Bachelor of Science in Mechanical Engineering curriculum includes, in addition to the humanities/social science elective courses, a total of 12 hours of technical and science electives. A student must select these electives with the approval of his or her adviser. It is expected that electives will be chosen to provide a coherent program within one or more areas of specialization or options available to mechanical engineers. Traditional areas of specialization are available in mechanical systems, materials, and energy systems. Other areas include pre-medical, management, and aerospace.

The first-year curriculum is essentially the same as prescribed for all engineering freshmen. The full curriculum follows, with the number of credit hours at the left, preceding course numbers and titles.

### Mechanical Engineering Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Mechanical Engineering degree and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students interested in obtaining a sequencing schedule of courses may contact the Mechanical Engineering office.

Students wishing to follow the eight-semester degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program.

Students must also take ENGL 2003 during the third year or gain exemption.

Either the science elective in the second semester of Year 1 or the science elective in the first semester of Year 2 must include PHYS 2074. Other science electives should be chosen from an approved list. See the mechanical engineering office.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1013</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1103</td>
<td>University Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2054</td>
<td>University Physics I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2554</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>GNEG 1111</td>
<td>Introduction to Engineering I</td>
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### Spring Semester Year 1

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Humanities/Social Science Elective (History)</td>
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</tr>
<tr>
<td></td>
<td>GNEG 1121 Introduction to Engineering II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 2564 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Freshman Science Elective (See above)</td>
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</tr>
<tr>
<td></td>
<td>ENGL 1023 Technical Composition II</td>
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</tr>
<tr>
<td></td>
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### Fall Semester Year 2

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<tbody>
<tr>
<td>MEEG 2100</td>
<td>CAD</td>
<td>0</td>
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<tr>
<td></td>
<td>Science Elective (See above)</td>
<td>4</td>
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<tr>
<td></td>
<td>MATH 2574 Calculus III</td>
<td>4</td>
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<tr>
<td></td>
<td>MEEG 2303 Introduction to Materials</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MEEG 2003 Static</td>
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</tr>
<tr>
<td></td>
<td><strong>Total Semester Hours</strong></td>
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### Spring Semester Year 2

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MEEG 3503</td>
<td>Mechanics of Fluids</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3913</td>
<td>Engineering Electronics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical/Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities I Social Science Elective (Economics)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Semester Hours</strong></td>
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### Fall Semester Year 3

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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MEEG 3013</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MEEG 3113</td>
<td>Machine Dynamics and Controls</td>
<td>3</td>
</tr>
<tr>
<td>MEEG 3202</td>
<td>Mechanical Engineering Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>MEEG 3503</td>
<td>Mechanics of Fluids</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3903</td>
<td>Circuits &amp; Machines</td>
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<td><strong>Total Semester Hours</strong></td>
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### Spring Semester Year 3

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<tbody>
<tr>
<td>MEEG 3212</td>
<td>Mechanical Engineering Laboratory II</td>
<td>2</td>
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<tr>
<td>MEEG 4413</td>
<td>Heat Transfer</td>
<td>4</td>
</tr>
<tr>
<td>MEEG 4104</td>
<td>Machine Element Design</td>
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</tr>
<tr>
<td>ELEG 3913</td>
<td>Engineering Electronics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical/Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities I Social Science Elective (Economics)</td>
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<tr>
<td></td>
<td><strong>Total Semester Hours</strong></td>
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### Fall Semester Year 4

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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MEEG 4132</td>
<td>Professional Engineering Practice</td>
<td>2</td>
</tr>
<tr>
<td>MEEG 4131</td>
<td>Creative Project Design I</td>
<td>1</td>
</tr>
<tr>
<td>MEEG 4202</td>
<td>Mechanical Engineering Laboratory III</td>
<td>2</td>
</tr>
<tr>
<td>MEEG 4483</td>
<td>Thermal Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical/Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities/Social Science Elective (3000-4000 Level) from approved list</td>
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<tr>
<td></td>
<td>ENGL 2003 Advanced Composition or Exemption</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td><strong>Total Semester Hours</strong></td>
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### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>MEEG 4133</td>
<td>Creative Project Design II</td>
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</tr>
<tr>
<td></td>
<td>Technical/Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical/Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities/Social Science Elective (1000-2000 Level) from approved list</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities/Social Science Elective (3000-4000 Level) from approved list</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Semester Hours</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>
Technical/Science Electives
The purpose of technical/science electives is to provide students with the opportunity to expand their education along lines of particular interest to them. The approved list of technical/science electives and selected courses for various options is available in the Mechanical Engineering department office.

Humanities/Social Science Electives
Students must follow strict guidelines in selecting humanity and social science electives. See mechanical engineering office for details.

See Page 372 for Mechanical Engineering (MEEG) courses.

Editor's Note:
An explanation of a cooperative degree program that appeared at the end of this chapter was removed from the online edition of the Catalog of Studies.
MISSION AND OBJECTIVES

The primary goal of the University of Arkansas School of Law is to prepare lawyers who will render high-quality professional service to their clients, who are interested in and capable of advancing legal progress and reform, and who are prepared to be leaders in their communities. These objectives can best be realized by a competent and dedicated full-time faculty working in partnership with an interested and involved bench and bar. The faculty and administrative staff at the School of Law strive to maintain mutually beneficial relationships with judges and practicing lawyers. Appellate courts regularly schedule cases at the School of Law, and the judges meet with students informally after the arguments. Full-time faculty members teach first-year courses and other required substantive law courses, while practice skill courses such as legal clinic and activities such as moot court and client counseling depend on the assistance of the practicing bar.

The University of Arkansas School of Law also has a strong sense of responsibility to the people of Arkansas. Members of the faculty and student body are active in numerous public service activities. Legal counsel to the indigent is provided through the clinical education program and by special court appointments from time to time. Students and faculty also serve on the bar, in civic and legislative committees, and on task forces. A number of faculty and students contribute time and expertise to state agencies and law reform groups. All of these activities offer students real legal work, serving the people of Arkansas.

Teaching Methods

Legal training teaches principles through discussion and skills through practice. The student must be, by definition, an active participant in that process.

The Socratic “case method” is the basic tool of traditional American legal education. This method involves the study and discussion of litigated cases. The teacher calls upon students to respond in a stimulating question-and-answer dialogue, frequently involving several class members and often including more questions than answers. The learning experience occurs not only in the interchange between teacher and student, but also among the students themselves. This process, applied skillfully by expert teachers and by students possessing a sense of awareness and curiosity, hones the minds of students, develops their respect for facts, and creates a sensitivity to essential differences among issues, policies, reasons, and arguments. Intensive and consistent daily preparation is necessary for students to participate effectively in this process.

In some of the first-year courses, and in many later courses, students are given practical legal problems to solve. These problems may involve drafting legal documents or formulating a course of action for a hypothetical client.

By the time students reach their third year, they will be prepared to engage in significant legal research in selected areas of specialization. A primary source for such experience will be seminars taught informally in small groups by professors who are experts in selected subjects. Frequently, a student will be expected to defend a seminar paper before classmates under circumstances that provide lively and constructive discussion. During the second and third years, students are also permitted to engage in research and writing projects for credit under the supervision and consultation of a selected faculty member, in an area of particular interest to the student.

Of increasing importance in legal education is the role of practical, on-the-job training involving legal problems of actual clients. Legal clinic courses provide valuable client counseling experience, as well as participation in actual trials and appeals under the supervision of a licensed attorney.

The clinic has offices in the Law Programs Center. Representation is provided for students and indigent local residents. Both civil and certain referred criminal cases are accepted by the clinic.

Many classes in the School of Law involve a significant skills component in which students are placed in a simulated client-based situation and asked to respond appropriately. The curriculum includes a number of specially designated-skills classes that focus on practice skills. All law students are required to take at least one skills class prior to graduation.
FACILITIES AND RESOURCES

Robert A. Leflar Law Center

Additions to the Robert A. Leflar Law Center were completed in spring 2008, and the building is expected to be dedicated in October 2008. A new addition was opened for students in fall 2006, and faculty and staff moved into new offices in August 2007. The expanded facilities include a new entry hall facing the Arkansas Union and Mullins Library, a two-story lobby, four state-of-the-art classrooms on the third floor, an Arsga’s coffee shop on the second floor, the 203-seat E.J. Ball Courtroom and a new Student Services office. The Richard B. Atkinson Memorial Courtyard, designed by world-renowned artist and sculptor Jesús Moores, was completed in spring 2008.

Robert A. and Vivian Young Law Library

The Robert A. and Vivian Young Law Library includes more than a quarter million volumes, including cases and statutes from every American jurisdiction. The law library also contains a current and complete collection of legal encyclopedia, digests, tests, treatises, law reviews, reports of administrative agencies, and other government publications.

The Young Law Library is a depository for federal, state, and United Nations documents. It is the only U.N. documents library in the state and one of a few in the Midwest. The library includes a growing collection of agricultural law materials developed with assistance from the National Agricultural Law Center.

Students researching legal problems use traditional printed resources and electronic resources available across the Internet. Portals such as Loislaw.com, LEXIS, WESTLAW, the State of Arkansas Web page, the National Agriculture Law Center Web page, and the Young Law Library’s Web page help students identify and use appropriate resources. Computer labs are available for student use. The School of Law also has a wireless network accessible to all students, faculty, and staff.

While primarily designed for the use of Arkansas students, the Young Law Library also serves the research needs of the bench, the bar, and the University community. The Young Law Library provides an attractive and comfortable atmosphere for study and research. In-cluded within the Young Law Library is the Barrett Hamilton Law Library Mezzanine, a particularly attractive study and shelf space area. In addition, the main campus library, Mullins Library, is located near the Young Law Library. The two libraries work closely together to identify, acquire, and share resources throughout the campus.

Law Faculty

- Distinguished Professor Killenbeck (M.)
- University Professor Brill
- Professors Bailey, Beard, Brummer, Chik, Flaccus, Goforth, Guzman, Judges, Kilpatrick, Leflar, Matthews, Moberly, Mullane, Nance, Norvell, Schneider, and Sheppard
- Associate Professors Circo, Ewelukwa, and Kelley
- Clinical Associate Professors Baker, Coats, Foster, Killenbeck (A.), Sampson, and Tarvin
- Assistant Professors Dodson, Foster, and Snow
- Research Assistant Professors Pittman and O’Brien
- Visiting Clinical Assistant Professors Doss and Koch
- Professor of Law Emeritus Al Witte

OTHER PROGRAMS

Joint J.D./M.B.A. Program (Business Administration)

The School of Law and the Sam M. Walton College of Business offer students a juris doctor (J.D.) degree and a master’s of business administration (M.B.A.) degree concurrently. Students working to pursue their degrees in this joint program must gain admission to both the School of Law and the Graduate School and be accepted into the program of study leading to the M.B.A. degree. If the student is accepted into both programs, a maximum of six hours of approved upper-level elective law courses may be used as duplicate credit toward the M.B.A. degree and a maximum of six hours of approved graduate courses in business administration may be used as duplicate credit toward the J.D. degree, thus reducing the total time necessary for completion of the degree.

Joint J.D./M.P.A. Program (Public Administration)

The department of political science, the Graduate School, and the School of Law cooperate in a dual-degree program that allows a stu-dent to pursue a juris doctor (J.D.) degree and a master’s of public administration (M.P.A.) degree concurrently. Students must be admitted to the M.P.A. program, the School of Law, and the dual-degree program. If students enter the dual-degree program after enrolling in either the School of Law or the M.P.A. program, they must obtain admission to the other degree program and the dual-degree program during the first year of study.

The School of Law accepts a maximum of nine hours of M.P.A. courses to satisfy requirements for the J.D. degree. To qualify for J.D. credit, the M.P.A. courses must come from a set of core courses and must be approved by the School of Law. For purposes of the M.P.A. degree, 15 hours of elective courses may be taken in the School of Law, provided they are in an area of concentration approved by the direc-tor of the M.P.A. program. Students must earn a grade of B or higher in any M.P.A. course offered for credit toward the J.D.

Students admitted to the dual-degree program may commence their studies in either the School of Law or in the M.P.A. program but must complete first year course requirements before taking courses in the other degree program. If they do not maintain the academic or ethical standards of either degree program, students may be terminated from the dual degree program. Students in good standing in one degree program but not the other may be allowed to continue in the program in which they have good standing and must meet the degree requirements of that program. If for any reason a student admitted to the dual degree program does not complete the M.P.A. degree, he or she cannot count any hours of M.P.A. courses toward the J.D. degree. Likewise, M.P.A. students may not be able to count certain law courses if they decide to discontinue their studies in the School of Law. The J.D. degree will be awarded upon completion of all degree requirements; the M.P.A. will be awarded upon completion of the comprehensive examination and the internship (and intern-ship report), or alternately, six hours of additional coursework.

Joint J.D./M.A. Program

The School of Law and the Department of Political Science provide a dual J.D./M.A. in International Law and Politics. This program’s students must be admitted both to the School of Law and the Graduate School in the Depart-ment of Political Science.

A maximum of 12 hours of approved, upper-level elective law courses may be used as credit toward the M.A. and a maximum of nine hours of approved graduate courses in political science may be used as credit toward the J.D. degree, reducing the time necessary to complete both degrees by about one academic year. The M.A. program offers a six-hour thesis or a paid, six-month internship option designed to prepare students for a career in international politics or law.

The 12 hours of M.A. courses taken in the School of Law must relate to the study of international law and be approved by the student’s M.A. adviser and the Law School’s Associate Dean of Academic Affairs. The nine hours of approved graduate courses in political science may include: Comparative Political Analysis; Seminar in International Politics; Seminar in Contemporary
The School of Law

Problems; International Political Economy; and International Trade Policy. Other political science and graduate-level courses may be taken by permission. Paid internship credits cannot be applied toward the juris doctorate.

SCHOOL ADMISSION REQUIREMENTS

For complete details concerning admission to the School of Law, visit us at http://law.uark.edu/admissions/admissions.html or write to School of Law Office of Admissions, Leflar Law Center, University of Arkansas, Fayetteville, AR 72701, or telephone 479-575-3102 for a University of Arkansas School of Law Catalog of Studies or download a Catalog at http://law.uark.edu.

General Information

Except for students in the “3/3 Programs,” applicants must have completed all requirements for a bachelor’s degree from an accredited institution prior to enrolling in the School of Law. All applicants must take the Law School Admission Test (LSAT) administered by Law School Admission Services.

Admission of most students is based on applicants’ undergraduate grade-point averages and LSAT test scores. However, the School of Law also seeks a diverse student body with a broad set of backgrounds, interests, life experiences, perspectives, qualifications, and career objectives. In selecting a small percentage of applicants, therefore, the admissions committee may consider a number of factors relevant to a determination of how the applicant might contribute to such diversity within the School of Law.

There is no predetermined satisfactory grade-point average or law school admission test score. Admission is on a selective basis.

While admissions personnel are happy to answer any questions that applicants may have, the interview as a device for the applicant to “sell” themselves is not a part of the admissions process. The admissions committee works only with the written materials in an applicant’s file.

LSAT

The Law School Admission Test (LSAT) is given four times a year in Fayetteville and at other locations throughout Arkansas and in other states. Arrangements may be made online at http://lsac.org or by writing to Law School Admission Council, 662 Penn Street, Box 2000, Newtown, PA 18940-0998. Applicants for admission are urged to take the test at least nine months prior to expected entrance to law school.

LSDAS

The University of Arkansas participates in the Law School Data Assembly Service (LSDAS). The LSAT/LSDAS registration packet may be obtained online at http://www.lsac.org or by writing directly to Law School Admission Council, 662 Penn St., Box 2000, Newtown, PA 18940-0998. The packet includes instructions for providing transcripts of scholastic work for analysis by the LSDAS. The applicant should see that the LSAT score and LSDAS reports are sent to this school.

Pre-Law Study

No pre-law curriculum is prescribed at the University of Arkansas School of Law or at any other American law school. Experience has shown that students do equally well in law school and in law practice regardless of their differing educational backgrounds. As a result, no single “pre-law major” is required or even recommended. Students in a position to structure their college curricula should select courses that emphasize analytical and problem-solving skills and courses in which written work is vigorously edited. Arkansas admits applicants from a wide variety of college majors. The resulting diversity enhances and enriches the educational experience of all students.

The Admission Process

The University of Arkansas School of Law admits one beginning class in August of each year. Applications for admission may be completed online at http://law.uark.edu or can be obtained from the Office of Admissions, University of Arkansas School of Law, Leflar Law Center, Fayetteville, AR 72701.

Applications should be completed as early as possible. While applications are considered as long as there are openings in the entering class, few applications arriving after April 1 receive favorable action.

The admission process at Arkansas is a continuing one. As test reports and scores are received, admission decisions are made. It is impossible to give a final decision on some applicants until late spring.

An applicant whose admission has been approved will receive a tentative admission notice. The applicant will be required to deposit a $75 pre-registration fee. This fee is non-refundable but is applied to the regular registration fee when the student registers.

Other Admission Information

Persons who have attended other law schools should not follow the above procedure but should apply to the Associate Dean for Students at the School of Law as a transfer student, indicating previous attendance at another school. Failure to indicate such attendance will automatically void a tentative admission granted to such person.

A student may not register in the School of Law for any course without first complying with all admission requirements for regular law students. Undergraduate students not currently admitted to the School of Law may enroll for a course with special permission, but the credits will not count toward a J.D. degree.

Transfer Students

A student who has received a degree from an approved college and thereafter has completed work with satisfactory scholarship in a law school accredited by the American Bar Association is eligible to be considered for transfer to the University of Arkansas School of Law. The amount of transfer credit to be granted will depend upon the quality of performance and the relation of completed courses to the program of this school. Only credits or units (not grades) are transferable in any case, and even credits will not be accepted for any course or other work in which a grade below 2.0 or the equivalent has been given from the other law school. To qualify for a degree, the student must comply with the American Bar Association’s residency requirements, which require attendance at this Law School for at least 60 credit hours.

Failure to disclose attendance at another college or law school, expulsion, suspension, academic or other probation, or any pending matters relating to misconduct or dishonesty at another school is sufficient grounds to require withdrawal.

Visiting Students

A student in good standing at another fully accredited law school may apply for admission as a visiting student. Enrollment restrictions may limit class selection, and visiting students are not eligible to receive degrees from the School of Law.

3/3 Programs

The School of Law and the J. William Fulbright College of Arts and Sciences have collaborated in developing a program that will enable outstanding students to enter the School of Law after their third year of undergraduate studies. A student enrolled in the Fulbright College is eligible to begin study in the UA School of Law after the completion of at least 94 hours of college work if the following criteria are met:
1. Completion of all University, college, and major course requirements for their undergraduate degrees;  
2. A cumulative grade-point average of at least 3.50; and  
3. A score of at least 159 on the LSAT.  
Such students will receive a Bachelor of Arts or a Bachelor of Science after the completion of sufficient hours at the School of Law in order to meet the regular requirements of Fulbright College. These students will then receive a juris doctor (J.D.) degree after completing the required number of hours at the School of Law.  
In addition to the 3/3 program with the J. William Fulbright College of Arts and Sciences, the School of Law has a similar program with the department of agricultural economics and agribusiness in the Dale Bumpers College of Agricultural, Food, and Life Sciences. Exceptional students may enroll in the Law School in their fourth year of undergraduate study. Students will be required to have (1) completed at least 95 credit hours in the pre-law program, (2) a cumulative grade-point average in all college or University course work of at least 3.50 without grade renewal, and (3) an LSAT score of at least 159. The B.S.A. Agricultural Business degree will be granted after successfully completing 29 credit hours from the first-year School of Law course work.  
It is a requirement of the School of Law’s accreditation standards that no student be admitted to the University of Arkansas School of Law until they have completed at least three-fourths of the work necessary for the baccalaureate degree. The requirements embodied in these 3/3 programs satisfy this requirement.

COLLEGE SCHOLARSHIPS

Students are expected to make sufficient financial arrangements for the first year of study without the necessity of seeking employment. All law students are required to be full-time students, and no law student is permitted more than 20 hours per week of employment. First-year students are strongly discouraged from working while enrolled in classes. First-year students are expected to adhere to a standard curriculum; some courses in the upper-division curriculum are also required.  
Applications for financial aid may be obtained from the Office of Financial Aid, University of Arkansas, Hunt Hall 114, Fayetteville, AR 72701, 479-575-3806. You may also find more information about financial aid opportunities online at http://www.uark.edu/admin/fininfo/index.html. Applications for financial aid must be submitted to the Office of Financial Aid by April 1. Specific fees and costs are listed in the School of Law Catalog.

DEGREE REQUIREMENTS

For course information and degree requirements, see the School of Law Catalog online at http://law.uark.edu or by writing or calling the University of Arkansas School of Law, Leflar Law Center, Waterman Hall 147, Fayetteville, AR 72701, 479-575-3102.

GRADUATE STUDIES

The University of Arkansas School of Law is a professional degree program. In addition to the law degree, the Law School offers a graduate degree in agricultural law. The Graduate Program in Agricultural Law at the University of Arkansas is the only program in the United States that offers a Master of Laws (LL.M.) degree in agricultural law. Students enrolled in this unique and selective program have the opportunity for advanced study, creative research, and specialized professional training in the legal issues involved with agricultural production, marketing, and distribution. Graduates of the program are among the leaders of today’s agricultural law community, working in private practice, government, agribusiness, public policy, and academia. For more information, visit http://law.uark.edu or e-mail the graduate program at llm@uark.edu.

ACCREDITATIONS

The degree programs in the School of Law on the Fayetteville campus are accredited by both the American Bar Association and the Association of American Law Schools.
Reserve Officer Training Corps

Air Force ROTC
319 Memorial Hall, 479-575-3651/3652, E-mail: rotc030@uark.edu
Professor of Aerospace Studies
Lieutenant Colonel Lionel S. Mellott
World Wide Web
http://www.uark.edu/~afrotc/
Army ROTC
207 Army ROTC Building, 479-575-4251/5853,
Toll Free: 1-866-891-5538, Fax: 479-575-5855
E-mail: armyrotc@cavern.uark.edu
Professor of Military Science and Leadership
Lieutenant Colonel Clark B. Taylor
World Wide Web
http://www.uark.edu/armyhog/

The Reserve Officer Training Corps (ROTC) programs at the University of Arkansas provide physical and mental challenges that are not offered anywhere else on campus. The ROTC programs prepare young men and women for careers as professional military officers. In addition to academic studies, each service requires that all students attend a weekly leadership laboratory.

The freshman and sophomore courses are electives offered to male and female students who may earn four hours of academic credit in Aerospace Studies or up to six hours in Military Science. Absolutely no military obligation is incurred by non-scholarship students as a result of their enrollment in or completion of any or all of their freshman or sophomore ROTC courses.

U.S. AIR FORCE ROTC

In addition to the first two years of academic study (see above), the University, in cooperation with the U.S. Air Force, offers two years of advanced instruction in Aerospace Studies. The advanced instruction prepares students for the responsibilities and privileges of a commissioned officer. This advanced instruction offers three hours of academic credit per semester for Air Force cadets.

Air Force ROTC (AFROTC) cadets must attend and successfully complete field training. AFROTC cadets usually attend field training between their sophomore and junior years. Air Force ROTC cadets may volunteer to attend various professional development courses during their non-field-training summers.

Each student must successfully complete the summer field training to qualify for the advanced ROTC program. All veterans who have completed basic training and 180 days of service with any component of the U.S. Armed Forces are exempt from the freshman AFROTC course.

Financial assistance is also available in the form of monthly stipends for cadets officially enrolled in the advanced training program, who have successfully completed summer field training. Additionally, Air Force ROTC offers four-, three-, and two-year scholarships to competitively selected students. All scholarship students receive a monthly tax-free allowance ranging from $300 to $450, payment of tuition expenses, textbook payment, and payment of certain other fees. Additional information and applications for this assistance may be obtained on the Web at http://www.afrotc.com/.

A student who successfully completes the Advanced Course in Air Force ROTC and receives a degree will be awarded a commission and will serve on active duty in the U. S. Air Force.

All textbooks, instructional material, and equipment required for ROTC courses are furnished at no cost to the student.

SEE PAGE 311 FOR U.S. AIR FORCE ROTC (AERO) COURSES

U.S. ARMY ROTC

In addition to the first two years of academic study, the University, in cooperation with the U.S. Army, offers two years of advanced instruction in Military Science, Leadership, Ethics, and Personal Confidence. The advanced instruction prepares students for the responsibilities and privileges of a commissioned officer. This advanced instruction offers four hours of academic credit per semester for Army cadets. Additionally, all students enrolled in the final two years of ROTC receive a monthly tax-free allowance ranging from $450 to $500.

Army ROTC cadets attend a paid 33-day Leadership Development and Assessment Course (LDAC) between their junior and senior school years. Cadets may attend professional development training such as Leadership Internships, Airborne, Air Assault, British Exchange program, Northern Warfare, Nurse Summer Training Program, and Mountain Warfare. During summer field training, cadets receive room and board.

For students having a minimum of two academic years in school remaining (undergraduate, graduate, or a combination of the two), an alternate two-year program is offered. Students entering the two-year ROTC program attend a 28-day Leaders Training Course (LTC) during the summer. Students who attend LTC and are otherwise qualified are eligible for 2 year scholarships. Rising juniors, seniors and graduate students who meet the U.S. Army Cadet Command's Scholar-Athlete-Leader criteria and are unable to attend the LTC may elect to participate in the Accelerated Cadet Commissioning Training (ACCT) program conducted on the UA campus.

Students with high school-level military schooling (ROTC, NDCC, or
Military Academy) may qualify for the advanced ROTC program without completing the freshman or sophomore courses. All veterans who have completed basic training and 180 days of service with any component of the U.S. Armed Forces can receive full credit for the freshman and sophomore courses and may enter ROTC at the advanced level, once junior academic standing has been achieved.

Financial assistance is also available to qualified students enrolled in ROTC courses. The Army offers two, two-and-one-half, three, three-and-one-half, and four-year scholarships. Freshman or sophomore students who are not enrolled in Army ROTC may qualify for on-campus two or three-year scholarships. Juniors, seniors, and graduate students who have at least two full years of college remaining may also qualify for on-campus two or three-year scholarships. Scholarships can be used to pay for graduate school. Scholarship students receive a monthly tax-free allowance ranging from $300 to $500, payment of all tuition expenses, textbook payment ($1200 per year), and payment of certain other fees. Additionally, some qualified three- and four-year scholarship winners may receive free room and board, provided they meet the University of Arkansas requirements for the Room and Board Scholarship.

Army ROTC scholarship and advanced course students must agree to successfully complete at least one semester of American military history, LDAC, and a Staff Ride (Terrain Walk) prior to commissioning. Depending on the degree plan, Army ROTC may count from zero to 19 hours of elective credits for undergraduate students.

Army ROTC also offers a unique financial assistance program available to all non-scholarship Army ROTC Advanced Course students through the Simultaneous Membership Program (SMP). This program allows students with 27 or more hours to be enrolled in Army ROTC while simultaneously serving with an Army Reserve or Army National Guard unit. Financial benefits of this program presently provide approximately $600 to $1,200 per month to enrolled students. Prior Service National Guard and Army Reserve students may also qualify for the Montgomery G.I. Bill, MGIB Kicker, the Veterans Administration Workstudy Program, Federal Tuition Assistance, and/or the Arkansas Army National Guard Tuition Assistance Program. Army ROTC Scholarship Nurse Cadets may also receive reimbursement for expenses related to Nursing Uniforms, Immunizations, Clinical Fees, Nursing Malpractice Insurance and the NCLX-RN review and testing.

A student who successfully completes the Advanced Course in the Army ROTC program and receives a degree may be accepted for a regular or reserve commission in one of the sixteen branches of the Army.

All textbooks, instructional material, and equipment required for ROTC courses are furnished at no cost to students.

SEE PAGE 375 FOR U.S. ARMY ROTC (MILS) COURSES
University Faculty

The first date after the listing of each name indicates the year of first appointment at the University; the second date indicates the year of appointment to present faculty rank. Where they coincide, only one date is given.

Abraham, Jose K. – B.S., M.S. (Kerala University), Ph.D. (Cochin University), Research Associate Professor of Electrical Engineering, 2005

Ackerson, Michael Dean – B.S.Ch.E., M.S.Ch.E. (University of Missouri-Rolla), Ph.D. (University of Arkansas), P.E., Associate Professor of Chemical Engineering, 1988, 1992.


Adams, Paul – B.S. (Louisiana State University), Ph.D. (Case Western Reserve University), Assistant Professor of Chemistry and Biochemistry, 2007.


Adkins, Jr., Charles W. – B.S. (University of Central Arkansas), L.E. (U.S. Army Logistics Management College), Major (U.S. Army, Quartermaster Corps), Assistant Professor of Military Science and Leadership, 2001.

Adler, Jacob – A.B., Ph.D. (Harvard University), Associate Professor of Philosophy, 1984, 1991.


Alexander, Jerry W. – B.A. (Western Kentucky University), M.A. (Texas Tech University), Visiting Assistant Professor of Operations Management, 2002.

Allen, Carolyn Henderson – B.S. (Alabama State University), M.S. (Clark Atlanta University), Professor and Dean of University Libraries, 2000.


Allison, Neil T. – B.S. (Georgia College), Ph.D. (University of Florida), Associate Professor of Chemistry and Biochemistry, 1980, 1985.


Amason, Patricia – B.S.E. (University of Arkansas), M.A. (University of Kentucky), Ph.D. (Purdue University), Associate Professor of Communication, 1994, 2000.


Anders, Merle M. – B.S. (Iowa State University of Science and Technology), M.S., Ph.D. (University of Hawaii), Research Assistant Professor of Rice Cropping Systems, 1998.

Andersen, Craig R. – B.S. (Augustana College), M.S., Ph.D. (University of Minnesota), Associate Professor of Horticulture, 1985, 1995.


Ang, Simon S. – B.S.E.E. (University of Arkansas), M.S.E.E. (Georgia Institute of Technology), Ph.D. (Southern Methodist University), P.E., Professor of Electrical Engineering, 1988, 1995; Adjunct Professor of Biological and Agricultural Engineering, 2003.

Anthony, Nicholas B. – B.S., M.S. (Ohio State University), Ph.D. (Virginia Polytechnic Institute and State University), Professor of Poultry Science, 1987, 2000.

Antoine, Pierre Ph. – B.S. (University of Louvain, Belgium), Ph.D. (University of Minnesota), Adjunct Professor of Agronomy, 1987.


Apple, Jason K. – B.S. (Oklahoma State University), M.S., Ph.D. (Kansas State University), Professor of Animal Science, 1995, 2007.

Apple, Laurie M. – B.S., M.S. (University of Arkansas), Ph.D. (Oklahoma State University), Associate Professor of Human Environmental Sciences, 2000, 2008.

Arenberg, Nancy – B.A. (Grinnell College), M.A. (University of Illinois, Champaign-Urbana), Ph.D. (University of Arizona, Tucson), Associate Professor of Foreign Languages, 1996, 2002.


Arnold, Mark E. – B.S., Ph.D. (Northern Illinois University), Associate Professor of Mathematical Sciences, 1993, 1999.

Arrington, Andrea L. – B.A. (Knox College), M.A., Ph.D. (Emory University), Assistant Professor of History, 2007.

Ashton, Dub – B.S.B.A., M.B.A. (Memphis State University), Ph.D. (University of Georgia), Associate Professor of Marketing and Logistics, 1981.

Aslin, Larry – B.A. (University of Missouri-Columbus), Research Associate Professor of Communication Disorders, 1975, 1988.

Awika, Joseph – B.S. (Egerton University, Kenya), M.S., Ph.D. (Texas A&M University) Adjunct Assistant Professor of Food Science, 2005.


Bacon, Robert K. – B.S., M.S. (University of Arkansas), Ph.D. (Purdue University), Professor of Crop, Soil, and Environmental Sciences, 1984, 1993.

Bailey, Albert S. – B.A. (Miles College), M.S.L.S. (Case Western Reserve University), Professor and Librarian, 1979, 1989.


Bajwa, Sreekala G. – B.S., Ag.E. (Kerala Agriculture University, Tavanur, India), M.S. Ag.E. (Indian Institute of Technology, Kharagpur, India), Ph.D. (University of Illinois), Associate Professor of Biological and Agricultural Engineering, 2001, 2007.
Baker, Darlene Z. – B.S., M.S. (University of Arkansas), Ph.D. (Texas Woman's University), Adjunct Professor of Agricultural and Extension Education, 2001.


Baker, Linda L. – A.B. (Georgetown University), M.Sc. (London School of Economics and Political Science), J.D. (University of Arkansas), Clinical Associate Professor of Law, 1994, 2002.

Baker, Kim – B.S., M.S. (University of Arkansas), Ph.D. (University of South Carolina), Assistant Professor of Communication Disorders, 2007.

Baldwin, Vernoyce G. – B.S., M.S. (University of Arkansas), Director of Nursery School and Infant Development Center for the School of Human Environmental Sciences, 1996.

Balog, Janice M. – B.S. (Purdue University), M.S. (University of Rhode Island), Ph.D. (Purdue University), Research Assistant Professor of Poultry Science, 1992, 1998.

Bamberger, Uta – M.A. (University of California, Santa Barbara), Ph.D. (University of Massachusetts), Assistant Professor of Foreign Languages, 1997.

Banks, Claretha – B.A. (Clemson), M.S. (North Carolina State), Ph.D. (Virginia Tech), Assistant Professor of Workforce Development, 2002.

Barham, Brett – B.S., M.S., Ph.D. (Texas Tech University), Assistant Professor of Animal Science, 2005.

Barnes, Jeffery K. – B.S. (University of Rochester), M.S., Ph.D. (Cornell University), Curator in Entomology, 2002.

Barta, Kathleen M. – B.S. (Marquette University), M.S. (Boston College), Ed.D. (University of Arkansas), Associate Professor of Nursing, 1984, 1998.


Berthelot, Ronald J. – B.S. (Southeastern Louisiana University), M.S., Ed.D (University of Tennessee), Visiting Assistant Professor of Operations Management, 1993.

Billings, Sabrina – B.A. (University of Kentucky), Ph.D. (University of Chicago), Assistant Professor of Foreign Languages, 2007.

Blackwell, Marlon M. – B.Arch (Auburn University), M.Arch (Syracuse University), Professor of Architecture, 1992, 2002.

Bobbitt, Donald R. – B.S. (University of Arkansas), Ph.D. (Texas A&M University), Professor of Workforce Development, 1979, 2000.

Bonanno, F. Ramon – B.S. (U.S. Military Academy), M.S. (Iowa State University), Ph.D. (University of Arizona), Visiting Assistant Professor of Operations Management, 1994.


Braha, Lori A. – B.S. (The Ohio State University), M.A. (Cleveland State University), Ph.D. (University of California, Davis), Assistant Professor of Foreign Languages, 2004.

Bernhard-Jackson, Emily A. – B.A. (University of Iowa), M.A. (Boston College), Ph.D. (Brandeis University), Assistant Professor of English, 2005.

Bernhardt, John L. – B.S., M.S. (East Carolina University), Ph.D. (Clemson University), Research Assistant Professor of Entomology, 1979.

Bowles, Freddie A. – B.A. (University of Arkansas), Ph.D. (University of Tennessee), Visiting Assistant Professor of Workforce Development, 2002.

Boyce, Mark E. – B.A. (University of Kansas), M.A. (University of Kentucky), Ph.D. (University of Iowa), Professor of English, 1990, 1997.

Boyer, Mark E. – B.A. (Brigham Young University), M.S., Ph.D. (University of Illinois), Professor of English, 1990, 1997.

Bowman, Robin B. – B.A. (University of Iowa), M.A. (Boston College), Ph.D. (University of Virginia), Assistant Professor of Workforce Development, 2002.

Braha, John Van – A.B. (University of Illinois), M.A., Ph.D. (University of Missouri), Professor of Geosciences (Geology), 1999.


Brazzell, Johnetta – B.A. (Spelman College), M.A. (University of Chicago), Ph.D. (University of Michigan), Adjunct Associate Professor of Higher Education, 2002.

Breeding, Steve – B.S., M.S., D.M.V. (North Carolina State University), Adjunct Assistant Professor of Poultry Science, 1998.
Brescia, William F., Jr. – B.A. (Wartburg College), M.S. (University of Wisconsin), Ph.D. (Indiana University), Assistant Professor of Educational Technology, 2000.

Brewer, Dennis W. – B.A. (Sterling College), M.A., Ph.D. (University of Wisconsin), Professor of Mathematical Sciences, 1975, 1990.

Bridges, Ana J. – B.A. (University of Illinois), M.A. (Illinois State University), Ph.D. (University of Rhode Island), Assistant Professor of Psychology, 2007.


Briste, Roy – B.S., M.S., Ph.D. (Texas A&M University), Adjunct Professor of Poultry Science, 1994.


Brittenden, Judy B. – B.S. (University of Arkansas), M.A. (Louisiana State University), Associate Professor of Landscape Architecture, 1989, 1994.


Brock, Geoffrey – B.A. (Florida State University), M.A., Ph.D. (University of Pennsylvania), Assistant Professor of English, 2005.

Brogi, Alessandro – B.A. (University of Florence, Italy), M.A. (Ohio University), Ph.D. (University of Florence, Italy), Ph.D. (Ohio University), Assistant Professor of History, 2002.


Brown, Arthur V. – B.S., M.A. (Sam Houston State University), Ph.D. (North Texas State University), Associate Professor of Biological Sciences, 1974, 1981.


Broyles, John F. – B.S. (Georgia Institute of Technology), Professor of Kinesiology, 1970.


Bryant, Kelly J. – B.S., M.S. (University of Arkansas), Ph.D. (Texas A & M), Adjunct Associate Professor of Agricultural Economics and Agribusiness, 1993, 2000.

Brye, Kristofor R. – B.S. (University of Wisconsin – Stevens Point), M.S., Ph.D. (University of Wisconsin – Madison), Associate Professor of Crop, Soil and Environmental Sciences, 2001, 2005.

Buescher, Ronald W. – B.S., M.S., Ph.D. (Purdue University), Professor of Food Science, 1973, 1981.

Buffington, Jack E. – B.S.C.E. (University of Arkansas), M.S.C.E. (Georgia Tech University), Research Professor of Civil Engineering, 1996.

Burch, George V. – B.S. (Southwest Missouri State University), M.S., Ed.D. (University of Arkansas), Adjunct Assistant Professor of Agricultural and Extension Education, 1993.


Burleigh, Joseph G. – B.S. (University of Southwest Louisiana), M.S. (Louisiana State University), M.S. (University of Central Arkansas), Ph.D. (Louisiana State University), Adjunct Professor of Entomology, 1982, 1992.

Burton, Bill – B.S.N. (Southwest Missouri State University), M.S.N. (University of Missouri, Kansas City), Instructor of Nursing, 2000.


Bushkiuhl, John Francis – B.S.Ch.E. (University of Arkansas), Visiting Instructor in Chemical Engineering, 1994.

Buyurgan, Nebil – B.S. (Istanbul Technical University), M.S., Ph.D. (University of Missouri-Rolla), Assistant Professor of Industrial Engineering, 2004.

Cai, Li – B.S. (Peking University), M.S., Ph.D. (Georgia Institute of Technology), Assistant Professor of Electrical Engineering, 2003.

Callahan, Carolyn M. – B.S. (Ohio Northern University), M.S. (Bowling Green State University), Ph.D. (Michigan State University), Professor of Accounting and Doris M. Cook Chair in Accounting, 2001.

Calleja, Paul – B.S. (San Jose State University), M.S., Ph.D. (University of Arkansas), 2005.


Capogna, Luca – B.S. (Second University of Rome), Ph.D. (Purdue University), Professor of Mathematical Sciences, 1999, 2008.

Capps, Matthew – B.S., M.Ed. (Midwestern State University), Ed.D. (Texas A&M University), Assistant Professor of Educational Administration, 2004.

Carver, Sarah – B.S.E., M.S.E. (Henderson State University), Ed.D. (University of Arkansas), Visiting Assistant Professor of Vocational and Adult Education, 1995.


Carpenter, Dale – B.A. (Vanderbilt University), M.A. (Emory University), Professor of Journalism, 1994, 2006.

Carrier, Danielle J. – B.S., M.S., Ph.D. (McGill University, Canada), Associate Professor of Biological and Agricultural Engineering, 2000.


Casana, Jesse – B.A. (University of Texas, Austin), M.A., Ph.D. (University of Chicago), Assistant Professor of Anthropology, 2004.


Cavell, T. A. – B.A. (Louisiana State University), M.S. (Texas A & M University), Ph.D. (Louisiana State University), Professor of Psychology, 2002.


Chappell, David L. – B.A. (Yale University), Ph.D. (University of Rochester), Associate Professor of History, 1992, 1998.

Chaubey, Indrajeet – B.Tech (Agricultural Engineering, University of Allahabad, India), M.S.B.A.E. (University of Arkansas), Ph.D. (Oklahoma State University), Adjunct Associate Professor of Biological and Agricultural Engineering, 2006.

Cheung, H. Michael – B.S. (Case Institute of Technology), M.S., Ph.D. (Case Western Reserve University), Adjunct Professor of Chemical Engineering, 2006.

Chen, Pengyin – B.S., M.S. (Northwestern University of Agriculture), Ph.D. (Virginia Tech), Associate Professor of Crop, Soil, and Environmental Sciences, 2001, 2005.


Chisholm, Nophachai – B.M. (Chulalongkorn University, Thailand), M.M. (University of Northern Colorado), D.M.A. (University of Missouri-Kansas City), Assistant Professor, 2001.

Christiansen, Hope L. – B.A., M.A. (Kansas State University), Ph.D. (University of Kansas), Associate Professor of Foreign Languages, 1990, 1996.
Christy-McMullin, Kameri – B.A. (University of Missouri - Kansas City), M.S.W., Ph.D. (University of Kansas), Associate Professor of Social Work, 2007.
Circo, Carl J. – B.A. (University of Nebraska), J.D. (University of Nebraska School of Law), Associate Professor of Law, 2003, 2007.
Claussen, Edgar C. – B.S.Ch.E., M.S.Ch.E., Ph.D. (University of Missouri-Rolla), P.E., Professor of Chemical Engineering, Adjunct Professor of Biological and Agricultural Engineering, 1981, 1985.
Clifford, Heath – B.A. (University of Louisville), M.A. (Eastern Kentucky University), Instructor of Kinesiology, 1996.
Coats, Kimberly F. – B.S. (Arizona State University), J.D. (Oklahoma City University), Clinical Associate Professor of Law, 1999, 2002.
Cochran, Mark J. – B.S. (New Mexico State University), M.S., Ph.D. (Michigan State University), Professor of Agricultural Economics and Agribusiness, 1982, 1991.
Cochran, William A. – B.A. (Austin College), M.S. (Trinity University), Ph.D. (University of Arkansas), Clinical Assistant Professor of Rehabilitation, 1986.
Coffey, Kenneth – B.S. (University of Tennessee), M.S. (University of Kentucky), Ph.D. (University of Missouri), Professor of Animal Science, 1996, 2003.
Coker, Clifford M. Jr. – B.S., M.S. (University of Arkansas), Associate Professor and Extension Specialist of Plant Pathology, 2003.
Cole, Jack H. – B.S., M.S., Ph.D. (Oklahoma State University), P.E., Adjunct Professor of Mechanical Engineering, 2004.
Collier, James A. – B.S.I.E. (University of Arkansas), M.S.I.E. (Purdue University), Visiting Assistant Professor of Operations Management, 2000.
Collier, Marta – B.A. (Earlham College), M.A., Ph.D. (University of Iowa), Associate Professor of Curriculum and Instruction, 1996, 2003.
Collins, Kathleen – B.A., M.A., Ph.D. (University of California at Santa Barbara), Assistant Professor in Special Education, 2002.
Condray, Kathleen – B.A. (University of Arkansas), M.A., Ph.D. (University of Illinois at Urbana-Champaign), Associate Professor of Foreign Languages, 2002, 2008.
Conge, Patrick J. – B.S., M.A. (Arizona State University), Ph.D. (University of Texas), Associate Professor of Political Science, 1996, 2002.
Conway, Cheryl L. – B.S. (Southwest Missouri State University), M.A. (University of Arkansas), M.L.S. (University of Arizona), Associate Professor and Associate Librarian, 1981, 1986.
Cook, Peggy – B.S. (Arkansas Tech University), M.S., Ph.D. (University of Arkansas), Adjunct Assistant Professor of Poultry Science, 1996.
Coon, Craig – B.S., M.S., Ph.D. (Texas A&M University), Professor of Poultry Science, 1997.
Coon, Lynda L. – B.A. (James Madison University), M.A., Ph.D. (University of Virginia), Associate Professor of History, 1990, 1996.
Corrigan, Lisa M. – B.A. (University of Pittsburgh), M.A., Ph.D. (University of Maryland-College Park), Assistant Professor of Communication, 2007.
Costello, Thomas A. – B.S.Ag.E., M.S.Ag.E. (University of Missouri), Ph.D. (Louisiana State University), Associate Professor of Biological and Agricultural Engineering, 1986, 1992.
Costrell, Robert M. – B.A. (University of Michigan), Ph.D. (Harvard University), Professor of Education Reform and Economics and Endowed Chair in Education Accountability, 2006.
Cote, Robert R. – B.S. (Salve Regina University), M.B.A. (Golden Gate University), Visiting Assistant Professor of Operations Management, 2000.
Cothren, Jackson – B.S. (United States Air Force Academy), M.S., Ph.D. (Ohio State University), Assistant Professor of Geography, 2004.
Counce, Paul A. – B.S. (University of Tennessee-Martin), M.S. (Purdue University), Ph.D. (University of Georgia), Professor of Crop, Soil, and Environmental Sciences, 1983, 1992, 2003.
Couvillon, Rick J. – B.S.M.E. (University of Arkansas), M.S.M.E., Ph.D. (Georgia Institute of Technology), P.E., Associate Professor of Mechanical Engineering, 1981, 1986.
Cowling, Dan C. – B.A., M.A. (University of Arkansas), Adjunct Assistant Professor of Communication, 2002.
Cox, Brady R. – A.S. (College of Eastern Utah), B.S. (Utah State University), M.S. (University of Texas), Ph.D. (University of Texas), Assistant Professor Civil Engineering 2006.
Crandall, Mardel A. – B.S. (Kansas State University), M.S. (Purdue University), Instructor of Human Environmental Sciences, 1995.
Crandall, Philip G. – B.S. (Kansas State University), M.S., Ph.D. (Purdue University), Professor of Food Science, 1989, 1997.
Cronan, Timothy P. – B.S. (University of Southwestern Louisiana), M.S. (South Dakota State University), D.B.A. (LouisianaTech University), Professor and the M. D. Matthews Endowed Chair in Information Systems, 1979, 1986.
Crone, John V. – B.Landscape Arch. (University of Georgia), M.Regional Planning (University of Pennsylvania), Professor of Landscape Architecture, 1980, 1991.
Curtin, Kathryn D. – B.S. (Pennsylvania State University), M.S. (Yale University), Ph.D. (Harvard University), Assistant Professor of Biological Sciences, 2004.
D’Alissara, JoAnn – B.A. (State University of New York at New Paltz), A.M., Ph.D. (University of Illinois-Urbana-Champaign), Associate Professor of Anthropology, 1999, 2005.
Daniels, Donna – B.A., M.L.S. (Western Michigan University), Associate Professor and Associate Librarian, 1982, 1988.
Daniels, Michael B. – B.S. (Pennsylvania State University), M.S., Ph.D. (University of Arkansas), Professor of Crop, Soil, and Environmental Sciences, 1996, 2000.
Davidson, Fiona M. – B.A. (Newcastle Upon Tyne Polytechnic), M.A., Ph.D. (University of Nebraska-Lincoln), Associate Professor of Geography, 1992, 1998.
Davis, Danny J. – B.S. (Rose Polytechnic Institute), Ph.D. (Ohio State University), Professor of Chemistry and Biochemistry, 1979, 1990.
Davis, Fred D. – B.S. (Wayne State University), Ph.D. (Massachusetts Institute of Technology), Distinguished Professor and David D. Glass Chair in Information Systems, 1999, 2006.

Davis, James N. – B.A. (Ouachita University), M.A. (University of Chicago), Ph.D. (University of Minnesota), Associate Professor of Foreign Languages (French), 1993, 1999.

Davis, Ralph K. – B.S., M.S., Ph.D. (University of Nebraska, Lincoln), Professor of Geology, 1994, 2007.

Davis, Stephen – B.S., D.M.V. (Kansas State University), Adjunct Assistant Professor of Poultry Science, 1996.


DeCoster, Vaughn A. – B.A. (University of Arkansas), M.S.W. (Tulane University), Ph.D. (Louisiana State University), Associate Professor of Social Work, 2003, 2006.

de Noble, Timothy E. – B.S.Arch. (University of Texas at Arlington), M.Arch. (Syracuse University), Associate Professor of Architecture, 1996, 2004.


Delery, John E. – B.S. (Tulane University of Louisiana), M.S. (Memphis State University), Ph.D. (Texas A&M University), Professor of Management and Raymond F. Orr Chair in Management, 1992, 2005.

Del Gesso, Emilio – B.A. (University of Rome), Adjunct Assistant Professor of Architecture, 1989.

Dennis, Norman D., Jr. – B.S.C.E., M.S.C.E. (University of Missouri-Rolla), M.S.B.A. (Boston University), Ph.D. (University of Texas), PE, Professor of Civil Engineering, 1996, 2000.


Denton, James H. – B.S., M.S., Ph.D. (Texas A&M University), Professor of Poultry Science, 1992.


Devareddy, Latha – B.Sc. (Madras University, India), M.Sc. (Queen Mary's College), M.S. (Oklahoma State University), Ph.D. (Oklahoma State University), Assistant Professor of Food Science, 2008.

DeVore, Jack B., Jr. – B.S., M.S., Ed.S. (Kansas State College of Pittsburg), Ph.D. (Kansas State University), Associate Professor of Workforce Development, 1970, 1976.

Di, Jia – B.S., M.S. (Tsinghua University), Ph.D. (University of Central Florida), Assistant Professor of Computer Science & Computer Engineering, 2005.

DiBrezzo, Rosalie – B.S. (Brooklyn College), M.S. (Indiana University), Ph.D. (Texas Woman's University), University Professor of Kinesiology, 1983, 2006.

Dillard, Tom W. – B.S. (University of Central Arkansas), M.A. (University of Arkansas), Professor and Librarian, 2004.

Dingman, Shannon W. – B.S., M.S. (Pittsburg State University), M.S., Ph.D. (University of Missouri-Columbia), Assistant Professor of Mathematical Sciences, 2007.

Dixon, Bruce L. – B.A. (University of California-Santa Barbara), M.S., Ph.D. (University of California-Davis), Professor of Agricultural Economics, 1984, 1986.


Doddridge, Benjamin – B.S. (Memphis State University), M.B.A. (Michigan State University), Visiting Assistant Professor of Operations Management, 1984.

Dodson, Scott – B.A. (Rice University), J.D. (Duke University), Assistant Professor of Law, 2006.


Dong, Elaine X. – B.S. (Beijing Normal University), M.L.S. (Wuhan University), M.L.S. (McGill University), Assistant Professor and Associate Librarian, 2005.

Donoghue, Ann – B.S. (San Diego State University), M.S. (Texas A&M University), Ph.D. (F. Edward Herbert School of Medicine), Research Professor of Poultry Science, 2000.

Donoghue, Daniel – B.S. (Medical University of South Carolina), M.S. (Brigham Young University), Ph.D. (Texas A&M University), Post Doctoral Fellow (Rutgers University, Cook College), Associate Professor of Poultry Science, 2000, 2005.

Doss, Angela – B.A., (University of Toronto), M.A., J.D. (University of Arkansas), Visiting Clinical Associate Professor of Law, 2006.


Dowdle, Andrew – B.A. (University of Tennessee), M.A. (University of Iowa), Ph.D. (Miami University), Assistant Professor of Political Science, 2003.

Dowling, Ashley P.G. – B.S. (University of Arizona), Ph.D. (University of Michigan), Assistant Professor of Entomology, 2008.


Du, Yuchun – B.S. (Shaanxi University of Technology, China), Ph.D. (Kagoshima University, Japan), Assistant Professor of Biological Sciences, 2007.

Durdik, Jeannine M. – B.S. (Purdue University), Ph.D. (Johns Hopkins University), Professor of Biological Sciences, 1994, 2004.

Durham, Bill M. – B.A. (Rutgers, the State University of New Jersey), M.S. (Clarkson College of Technology), Ph.D. (Wayne State University), Professor of Chemistry and Biochemistry, 1979, 1990.


Dutton, Donnie – B.S., M.Ed. (North Carolina State University), Ph.D. (Florida State University), Professor of Workforce Development, 1974.


Dwyer, Mavouneen – B.A. (University of Montreal), M.F.A. (University of Texas-Austin), Associate Professor of Drama, 1999, 2005.

Dye, Judith – B.A. (Michigan State University), M.S.L.S. (Atlanta University), Associate Professor and Associate Librarian, 2002.

Eason, Steven G. – B.S. (New Mexico State University), M.S. (Leigh University), Adjunct Professor of Chemical Engineering, 2003.

Edgar, Leslie – B.S., M.S. (Utah State University), Ph.D. (Texas A&M University), Assistant Professor of Agricultural and Extension Education, 2007

Edwards, Findlay G. – B.S.C.E., B.S.G.E., M.S.C.E. (New Mexico State University), M.M. (University of New Mexico), Ph.D. (New Mexico State University), PE, Assistant Professor of Civil Engineering, 1999.

Eichmann, Raymond – B.A., M.A. (University of Arkansas), Ph.D. (University of Kentucky), Professor of Foreign Languages (French), 1969, 1983.

El-Ghazaly, Samir – B.S. (Cairo University), M.S. (Cairo University), Ph.D. (University of Texas at Austin), Distinguished Professor of Electrical Engineering, 2007.

Ellers, Linda – B.S.E., M.Ed. (University of Arkansas, Little Rock), Ph.D. (Louisiana State University), Assistant Professor of Curriculum and Instruction, 2001.

Elliott, Beverly – B.S.E., M.Ed. (University of Arkansas), Associate Professor of Educational Administration, 1990, 1996.


El-Shenawee, Magda – B.S., M.S. (Assuit University, Egypt), Ph.D. (University of Nebraska), Assistant Professor of Electrical Engineering, 2000.
Emmert, Jason – B.S., M.S., Ph.D. (University of Illinois), Associate Professor of Poultry Science and Poultry Federation Chair, 1997, 2002.

Erf, Gisela F. – B.S., M.S. (University of Guelph, Canada), Ph.D. (Cornell University), Professor of Poultry Science and Avian Immunology Professorship, 1994, 2004.

Erickson, Kirstin C. – B.A. (St. Olaf College), M.A., Ph.D. (University of Wisconsin-Madison), Assistant Professor of Anthropology, 2001.

Eroglu, Cuneyt – B.S. (Middle East Technical University), M.S. (University of Miami), Ph.D. (The Ohio State University), Assistant Professor of Marketing and Logistics, 2006.

Espinoza, Leonel A. – B.S. (Iowa State University), M.S., Ph.D. (University of Florida), Associate Professor of Crop, Soil, and Environmental Sciences, 2003, 2008.

Etges, William J. – B.S. (North Carolina State University), M.S. (University of Georgia), Ph.D. (University of Rochester), Professor of Biological Sciences, 1988, 2004.


Evans-White, Michelle – B.S., B.A., M.S. (Kansas State University), Ph.D. (University of Notre Dame), Assistant Professor of Biological Sciences, 2008.


Fant, Earnest W. – B.S.E. (University of Arkansas), M.S.E. (Southern Methodist University), Ph.D. (Texas Tech University), PE., Associate Professor of Industrial Engineering, 1988, 1994.

Farah, Mounir A. – B.A. (Oklahoma City University), M.A. (University of Bridgeport), Ph.D. (New York University), Professor of Curriculum and Instruction, 1995, 1999.


Farmer, Frank L. – B.A. (Fort Lewis College), M.S. (University of Arkansas), Ph.D. (Pennsylvania State University), Professor of Human Environmental Sciences, 1987, 1995.

Fieldman, William A. – B.S. (Tufts University), M.S. (Northwestern University), Ph.D. (Queen's University), Professor of Mathematical Sciences, 1971, 1981.


Fields, Darell W. – B.S. (University of Texas, Arlington), M.Arch., Ph.D. (Harvard University), Associate Professor of Architecture and African American Studies, 2005.


Finn, Don W. – B.S. (Texas Tech University) M.B.A. (Arkansas State University), Ph.D. (University of Arkansas) Professor of Accounting and the Garrison/ Wilson Chair in Accounting, 2003.

Fitch-Hilgenberg, Marjorie E. – B.S., M.S. (University of Arkansas), Ph.D. (University of Wisconsin), Associate Professor of Human Environmental Sciences, 1999, 2005.

Fitzpatrick, Kevin M. – B.A. (Susquehanna University), M.A. (University of South Carolina), Ph.D. (State University of New York at Albany), Professor of Sociology and Bernice Jones Chair of Community and Family Institute, 2005.

Fitzpatrick, Lynn E. – B.S. (Cornell University), M. Arch. (Rice University), Clinical Assistant Professor of Architecture, 1999.


Foley, Larry – B.A. (University of Arkansas), M.S. (University of Central Arkansas), Professor of Journalism, 1993, 2005.

Foote, Jerald C. – B.A. (University of Northern Colorado), M.S., R.D., Ph.D. (Texas Tech University), Assistant Professor of Human Environmental Sciences, 2002.


Foster, Sharon E. – B.A. (University of California at Los Angeles), J.D. (Loyola Law School), LL.M. (University of Edinburgh, Scotland), Assistant Professor of Law, 2000, 2006.

Fredrick, David C. – B.A. (University of Kansas), Ph.D. (University of Southern California), Associate Professor of Foreign Languages, 1991, 1997.


Freund, Joel S. – B.S., M.S., Ph.D. (Northwestern University), Associate Professor of Philosophy, 1970, 1976.

Fritsch, Ingrid – B.S. (University of Utah), Ph.D. (University of Illinois-Urbana/Champaign), Professor of Chemistry and Biochemistry, 1992, 2006.

Fu, Huaxiang – B.S. (University of Science and Technology of China), M.S., Ph.D. (Fudan University), Associate Professor of Physics, 2002, 2007.

Fukushima, Tatsuya – B.A. (Kanto Gakuin University, Japan), M.A., Ph.D. (Oklahoma State University), Associate Professor of Foreign Languages, 2001, 2007.

Funkhouser, Eric M. – B.A., M.A. (University of Nebraska), Ph.D. (Syracuse University), Associate Professor of Philosophy, 2004, 2008.

Fussell, Leonard – B.S., M.S., D.V.M. (University of Georgia), Adjunct Assistant Professor of Poultry Science, 1996.


Gadbury, M. Shane – B.S., M.S., Ph.D. (University of Arkansas), Assistant Professor of Animal Science, 2006.

Ganson, Judith A. – B.A. (Purdue University), M.S. Library Science (University of Illinois, M. Administration (University of California, Riverside), Associate Professor and Associate Librarian, 2001.

Ganster, Daniel C. – B.A. (Wabash College), M.S., Ph.D. (Purdue University), Professor and Charles C. Fichtner Chair in Management, 1990.

Garcia, M. Elena – B.A. (University of Arkansas at Little Rock), M.S., Ph.D. (University of Arkansas), Associate Professor of Horticulture, 2005.

Gardisser, Dennis – B.S., M.S., Ph.D. (University of Arkansas), Research Professor of Biological and Agricultural Engineering, 1995.

Garner, Jerald L. – B.S. (Park College), M.S. (University of Arkansas), Visiting Assistant Professor of Operations Management, 1996.


Gattis, Carol S. – B.S.E.E., M.S.E.E., Ph.D. (University of Arkansas), Visiting Assistant Professor of Operations Management and Adjunct Associate Professor of Industrial Engineering, 2002.


Gauch, John – B.Sc., M.Sc. (Queen's University, Canada), Ph.D. (University of North Carolina), Professor of Computer Science and Computer Engineering, 2008

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Gea-Banacloche, Julio R. – Licenciado en Ciencias Fisicas (Universidad Autonoma de Madrid), Ph.D. (University of New Mexico), Professor of Physics, 1989, 2000.

Gealy, David R. – B.S. (University of Nebraska), M.S., Ph.D. (University of Illinois), Visiting Professor of Crop and Soil Environmental Sciences, 1996.


Gentry, G. Marie – B.S. (Arizona State University), M.S. (Iowa State University), Ph.D. (Texas Tech University), Associate Professor of Interior Design, 2000.

Gentry, Johnnie L., Jr. – B.S. (Murray State University), M.S. (University of Kentucky), Ph.D. (Columbia University), Professor of Biological Sciences, 1979, 2005.

George, James E. – B.S. (University of Arkansas at Little Rock), M.S. (Air Force Institute of Technology), Visiting Assistant Professor of Operations Management, 1996.

Geren, Collis R. – B.S. (Northeastern State College), M.S. (Kansas State College of Pittsburg), Ph.D. (Oklahoma State University), Professor of Chemistry and Biochemistry, 1976, 1984.


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Gibbons, James W. – B.S. (Hendrix College), M.S., Ph.D. (University of Arkansas), Research Assistant Professor of Rice Breeding, 1999.


Gibson, Tess – B.A. (Baker University), M.M.S. (Emporia State University), M.A. (University of South Dakota), Assistant Professor and Assistant Librarian, 2005.


Goggin, Fiona L. – B.S. (Cornell University), Ph.D. (University of California, Davis), Assistant Professor of Entomology, 2001.

Gohlke, Lyle A. – B.S., M.S., Ph.D. (Purdue University), Associate Professor of Higher Education, 1982.


Goodman-Strauss, Chaim – B.S., Ph.D. (University of Texas), Professor of Mathematical Sciences, 1994, 2006.

Goodstein-Murphy, Ethel S. – B.S., B.Arch. (City College, City University of New York), M.A. (Cornell University), Ph.D. (University of Michigan), Professor of Architecture, 1992, 1998.


Graff, Thomas Oscar – B.S., M.A. (Western Illinois University), Ph.D. (University of Kansas), Associate Professor of Geography, 1979, 1997.


Griggs, Carl L. – B.S.Ch.E., M.S.Ch.E., Ph.D. (University of Arkansas), Professor of Biological and Agricultural Engineering, 1967, 1983.

Grimmelsman, Kirk A. – B.S. (University of Cincinnati), M.S. (University of Cincinnati), Ph.D. (Drexel University), Assistant Professor of Civil Engineering, 2007.


Gross, Eitan – B.S., Ph.D. (Bar Ilan University, Israel), Assistant Professor of Physics, 1993, 2006.

Gross, Roger D. – B.A. (University of Oregon), M.A. (University of Minnesota), Ph.D. (University of Oregon), Professor of Drama, 1980.


Guccione, Margaret J. – B.S. (St. Joseph's College), M.A. (Miami University), Ph.D. (University of Colorado), Professor of Geology, 1979, 2001.

Gunter, Stacey A. – B.S. (Oregon State University), M.S. (University of Nevada Reno), Ph.D. (Oklahoma State University), Professor of Animal Science, 1996, 2006.

Gunter, Timothy – B.S.E., M.M. (University of Arkansas), Adjunct Assistant Professor of Music, 1991.

Guo, Chunlei – B.S. (Changchun Institute of Optics and Fine Mechanics, China), Ph.D. (University of Connecticut), Assistant Professor of Physics, 2001.


Gupta, Rajendra – B.Sc, M.Sc. (Agra University), Ph.D. (Boston University), Professor of Physics, 1978, 1985.

Gupta, Usha – B.S. (Delhi University), M.L.S. (Simmons College), Professor and Librarian, 1985, 1993.

Haggard, Brian – B.S. (University of Missouri), B.S.W. (University of Arkansas), Ph.D. (Oklahoma State University), Associate Professor of Biological and Agricultural Engineering, 2001, 2006.

Hagstrom, Fran – B.A. (Southwest Baptist University), M.A. (St. Louis University), M.S. (UT HSC-Houston, TX), Ph.D. (Clark University), Assistant Professor of Communication Disorders, 2002.

Hale, William Micah – B.S., M.S., Ph.D. (Oklahoma University), Assistant Professor of Civil Engineering, 2002.


Ham, Lindsay S. – B.A., M.A., Ph.D. (University of Nebraska-Lincoln), Assistant Professor of Psychology, 2007.


Hanlin, Todd C. – B.A. (Wabash College), M.A. (University of Kansas), Ph.D. (Bryn Mawr College), Professor of Foreign Languages (German), 1981, 1994.

Harbour, William Davis Jr. – B.S., M.S. (University of Oklahoma), Ph.D. (University of Arkansas), Instructor of Electrical Engineering, 2006.

Hardgrave, Bill C. – B.S. (Arkansas Tech University), M.B.A. (Southwest Missouri State University), Ph.D. (Oklahoma State University), Professor and Edwin and Karlee Bradberry Endowed Chair in Information Systems, 1993, 2006.


Hargis, Billy – B.S. (University of Minnesota), M.S. (University of Georgia), D.V.M.,
Ph.D. (University of Minnesota), Professor of Poultry Science and Sustainable Poultry Health Chair, 2000.


Harrington, Robert J. – B.A. (Boise State University), M.B.A., Ph.D. (Washington State University), and Twenty-First Century Endowed Chair in Hospitality and Restaurant Mgmt. and Associate. Professor, 2007, 2008.

Harris, William C. – Major, USAF; B.S. (University of Arkansas), M.S. (Troy State University), Assistant Professor of Aerospace Studies, 1997.

Harter, William G. – B.S. (Hiram College), Ph.D. (University of California, Irvine), Professor of Physics, 1985.

Hausmann, Sonja – B.S. (Technische Universitat Munich), Ph.D. (University of Bern), Assistant Professor of Geosciences, 2006.

Havens, Jerry A. – B.S.Ch.E. (University of Arkansas), M.S.Ch.E. (University of Colorado), Ph.D. (University of Oklahoma), P.E., Distinguished Professor of Chemical Engineering, 1970, 1987.

Haydar, Adnan F. – B.A., M.A. (American University of Beirut), Ph.D. (University of California at San Diego), Professor of Foreign Languages, 1993.

Hays, Donald – B.A. (Southern Arkansas University), M.F.A. (University of Arkansas), Associate Professor of English, 1990.

Heard, Douglas R. – B.A. (University of Wisconsin, Madison), M.A., Ph.D. (University of Iowa), Associate Professor of Finance, 1989.


Hehn, John G. – B.S.Ed. (Ohio University), M.A. (Western Michigan University), Ph.D. (Michigan State University), Professor of Geography, 1977, 1986.

Henderson, Charlene – B.A., B.P.A./M.P.A. (Mississippi State University), Ph.D. (Arizona State University), Assistant Professor and BDK Lectureship in Accounting, 2005.

Hendrix, William H. – B.S. (Clemson), M.S. (University of Arkansas), Ph.D. (Iowa State University), Professor of Entomology, 1996.

Henry, Ralph L. – B.S.E. (University of Kansas), M.S., Ph.D. (Kansas State University), Professor of Biological Sciences, 1996, 2005.

Hensley, David L. – B.S. (University of Missouri), M.S., Ph.D. (Purdue University), Professor of Horticulture, 2000.

Herman, Gregory S. – B.Arch. (University of Cincinnati), M.Arch. (Rice University), Associate Professor of Architecture, 1991, 1998.


Hestekin, Christa N. – B.S. (University of Kentucky), Ph.D. (Northwestern University), Assistant Professor of Chemical Engineering, 2006.

Hestekin, Jamie A. – B.S. (University of Minnesota), Ph.D. (University of Kentucky), Assistant Professor of Chemical Engineering, 2006.

Hettiarachchy, Navam S. – B.S. (University of Madras, India), M.S. (Edinburgh University, Scotland), Ph.D. (University of Hull, England), University Professor of Food Science, 1992, 2006.

Hewitt, Paul M. – B.A. (San Jose State College), M.A. (California State University), M.Ed. (Loyola-Marymount University), Ed.D. (University of the Pacific), Assistant Professor of Educational Leadership, 2007.

Heymsfield, Ernest – B.S., M.S. (Polytechnic Institute of New York), Ph.D. (City University of New York), Assistant Professor of Civil Engineering, 2001.


Higgins, Kristen – B.A. (Vanderbilt University) M.S., Ph.D. (University of Arkansas), Visiting Assistant Professor of Counselor Education, 2006.

Hilsenroth, Mark J. – B.A. (University of Akron), Ph.D. (University of Tennessee), Assistant Professor of Psychology, 1996.


Hinton, James F. – B.S. (University of Alabama), M.S., Ph.D. (University of Georgia), University Professor of Chemistry and Biochemistry, 1965, 1989.

Hipple, William J. – B.S. (U.S. Naval Academy), M.S. (George Washington University), Ph.D. (University of Texas), Visiting Assistant Professor of Operations Management, 1995.


Hofer, Adrianna Rossiter – B.S. (Federal University of Pernambuco, Brazil), M.S. (Federal University of Rio de Janeiro, Brazil), Ph.D. (University of Maryland), Visiting Assistant Professor of Marketing and Logistics, 2008.

Hofer, Christian – B.A. (European School of Business), Ph.D. (University of Maryland), Assistant Professor or Marketing and Logistics, 2007.

Hogan, Jeffrey – B.S., Ph.D. (University of New South Wales), Associate Professor of Mathematical Sciences, 2000, 2006.


Holyfield, Lori – B.S.E., M.A. (University of Arkansas), Ph.D. (University of Georgia), Associate Professor of Sociology, 1995, 2001.

Hopkins, John D. – B.S., M.S. (Clemson), Ph.D. (University of Arkansas), Assistant Professor of Entomology, 2002.

Horowitz, Andrew – B.S. (University of Maryland), M.S., Ph.D (University of Wisconsin), Professor of Economics, 1997, 2006.


Howell, Terry A. – B.S.Ag.E. (Texas A&M University), Ph.D. (University of Wisconsin), Adjunct Research Assistant Professor of Food Science, Adjunct Assistant Professor of Biological and Agricultural Engineering, 2002.


Hoyer, Jennifer – B.A. (Tulsa University), M.A., Ph.D. (University of Minnesota), Assistant Professor of Foreign Languages, 2007.

Huang, Po-Hao Adam – B.S., B.S.E., M.S., Ph.D. (University of California at San Diego), Professor of Electrical Engineering, 2000.

Huff, Geraldine – B.S., M.S., Ph.D. (University of Arkansas), Research Assistant Professor of Poultry Science, 1994, 1998.


Huggins, Denise W. – B.A., M.A., Ph.D. (Texas Woman's University), Assistant Professor of Sociology, 2000.

Hughes, Jean S. – B.S. (University of Central Arkansas), M.Ed., Ed.D. (University of Arkansas), Assistant Professor of Recreation, 2000.

Hughes, Michael L. – B.S. (University of Virginia), M.Arch. (Princeton University), Assistant Professor of Architecture, 2006.

Hulen, Jeannie L. – B.F.A. (Kansas City Art Institute), M.A. (Louisiana State University), Assistant Professor of Art, 2002.


Hurd, Fred Coy – B.S. (Arkansas State University), M.S., Ph.D. (University of Arkansas), Visiting Assistant Professor of Operations Management, 2002.

Imbeau, Marcia B. – B.A. (Hendrix College), M.Ed. (University of Arkansas at Little Rock), Ph.D. (University of Connecticut), Associate Professor of Special Education, 1991, 1997.

Ingels, Neil B., Jr. – B.S.E.E. (University of Arkansas), M.S.E.E. (University of Santa Clara, California), Ph.D. (Stanford University, California), Adjunct Professor of Biological and Agricultural Engineering, 2003.

Ito, Shoichi – B.S. (Miyazaki University), M.S. (University of Arkansas), Ph.D. (Texas A&M University), Adjunct Professor of Agricultural Economics and Agribusiness, 2004.

Ivey, D. Mack – B.S., Ph.D. (University of Georgia), Associate Professor of Biological Sciences, 1992, 1998.

Jack, Nancy E. – B.S. (Tarleton State University), M.S., Ph.D. (New Mexico State University), Assistant Professor of Animal Science, 2000, 2004.
Kim, Jin-Woo – B.S. (Technology, Seoul National University), B.S. (University of Iowa), M.S. (University of Wisconsin), Ph.D. (Texas A&M University), Associate Professor of Biological and Agricultural Engineering, 2001, 2005.

Kim, Seok Eun – B.P.A. (University of Seoul), M.P.A. (Iowa State University), Ph.D. (University of Georgia), Assistant Professor of Political Science, 2007.


King, Jerry – B.S., M.S. (Butler University), Ph.D. (Northeastern University), Professor of Chemical Engineering, 2005.


Kirkpatrick, LaVonne – B.S. (Northern State College, South Dakota), M.S., Ed.D. (University of South Dakota), Assistant Professor of Curriculum and Instruction, 1984.

Kirkpatrick, Terrence L. – B.S.A., M.S. (University of Arkansas), Ph.D. (North Carolina State University), Professor of Plant Pathology, 1984, 1997.

Kirkwood, Patricia E. – B.S. (Pacific Lutheran University), M.L.L.S. (University of Illinois, Urbana-Champaign), Associate Professor and Associate Librarian, 2004.

Kissinger, Daniel B. – B.A. (University of Wisconsin), M.S. (University of Nevada, Las Vegas), Ph.D. (University of South Carolina), Assistant Professor of Counselor Education, 2004.

Klues, Heidi A. – B.S., M.S. (University of Florida), Ph.D. (Louisiana State University), Assistant Professor of Kinesiology, 2007.

Koch, Karen – B.A. (Austin College, J.D. (Hamline University), Professor of Law, 2006, 2008.

Koch, Lynn – B.S., M.S. (University of Arizona), Ph.D. (University of Wisconsin-Madison), Associate Professor of Rehabilitation Education and Research, 2006.

Koepp, Roger E. – A.B. (Haverford College), Ph.D. (California Institute of Technology), University Professor of Chemistry and Biochemistry, 1979, 1996.

Kong, Byung Whi – B.S. (Korea University), M.S., Ph.D. (University of Minnesota), Assistant Professor of Poultry Science, 2006.

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Korth, Kenneth L. – B.S. (University of Nebraska), Ph.D. (North Carolina State University), Associate Professor of Plant Pathology, 1999, 2003.


Kral, Timothy A. – B.S. (John Carroll University), Ph.D. (University of Florida), Professor of Biological Sciences, 1981, 2008.


Kreider, David L. – B.S.A. (University of Arkansas), M.S. (Oklahoma State University), Ph.D. (University of Arkansas), Associate Professor of Animal Science, 1986, 1991.

Kring, Timothy J. – B.A. (Quinipiac College), M.S., Ph.D. (Texas A&M University), Professor of Entomology, 1985, 1994.

Kruse, Timothy A. – B.S. (Purdue University), M.B.A. (University of Missouri), Ph.D. (Purdue University), Assistant Professor of Finance, 2001.

Kuenzel, Wayne – B.S., M.S. (Bucknell University), Ph.D. (University of Georgia), Professor of Poultry Science, 1999.

Kulczak, Deborah E. – B.A., M.L.S. (Kent State University), Associate Professor and Associate Librarian, 1988, 2000.

Kurtz, David – B.A. (Davis and Elkins College), M.B.A., Ph.D. (University of Arkansas), Distinguished Professor of Marketing and Logistics and R.A. and Vivian Young Chair, 1988, 2005.


Kwon, Young Min – B.S., M.S. (Seoul National University), Ph.D. (Texas A&M University), Assistant Professor of Poultry Science, 2002.


Lacy, Claudia H. – B.S., M.S. (University of Oklahoma), Ph.D. (University of Texas, Austin), Professor of Physics, 1980, 1999.


Lamar, Brian – B.S. (Ferris State College), Captain (U.S. Army), Assistant Professor of Military Science, 1991.

Lamphear, Billy D. – B.A. (Northeastern Oklahoma State University), M.S. (Kennedy-Western University), Visiting Assistant Professor of Operations Management, 2002.


Landman, Michael – B.A. (Binghamton University), M.F.A. (Columbia University), Assistant Professor of Drama, 2004.

Langager, Graeme – B.M. (Capilano College, British Columbia), M.M. (California State University, Long Beach), D.M.A. (University of Cincinnati), Assistant Professor of Music, 2003, 2005.

Langsner, Steve – B.S. (Springfield College), M.S. (University of Baltimore), Re.D. (Indiana University), Associate Professor of Recreation, 1989, 1995.

Lanzani, Lorelana – B.S. (University of Rome II), Ph.D. (Purdue University), Professor of Mathematical Sciences, 1997, 2008.


Lawson, Glenda – A.D.N. (Mississippi University for Women), B.S.N., C.N.S., M.S.N. (University of Texas Medical Branch), Ph.D. (Texas Woman's University), Associate Professor of Nursing, 2000.

Lee, Fleet N. – B.S.A., M.S. (University of Arkansas), Ph.D. (Louisiana State University), Professor of Plant Pathology, 1968, 1986.

Lee, Richard N. – B.A. (Luther College), Ph.D. (Stanford University), Associate Professor of Philosophy, 1982, 1988.

Lee, Wayne Y. – B.S.M.E. (De La Salle College, Philippines), M.B.A. (Santa Clara University), Ph.D. (University of California, Los Angeles), Professor of Finance, the Alice L. Walton Chair in Finance, and the Garrison Chair in Finance, 1998.

Lee, Wookwon – B.S. (Inha University, Korea), M.S., Ph.D. (George Washington University), Assistant Professor of Electrical Engineering, 2000.


Lehmann, Michael – Diploma in Biology, Ph.D. (Philipps University of Marburg, Germany), Associate Professor of Biological Sciences, 2002.


Levine, Daniel – B.A. (University of Minnesota), Ph.D. (University of Cincinnati), Professor of Foreign Languages (Classics), 1980, 1998.

Li, Jiali – B.S. (Hei Long Jiang University), M.S. (University of Science & Technology of China), M.S., Ph.D. (City University of New York), Assistant Professor Physics, 2002.

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Lim, Sung M. – B.S., M.S. (Seoul National University), M.S. (Mississippi State University), Ph.D. (Michigan State University), Professor of Plant Pathology, 1991.

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Limp, W. Fredrick – B.A., M.A., Ph.D. (Indiana University), Leica Geosystems Chair and University Professor of Anthropology, Geosciences and Environmental Dynamics, 1979, 2002.

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Loewer, Otto J. – B.S., M.S. (Louisiana State University), M.S. (Michigan State University), Ph.D. (Purdue University), Professor of Biological and Agricultural Engineering, 1985-1992, 1996.

Loftin, Kelly M. – B.S. (Arkansas Tech), M.S. (University of Arkansas), Ph.D. (New Mexico State University), Assistant Professor of Entomology, 2002.

Lohr, Jeffrey M. – B.S. (University of Wisconsin), M.A., Ph.D. (University of Hawaii), Professor of Psychology, 1975, 1992.

Longer, David E. – B.S. (Ball State University), M.S., Ph.D. (Purdue University), Professor of Crop, Soil, and Environmental Sciences, 1979, 1986, 2005.

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Lorenz, Gus M. – B.S.A., M.S., Ph.D. (University of Arkansas), Professor of Entomology, 1997.


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Luoni, Stephen D. – B.S.Arch. (Ohio State University), M.Arch. (Yale University), Professor of Architecture, 2003, 2006.

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Luttrell, Randall G. – B.S. (Texas A&M University), M.S., Ph.D. (University of Arkansas), Professor of Entomology, 1998.

Lyles, Ivory W. – B.S. (Alcorn State University), M.S. (Mississippi State University), Ph.D. (Ohio State University), Adjunct Professor of Agricultural and Extension Education, 2001.


Madison, Bernard L. – B.S. (Western Kentucky University), M.S., Ph.D. (University of Kentucky), Professor of Mathematical Sciences, 1979.


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Schneider, Mary J. Grinstead – B.S.Ed. (Central Missouri State College), M.A., Ph.D. (University of Missouri), Professor of Anthropology, 1969, 1982.

Schneider, Susan A. – B.A. (College of St. Catherine), J.D. (University of Minnesota), LL.M. (University of Arkansas), Professor of Law, 1998, 2006.


Schroeder, David A. – B.S. (Purdue University), Ph.D. (Arizona State University), Professor of Psychology, 1976, 1989.


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Scott, Allison – B.S.N., M.S.N. (University of Arkansas for Medical Sciences), Instructor of Nursing, 2006.


Scott, Robert C. – B.S., M.S. (Oklahoma State University), Ph.D. (Mississippi State University), Associate Professor of Crop, Soil, and Environmental Sciences, 2003.

Scott, Thad – B.S. (Howard Payne University), M.S. (Tarleton State University), Ph.D. (Baylor University), Assistant Professor of Crop, Soil and Environmental Sciences, 2008.

Smith, Bob – B.S. (St. John’s University, New York), M.S., Ph.D. (University of Michigan), Professor of Chemistry and Biochemistry, 2000.
Smith, Brent L. – B.A. (Quachita Baptist University), M.A., Ph.D. (Purdue University), Distinguished Professor of Sociology, 2008.
Smith, Carl A. – B.S. (University of Lancaster), M.A., Ph.D. (University of Sheffield), Assistant Professor of Landscape Architecture, 2007.
Smith, Kathleen R. – B.S. (The Ohio State University), M.S. (University of Arkansas), Instructor of Human Environmental Sciences, 1999.
Smith, Kenneth K. – B.S. (Stephen F. Austin State University), M.Ed. (Sam Houston State University), Ph.D. (Oklahoma State University), Professor of Crop, Soil, and Environmental Sciences, 1999.
Smith, Kimberly G. – B.S. (Tufts University), M.S. (University of Arkansas), Ph.D. (Utah State University), Professor of Biological Sciences, 1981, 1992.
Smith, Korydon H. – B.P.S., M.Arch. (State University of New York - Buffalo), Assistant Professor of Architecture, 2002.
Smith, Lindsley A. – B.A., M.A. (University of West Florida), J.D. (University of Arkansas), Research Assistant Professor of Communication, 2002.
Smith, Ronn – B.S., M.S. (Montana State University), Ph.D. (Washington State University), Assistant Professor of Marketing and Logistics, 2006.
Smith, Scott C. – B.S., M.S. (University of Missouri-Columbia), Ph.D. (University of Central Florida), Associate Professor of Electrical Engineering, 2007.
Smith, Tom E.C. – B.S.E., M.Ed. (University of Mississippi), Ed.D. (Texas Tech University), Professor in Curriculum and Instruction, 2002.
Smith-Blair, Nan – B.S.N. (Texas Christian University), M.S.N. (Northwestern University, Louisiana), Ph.D. (University of Kansas), Associate Professor in Nursing, 1993, 2007.

M.S. (University of Arkansas), Clinical Assistant Professor in Kinesiology, 1990, 2000.

Snow, Ned – B.A. (Brigham Young University), J.D. (Harvard Law School), Assistant Professor of Law, 2006.
Snyder, Tamara – B.S. (University of California - Los Angeles), M.S. (University of Arkansas), Lecturer of Physics, 2001, 2006.
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Spearoit, Douglas E. – B.S. (University of Michigan), M.S., Ph.D. (Georgia Institute of Technology), Assistant Professor of Mechanical Engineering, 2005.
Spices, Thomas O.II – B.S.Ch.E., M.S.Ch.E., Ph.D. (University of Arkansas), Professor of Chemical Engineering, 1984, 1996.
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Springer, Bethany L. – B.A. (Virginia Polytechnic Institute and State University), M.F.A. (University of Georgia), Assistant Professor of Art, 2006.

Srivastava, Vibha – B.S. (DEI University), M.S. (Govind Ballabh Pant University of Agriculture and Technology), Ph.D. (Jawaharlal Nehru University, New Delhi), Associate Professor of Plant Tissue Culture and Genetics, 2001, 2005.
Stapp, Robert – B.S.B.A. (Oklahoma City University), M.S., Ph.D. (Oklahoma State University), Clinical Associate Professor of Economics, 1995.
Starks, Tricia – B.A. (University of Missouri), M.A., Ph.D. (Ohio State University), Associate Professor of History, 2000, 2006.
Stassen, Robert E. – B.S. (University of Minnesota), M.B.A., Ph.D. (University of Nebraska), Associate Professor of Marketing and Logistics, 1989, 1995.
Stauss, Kim – B.S. (Stephen F. Austin State University), M.S.W. (California State University at Sacramento), Ph.D. (University of Utah), Assistant Professor of Social Work, 2006.
Steelman, C. Dayton – B.S., M.S., Ph.D. (Oklahoma State University), Professor of Entomology, 1983.
Stegman, Charles E. – B.A. (St. Mary’s College), M.A., Ph.D. (University of Missouri-Kansas City), Professor of Educational Foundations, 1995.
Steinkraus, Donald C. – B.A. (Cornell University), M.S. (University of Connecticut), Ph.D. (Cornell University), Professor of Entomology, 1989, 1999.
Stenken, Julie – B.S. (University of Akron), Ph.D. (University of Kansas), Professor of Chemistry and Biochemistry, 2007.
Stephen, Frederick M. – B.A. (San Jose State University), Ph.D. (University of California, Berkeley), University Professor of Entomology, 1974, 1992.
Stephenson, Daniel O. IV – B.S., M.S. (Auburn University), Ph.D. (University of Arkansas), Research Assistant Professor of Crop, Soil, and Environmental Sciences, 2005.
Stephenson, Steven – M.A., M.S. (Virginia Polytechnic Institute and State University), Research Professor of Biological Sciences, 2003.
Stewart, Gay B. – B.S. (University of Arizona), M.S., Ph.D. (University of Illinois - Urbana-Champaign), Associate Professor of Physics, 1994, 2000.
Stewart, James McDonald – B.S., Ph.D. (Oklahoma State University), Professor of Crop, Soil, and Environmental Sciences and Ben J. Altheimer Chair for Cotton Research and Development, 1986, 2005.
Stockell, Richard – B.S. (Northwest Missouri State University), M.A. (Kansas State University), Associate Professor of Journalism, 1980, 1986.
Stone, Patrick S. – B.A. (Coe College), M.F.A. (University of South Dakota), Assistant Professor of Drama, 2007.
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Stirling, Jeffrey S. – B.A. (Stanford University), Ph.D. (University of Colorado), Professor of Psychology, 1976, 1990.
Sublette, Kerry L. – B.S. (University of Arkansas), M.S. (University of Oklahoma), M.S.E., Ph.D. (University of Tulsa), Adjunct Professor of Chemical Engineering, 2006.
Studebaker, Glenn – B.S. (Missouri Southern University), M.S., Ph.D. (University of Arkansas), Assistant Professor of Entomology, 1993.


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Szakasits, Monica – B.A. (Sam Houston State University), J.D. (Baylor University), M.S.L.I.S. (University of Texas), Associate Librarian, Law, 2004.

Szalanski, Allen L. – B.S.A. (University of Manitoba), M.S. (Kansas State University), Ph.D. (University of Nebraska), Associate Professor of Entomology, 2001, 2006.

Tacker, Phil – B.S., M.S. (University of Arkansas), Research Associate Professor of Biological and Agricultural Engineering, 1995

Takigiku, Susan K. – B.A. (University of Colorado), M.S. (Miami University, Ohio), Ph.D. (Purdue University), Assistant Professor of Human Environmental Sciences, 2001.


Tarvin, Timothy R. – B.A. (Hendrix College), J.D. (University of Arkansas), Assistant Professor of Law, 1993, 2007.

Taylor, Clark B. – B.S. (Auburn University), M.A. (University of Oklahoma), M.M.A.S. (Air University, Maxwell AFB), Lieutenant Colonel (U.S. Army), Professor of Military Science, 2007

Tchakhalian, Jak – B.S., M.S., Ph.D. (University of British Columbia), Assistant Professor of Physics, 2002, 2006.

Teague, Tina G. – B.S., M.S. (University of Arkansas), Ph.D. (Texas A&M University), Adjunct Professor of Entomology, 1995.

Teague, William Ricky – B.B.A. (Memphis State University), M.S. (Webster University), Visiting Assistant Professor of Operations Management, 2002.

TeBeest, David O. – B.S. (Wisconsin State University), M.S., Ph.D. (University of Wisconsin), University Professor of Plant Pathology, 1975, 2003.

Teng, Fangzhen – B.S. (University of Science and Technology of China), Ph.D. (University of Maryland), Assistant Professor of Geosciences, 2008.

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Thoma, Gregory J. – B.S.Ch.E., M.S.Ch.E. (University of Arkansas), Ph.D. (Louisiana State University), Professor of Chemical Engineering, 1993, 2005.

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Thompson, Dale R. – B.S., M.S. (Mississippi State University), Ph.D. (North Carolina State University), Associate Professor of Computer Science and Computer Engineering, 2000, 2006.

Thompson, Lynne – B.S. (Kansas State University), M.S., Ph.D. (University of Minnesota), Adjunct Professor of Entomology, 1992.

Thompson, Timothy F. – B.M. (University of North Carolina, Chapel Hill), M.M. (University of Wisconsin), Professor of Music, 1979, 2002.

Thomsen, Michael R. – B.S., M.S. (Utah State University), Ph.D. (University of Minnesota), Associate Professor of Agricultural Economics and Agribusiness, 1998, 2004.

Tjani, Maria – B.S. (University of Ioannina, Greece), M.S. (Purdue University), Ph.D. (Michigan State University), Assistant Professor of Mathematical Sciences, 1996, 2008.

Ton, Gary M. – B.S. (University of Mississippi), M.S. (University of Arkansas), Visiting Assistant Professor of Operations Management, 2000.

Toner, Mary Ann – B.S., M.S. (University of Wyoming), Ph.D. (University of Oklahoma), Associate Professor of Communication Disorders, 1990, 1996.


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Tscheplikov, Nick – B.S., M.S. (Henderson State University), Ed.S. (University of Arkansas), Adjunct Instructor of Curriculum and Instruction, 2007.

Tucker, Janet G. – A.B., M.A., Ph.D. (Indiana University), Professor of Foreign Languages (Russian), 1990, 2002.

Tucker, Terrance T. – B.A. (Louisiana State University), M.A., Ph.D. (University of Kentucky), Assistant Professor of English, 2006.


Tullis, Jason – B.S. (Brigham Young University), M.S., Ph.D. (University of South Carolina), Assistant Professor of Geography, 2004.

Tung, Chao-Hung S. – B.S.M.E. (National Taiwan University), M.S.M.E., Ph.D. (University of Houston), Associate Professor of Mechanical Engineering, 2000, 2005.


Turner, Lori W. – B.S. (Florida State University), M.S. (Florida International University), M.S. (Florida State University), Ph.D. (University of Alabama), Associate Professor of Health Science, 1997, 2002.


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VanDevender, Karl – B.S., M.S. (Mississippi State University), Ph.D. (University of Arkansas), Professor of Biological and Agricultural Engineering, 1995, 2004.

Vann, Stephen R. – B.S., M.S. (Mississippi State University), Ph.D. (Texas A&M University), Assistant Professor of Plant Pathology, 2002, 2003.

Varadan, Vasundara – B.Sc., M.Sc. (University of Kerala, Cochin, India), M.S., Ph.D (University of Illinois), Distinguished Professor of Electrical Engineering, 2005.


Villalobos, Sergio – B.A. (Universidad ARCIS-Chile), M.A., Ph.D. (University of Pittsburgh), Assistant Professor of Foreign Languages, 2005.

Viswaneth, Vinkatesh – B.E. (Bharathiar University, India), Ph.D. (University of Minnesota), Professor and the George and Bayce Billingsley Endowed Chair in Information Systems, 2004.

Vitale, Davide – Diploma in Architecture (University of Rome), M.Arch. (Harvard Graduate School of Design), Professor of Architecture, 1985, 1997.

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Walker, James M. – B.S., M.S. (Louisiana Polytechnic Institute), Ph.D. (University of Colorado), Professor of Biological Sciences, 1965, 1976.

Walker, Mary A. – B.A. (University of Arkansas), M.L.S. (University of North Texas), Assistant Professor and Assistant Librarian, 2001.

Wall, Jerry D. – B. of Arch.Engr. (Oklahoma State University), S.M. (Massachusetts Institute of Technology), Ph.D. (University of Arkansas), Professor of Architecture, 1973, 1979.


Waller, Matthew – B.S. (University of Missouri – Columbia), M.S., Ph.D. (Pennsylvania State University), Professor of Marketing and Logistics and the Garrison Endowed Chair in Supply Chain Management, 2002, 2006.

Wang, Gangqiang – M.S. (Chongqing University), Ph.D. (Tsing Rue University), Assistant Professor of Electrical Engineering, 2001


Wang, Ya-Jane – B.S. (National Taiwan University), M.S. (University of Minnesota-Twin Cities), Ph.D. (Iowa State University), Associate Professor of Food Science, 1999, 2004.

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Warnock, Mary M. – B.A. (Texas Christian University), M.S. (Texas Woman’s University), Professor of Human Environmental Sciences, 1976, 1996.


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Watson, Douglas – B.S. (Gallaudet College), M.S. (Southern Illinois University), Ph.D. (Florida State University), Professor of Rehabilitation Education, 1982, 1984.


Way, Kelly A. – B.S., M.S., Ph.D. (Oklahoma State University), Assistant Professor of Human Environmental Sciences, 2006.

Webb, Jennifer D. – B.S., M.S. (University of Tennessee), Ph.D. (Oklahoma State University), Associate Professor of Interior Design, 1999, 2005.


West, Charles P. – B.S., M.S. (University of Minnesota), Ph.D. (Iowa State University), Professor of Crop, Soil, and Environmental Sciences, 1984, 1995.

West, Elliott – B.J. (University of Texas, Austin), M.A., Ph.D. (University of Colorado), Distinguished Professor of History, 1979, 2000.

West, Leon – B.S. (University of Arkansas), Ph.D. (Florida State University), PE., Professor of Mechanical Engineering, 1982, 1990.

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White, Donald D. Jr. – B.S.B.A., M.A. (Central Missouri State College), Ph.D. (University of Nebraska), University Professor of Management, 1971, 2006.

White, John A. – B.S.I.E. (University of Arkansas), M.S.I.E. (Virginia Polytechnic Institute), Ph.D. (The Ohio State University), Chancellor and Distinguished Professor of Industrial Engineering, 1997.

Wicks, Jan LeBlanc – B.A. (University of Southwest Louisiana), M.A., Ph.D. (Michigan State University), Professor of Journalism, 1994, 2006.


Wideman, Robert F. – B.A. (University of Delaware), M.S., Ph.D. (University of Connecticut), Professor of Poultry Science, 1993.

Widick, J. Darel – B.S.A. (University of Tennessee), M.S., Ph.D. (University of Arkansas), Research Assistant Professor of Agronomy, 1982.

Wiedemann, Robert – B.S., Ph.D. (Purdue University), Professor of Entomology, 2005.

Wilke, Stephen B. – B.S. (Middle Tennessee State University), J.D., M.P.A. (University of Memphis), Visiting Assistant Professor of Operations Management, 1996.

Wilkins, Charles L. – B.S. (Chapman College), Ph.D. (University of Oregon), Distinguished Professor of Chemistry and Biochemistry, 1998.

Williams, Brent – B.A. (Austin College), M.S. (University of Texas Southwestern Medical Center - Dallas), Ph.D. (University of Illinois at Urbana-Champaign), Assistant Professor of Rehabilitation Education, 2002.


Williams, Nathan L. – B.A. (Pennsylvania State University), M.A., Ph.D. (George Mason University), Associate Professor of Psychology, 2002, 2008.

Williams, Patrick G. – B.A. (University of Texas), M.A., Ph.D. (Columbia University), Associate Professor of History, 2000, 2006.

Williams, Rodney – B.S.C.E., M.S.C.E., Ph.D. (University of Arkansas), Adjunct Assistant Professor of Civil Engineering, 2000.

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Wilson, C. E. Jr. – B.S.A. (Arkansas State University), M.S., Ph.D. (University of Arkansas), Professor of Crop, Soil, and Environmental Sciences, 1998, 2003.


Wimberly, Jim – B.S., M.S. (Louisiana State University), Adjunct Assistant Professor of Biological and Agricultural Engineering, 1999.

Wolf, Duane C. – B.S., M.S. (University of Missouri-Columbia), Ph.D. (University of California, Riverside), University Professor of Crop, Soil, and Environmental Sciences, 1979, 1996.

Wolf, Patrick J. – B.A. (University of St. Thomas), A.M., Ph.D. (Harvard University), Professor and Endowed Chair in School Choice, 2006.


Worden, Steven K. – B.S., M.A. (Portland State University), Ph.D. (University of Texas, Austin), Associate Professor of Sociology, 1987, 1993.

Worrell, Dan – B.S., M.S., Ph.D. (Louisiana State University), Professor of Management and Sam M. Walton Leadership Chair, 2005.

Worrell, Diane Featherston – B.S., M.S.W., M.L.S. (Louisiana State University), Ph.D. (Texas Woman's University), Adjunct Assistant Professor and Adjunct Assistant Librarian, 2005.

Worthen, Diana Gonzales – B.S. (University of Houston), M.A.T. (University of
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Xiao, Min – B.S. (Nanjing University), Ph.D. (University of Texas), Distinguished Professor of Physics, 1990, 2004.

Xie, Jining – B.E. (Tsinghu University), Ph.D., (Pennsylvania State University), Assistant Professor of Electrical Engineering, 2005.

Yang, Song – B.A. (Branch College of Nankai, China), M.A. (Nankai University, China), Ph.D. (University of Minnesota), Associate Professor of Sociology, 2002, 2008.

Yazwinski, Thomas Anthony – B.S. (University of Vermont), M.S. (University of Maine), Ph.D. (North Carolina State University), University Professor of Animal Science, 1977, 2004; Adjunct Professor of Poultry Science, 2003.

Ye, Kaiming – B.S., M.S., Ph.D. (East China University of Science and Technology), Assistant Professor of Biological and Agricultural Engineering, 2003.

Yeager, Milton P. Jr. – B.S. (University of Southern Mississippi), M.S. (University of Arkansas), Visiting Assistant Professor of Operations Management, 1989.

Yeager, Tim – M.A., Ph.D. (Washington University), Associate Professor and Arkansas Bankers Association Chair in Banking, 2006.


Yoes, Janice – B.M. (Drake University), M.M. (University of Tulsa), Associate Professor of Music, 1985, 1991.

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Young, Juana R. – B.A. (Texas Tech University), M.L.S. (North Texas State University), Professor and Librarian, 1972, 1984.

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Zajicek, Anna M. – B.S., M.S. (University of Silesia, Poland), Ph.D. (Virginia Polytechnic Institute and State University), Professor of Sociology, 1994, 2006.

Zeng, Ka – B.A. (Foreign Affairs College, Beijing), M.A. (Virginia Polytechnic Institute and State University), Ph.D. (University of Virginia), Associate Professor of Political Science, 2000, 2006.

Zhengrong, Ryan Tian – B.S. (Fudan University, Shanghai), Ph.D. (University of Connecticut), Assistant Professor of Chemistry and Biochemistry, 2004.

Ziegler, Joseph A. – B.A. (St. Mary's College), Ph.D. (University of Notre Dame), Professor of Economics, 1973, 1980.


Zou, Min – B.S.A.E., M.S.A.E. (Northwestern Polytechnical University), M.S.M.E., Ph.D. (Georgia Institute of Technology), Assistant Professor of Mechanical Engineering, 2003.

Zou, Tim Jiping – B.A. (Shandong University), M.S., Ph.D. (University of Illinois, Urbana-Champaign), Associate Professor and Associate Librarian, 2004.

Glossary

Academic Warning. A status resulting from unsatisfactory grades.

Act 1052/467. Section 21 of Arkansas Act 467 of 1989 specifies that all first-time entering freshmen who are enrolled in a bachelor's degree program will be placed in either college-level credit courses in English and mathematics or developmental courses in English composition, reading, and mathematics on the basis of their scores on specified tests. See Orientation and Registration.

Advance Registration. A period of time scheduled during a regular (fall or spring) semester that allows currently enrolled students to register for the next regular semester. In addition, advance registration for the summer sessions is scheduled during the spring semester.

Audit. To take a course without credit.

Adviser. A faculty member assigned to a student to advise that student on academic matters that include degree requirements and selection of courses.

Class Schedule. List of courses and sections for a specific semester, including names of instructors; day, hour, and place of class meetings; and detailed registration procedures. Commonly referred to as the "Racing Form."

College or School. One of eight major divisions within the University that offers specialized curricula.

Concentration. A sub-set of a major's requirements leading to a graduate or bachelor's degree.

Consent. A prerequisite that requires the student to obtain approval from the instructor or the department before he or she will be allowed to register for the course.

Corequisite. A course that must be taken at the same time as the course described.

Course. A unit of academic instruction.

Course Deficiencies. Lacking required units of study in high school. See Admission chapter.

Course Load. The number of semester credit hours a student may schedule in a given term.

Cumulative Grade-Point Average. An average computed by dividing the total number of grade points earned by the total number of credit hours attempted in all courses for which grades (rather than marks) are given.

Curriculum. A program of courses comprising the formal requirements for a degree in a particular field of study.

Degree Program. A complete course of study inclusive of all University, college, and departmental requirements.

Department. Division of faculty or instruction within a college, such as Department of Accounting within the Sam M. Walton College of Business Administration.

Drop/Add. Official dropping or adding of courses for which students are registered during specified times as published in the schedule of classes.

Eight-Semester Degree Completion Program. Most majors offered by the University of Arkansas can be completed in eight semesters, and the university provides plans that show students which classes to take each semester in order to finish in eight semesters. A few majors require a summer internship or fieldwork, and may therefore require nine semesters. Likewise, professional programs such as architecture usually take ten semesters.

Elective. A course not required but one that a student chooses to take.

Equivalent. A course allowed in place of a similar course in the same academic discipline. May require approval by an academic dean.

Fees. Charges, additional to tuition, which cover specific University services, programs, facilities, activities and/or events. See the Fee and Cost Estimates chapter of this catalog for a full list of fees.

Grade Points. Points per semester hour assigned to a grade (not a mark), indicating numerical value of the grade. The grade-point average indicates overall performance and is computed by dividing the total number of grade points earned by the number of semester hours attempted.

Grade Sanction(s). A penalty for academic dishonesty. Grade sanctions may consist of either a grade of zero or a failing grade on part or all of a submitted assignment or examination or the lowering of a course grade, or a failing grade.

Hazing. Any activity that is required of an individual that may cause mental or physical stress and/or embarrassment when in the process of joining or belonging to any organization.

Laboratory. Descriptive of work other than class work, such as experimentation and practical application.

Lecture. A class session in which an instructor speaks on a specific topic.

Major. A main or primary discipline in which a student completes a designated number of courses and hours of credit.

Minor. A second discipline or area of study in which a student concentrates in addition to the student's major; each approved minor requires a minimum of 15 hours in a designated discipline.

Noncredit Course. A course for which no credit is given. (Some credit courses will not count toward degrees.)

Overload. A course load of more semester hours than a student is normally permitted to schedule in a given period.

Prerequisite. A course or requirement that must be completed before the term when the described course is taken.

Registration. Enrollment at the beginning or prior to the beginning of a semester, including selection of classes and payment of fees and tuition.
Registration Fee. A fee paid by all students who register for classes.
Sanction(s). The penalty for noncompliance to a policy. Usually a
response that will redirect the individual or group’s inappropriate be-
havior, encourage responsible judgment and ethical reasoning, protect
the community’s property and rights, and affirm the integrity of the
institution’s conduct standards.
Section. A division of a course for instruction. A course may be taught
in one or more sections or classes or at different times, depending on
enrollment in the course.
Semester Credit Hour. Unit of measure of college work. One semester
credit hour is normally equivalent to one hour of class work or from
two to six hours of laboratory work per week for a semester.
Student Number. A number given to each student as a permanent
identification number for use at the University.
Summer Sessions. Periods of time during the summer when course
work is offered. (See the calendar or the summer class schedule for
specific times and dates.)
Suspension. A status in which students are not permitted to register for
courses for a specified time period.
Syllabus. An outline or summary of the main points of a course of study,
lecture, or text.
Transcript. A copy of a student’s academic record, mainly intended for
communicating information from one institution to another.
Tuition. The charge for University enrollment and registration, calcu-
lated per credit hour each semester. Tuition rates may vary depending
on a student’s resident status, undergraduate or graduate standing, and
college affiliation. Tuition does not include cost of room and board.
Additional charges will apply depending on student status (see entry
for Fees).
Undeclared Major. Designation indicating students who have not
selected a major.
Undergraduate Study. Work taken toward earning an associate or a
baccalaureate degree.
Withdrawal. Official withdrawal from all courses during a semester at
the University.
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How to Read a Course Description

Courses listed in this section describe all courses approved for offering by the University of Arkansas. The courses are listed alphabetically by code. The word “course” refers to a unit of academic instruction. While the word “class” refers to a course scheduled during a semester or summer session with a certain number of prescribed meetings each week. Successful completion of a class usually earns a specified number of semester hours of credit toward a degree. The Schedule of Classes lists classes available in a specific semester, along with the instructor of record, time and place the class is being held.
Course Descriptions

Course Description Explanations

A course listing comprises the following elements, in order:

Course Prefix: This alpha descriptor is the first identifying part of a course. This four-digit code represents the course prefix name. Usually the course prefix will be the same as the department offering the course, occasionally the prefix is one of many different courses offered in a single department. For example, ARAB refers to Arabic courses, which are offered through the department of foreign languages.

Course Number: Each course is designated by a four-digit number. The first digit identifies the level of the course: 1, freshman level; 2, sophomore level; 3 and 4, junior-senior level; 5, 6, and 7, graduate level. Any exceptions to this practice are stated in the course descriptions.

Course Title: The title of the course is printed in bold letters.

Course Semester Offering: Also inside the parentheses following the course title are letters indicating which semester the course is normally offered. Cross-check with the Schedule of Classes to determine if a course is being offered. Courses marked (Sp) will be offered in the spring, courses marked (Fa) will be offered in the fall, courses marked (Su) will be offered in the summer, and courses marked (Irregular) will be offered irregularly.

Course Description: A brief description of the course content and its major emphasis are stated. If the course is cross-listed (also offered under another course number) a “Same As” statement will be included in the description. If the course is eligible to be repeated for degree credit more than once, a statement will appear to indicate the total hours or times a course may be repeated. If no repeated statement is listed, the course may be used for degree credit only once.

Prerequisites: Requisites are requirements that must be fulfilled either before a course may be taken or at the same time a course is taken. Prerequisites are courses or requirements that must be completed prior to enrolling in a certain course. Courses may have prerequisites from inside and outside the department. It is the student’s responsibility to make sure he/she has completed the proper prerequisites before enrolling in any class. Courses listed as corequisites are to be taken in the same semester as the course desired.

Corequisites: Corequisites are courses for which they do not have the necessary prerequisites. Students who are in doubt concerning their eligibility for entry into specific courses should consult their academic adviser. Students may be dropped from courses for which they do not have the necessary prerequisites.

ACCT3533 Accounting Technology (Sp, Fa) This course provides an overview of accounting information systems and illustrates the importance of technology to accountants. Students are exposed to a variety of information technologies including manual, file-oriented, and database systems. The relative advantages and disadvantages of each type of system are highlighted and discussed. Prerequisite: ACCT 3013 with a grade of "C" or better.

ACCT3613 Managerial Uses of Accounting Information (Sp, Fa) Use of accounting information for managerial decisions in a changing, global environment. Identifying the specific information needs of managerial decisions, focusing on the role of both financial and non-financial accounting information within the context of a continually changing information system technology. Covers business as well as non-profit and governmental organizations. This course includes spreadsheet analysis. Prerequisite: WCOB 1023.

ACCT3723 Intermediate Accounting I (Sp, Fa) This course is designed to study the theoretical basis for financial accounting concepts and principles related to financial reporting. This course emphasizes research technical accounting pronouncements for application to external financial reporting issues. Prerequisite: ACCT 3013 with a grade of "C" or better.

ACCT3843 Fundamentals of Taxation (Sp, Fa) Overview of basic income tax principles and tax planning techniques. Overview of the income tax treatment of business entities. Focus on the income tax treatment of individuals (with emphasis on the Federal Income Tax). Prerequisite: ACCT 3013 with a grade of "C" or better.

Accounting (ACCT)

ACCT3013 Accounting View of Economic Events (Sp, Fa) This course examines the relationship between economic events and the accounting view of those events. It explores the information that is captured by various accounting models and information that is ignored. The course emphasizes business processes, double entry accounting, and computer-based accounting information systems. Prerequisite: WCOB 1023.

ACCT4003H Honors Accounting Colloquium (Irregular) Explores events, concepts and/or new developments in the field of accounting. Prerequisite: Senior standing.

ACCT410V Special Topics in Accounting (Irregular) (1-3) Explore current events, concepts and new developments relevant to Accounting not available in other courses. Prerequisite: ACCT 3013 with a grade of "C" or better. May be repeated.

ACCT4573 Product, Project and Service Costing (Sp) Cost systems with emphasis on information generation for cost management of product and service lines. Includes coverage of performance costing, budgeting, cost accumulation, and linking the impact of retail/supply chain decisions to financial and nonfinancial functions. Prerequisite: Senior standing. WCOB 3016 and costing for cost management and performance of products, projects and services. May be repeated.

ACCT5223 Accounting for Supply Chain & Retail Operations (Fa) Highlights the role played by accounting information in managing supply chains and retail operations. Provides tools for managing cost flows, including activity-based costing, retail accounting, and operational budgeting. Focuses on improving decision making processes, and linking the impact of retail/supply chain decisions to financial statements and shareholder value. Prerequisite: MBAD 511V with a grade of "C" or better.

ACCT5413 Accounting Information Systems for Restructurings (Fa) Integrated course which examines the financial report- ing, managerial, systems and auditing aspects of major corporate restructurings arising from events such as mergers, acquisitions, spinoffs, reorganizations and downsizeing. Prerequisite: ACCT 4753 with a grade of "C" or better.

ACCT5443 Fraud Prevention and Detection (Fa) An examination of various aspects of fraud prevention and detection, including the sociology of fraud, elements of fraud, types of fraud involving accounting information, costs of fraud, usable controls to prevent fraud, and methods of fraud detection. Prerequisite: MBAD 512V with a grade of "C" or better.

ACCT5443 Asset Management (Sp) Managing assets to achieve corporate strategy. Includes issues such as strategy formulation, acquisition process, internal controls, system requirements, accounting measurements, inventory models, re-engineering, capital budgeting, tax

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issues, and discussion of current business events that have ethical implications. Prerequisite: MBAD 512V with a grade of “C” or better.

ACCT5463 Financial Statement Analysis (Sp) This course is designed to study financial statements and their related footnotes; tools and procedures common to financial information; and financial relationships among business transactions, environmental forces (political, economic, and social), and reported financial information; and how financial statement information can help solve certain business problems. Prerequisite: ACCT 3723 with a grade of "C" or better.

ACCT549V Special Topics in Accounting (Sp, Fa) (1-3) Seminar in current topics not covered in other courses. Students may enroll in one or more units. May be repeated. May be repeated for up to 3 hours of degree credit.

ACCT5883 Individual Tax Planning (Sp) In-depth coverage of the tax treatment of corporations including advanced tax issues. Introduction to tax research including the organization and authority of tax law; accessing and using the tax law; and, applying tax law to taxpayer scenarios. Prerequisite: ACCT 3843 or equivalent with a grade of "C" or better.

ACCT5884 Individual Income Tax Planning (Fa) In-depth coverage of the tax treatment of corporations including advanced tax issues. Overview of the income tax treatment of estates and trusts. Overview of the essentials of estate and gift taxation. Prerequisite: MBAD 512V or ACCT 3843 each with a grade of "C" or better.

ACCT5953 Assurance Services (Fa) The expression of opinions about the financial statements and other forms of information for decision makers. Includes risk assessment, evidence gathering, and reporting. Prerequisite: ACCT 4753 with a grade of "C" or better.

ACCT6013 Graduate Colloquium (Irregular) Presentation and critique of research papers and proposals. May be repeated for up to 9 hours of degree credit.

ACCT6033 Accounting Research Seminar I (Irregular) First course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects recent developments in the literature and specific interests of participants. Examples of potential topics include research methods in accounting, management accounting, and behavioral accounting.

ACCT6133 Accounting Research Seminar II (Irregular) Second course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects recent developments in the literature and specific interests of participants. Examples of potential topics include research methods in accounting, management accounting, and behavioral accounting. Prerequisite: ACCT 6033.

ACCT6233 Accounting Research Seminar III (Irregular) Third course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects recent developments in the literature and specific interests of participants. Examples of potential topics include research methods in accounting, financial accounting, managerial accounting, behavioral accounting, tax, audit, international accounting, and education. Prerequisite: ACCT 6033.

ACCT636V Special Problems in Accounting (Sp, Fa) (1-6) Special research project under supervision of a graduate faculty member.

ACCT6434 Advanced Accounting Research Seminar IV (Irregular) Fourth course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects recent developments in the literature and specific interests of participants. Examples of potential topics include research methods in accounting, financial accounting, managerial accounting, behavioral accounting, tax, audit, international accounting, and education. Prerequisite: ACCT 6033.

ACCT6633 Advanced Accounting Research Seminar V (Irregular) Fifth course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects recent developments in the literature and specific interests of participants. Examples of potential topics include research methods in accounting, financial accounting, managerial accounting, behavioral accounting, tax, audit, international accounting, and education. Prerequisite: ACCT 6033.

ACCT700V Doctoral Dissertation (Sp, Fa) (1-18) Prerequisite: candidacy.
Course Descriptions

including a study of the interrelationship between agriculture and other segments of the economy; and the dynamic forces in the economy which affect agriculture. Pre or Corequisite: MATH 1203.

AGEC2143 Agribusiness Financial Records (Fa) Principles of small business management accounting to allow students to gain a hands-on experience with financial record keeping for a business. Resulting financial statements are analyzed to determine opportunities for enhancing financial efficiency. Prerequisites: AGME 1103 and AGEC 1103.

AGEC2303 Introduction to Agribusiness (Sp) Introduction to agribusiness issues as they relate to the food processing, wholesale and retail sectors of the agricultural industry. Coverage of current agribusiness management issues and case studies is designed to help students evaluate business opportunities. Case studies serve to develop concepts of product distribution, design, promotion and pricing in the development of a marketing plan. Prerequisite: AGEC 1103 or ECON 2023.

AGEC2403 Quantitative Tools for Agribusiness (Sp) Introduction to quantitative methods used in agricultural economics and agribusiness with an emphasis on skills and techniques that will enhance the ability of students to perform in upper division coursework. Provides an overview of statistical and optimization methods used in research problems, economic theory, and applied decision making activities. Prerequisites: MATH 1203 or MATH 2043.

AGEC3303 Food and Agricultural Marketing (Fa) Surveys consumer trends in food markets and the marketing activities of the food and fiber system. Emphasizes marketing principles and functions, and considers how agribusiness and agricultural food products. Topics include applied consumer and price theory; marketing management; structure and performance of the food system; and current agricultural marketing topics. Prerequisites: AGEC 1103 or ECON 2023.

AGEC3313 Agribusiness Sales (Sp) Principles of professional sales and sales management techniques used in food and agricultural firms; develop a professional sales presentation; study current agribusiness industry professional sales persons and sales practices and techniques. Prerequisites: AGEC 1103 or AGEC 2103 or ECON 2023 or ECON 2143 or equivalent.

AGEC3403 Options Markets (Sp) Theory and mechanics of commodity futures and options markets including trading, margin, fees, etc. Price relationships between cash, futures and options. Fundamental and technical price analysis. Price risk management strategies for producers and users of agricultural commodity marketing plan. Speculative and hedging simulation exercises. Prerequisite: AGEC 1103 or ECON 2023.

AGEC3503 Farm Business Management (Fa) Application of economic principles for the profitable organization and operation of the farm business. Focuses upon agricultural production management decision-making tools: budgeting technique (e.g., cash flow), balance sheet and income statement, cash flow, investment analysis and risk management. Recommended: AGEC 1103 or (ECON 2023); AGEC 2143, and AGEC 9003.

AGEC3513 Principles of Environmental Economics (Sp) An introductory, issues-oriented course in the economics of the environment. The course will focus on what is involved in how society makes decisions about environmental quality. The environmental issues important to the State of Arkansas and the United States will be emphasized. Prerequisite: AGEC 1103 or ECON 2023. (Same as ENSC 3413)

AGEC3503 Agricultural Law I (Sp) Examination of those areas of law especially applicable to agriculture. Fundamentals of contract law, torts law, and property law will accompany discussion of major areas of agricultural law; acquisition and disposal of farmland; farm tenancies; rights and limitations in the use and ownership of farmland; water law; environmental protection; production of the productivity of agricultural land; and the law of sales and secured transactions in an agricultural context.

AGEC3523 Environmental and Natural Resources Law (Even years, Sp) Principles of environmental and natural resources law relevant to agriculture, food, and the environmental sciences; legal principles relating to regulation of water, land, air, animals, plants, soil, wildlife, and water rights. Principles of civil and criminal liabilities and other developing legal and regulatory issues relating to agriculture and natural resources.

AGEC400V Master’s Problems (Sp, Su, Fa) (1-6) Special studies and readings conducted under the direct supervision of staff members to satisfy the requirements of individual students. May be repeated for up to 6 hours of degree credit.

AGEC401V Internship in Agribusiness (Sp, Su, Fa) (1-6) A supervised practical work experience in an agricultural or agribusiness firm as a basis for orientational supervision having direct impact on agriculture in order to gain professional competence and insight to employment opportunities. Prerequisite: junior standing. May be repeated for up to 8 hours of credit.

AGEC402V Special Topics (Irregular) (1-3) Studies of selected topics in agricultural economics not available in other courses.

AGEC4113 Agricultural Prices and Forecasting (Sp) Price theory and techniques for predicting price behavior of general economy and price behavior of individual agricultural products will be analyzed. Provides practical in the application of price forecasts and statistics to agriculture price analysis. Lecture 2 hours, laboratory 2 hours per week.

Prerequisite: AGEC 1103 or (ECON 2023), AGEC 2403, (Introductory statistics AGST 4023 or STAT 2303 or WCOB 1033) and MATH 2033.

AGEC4143 Agricultural Finance (Fa) Methods and procedures whereby agricultural firms acquire and utilize funds required for their successful operation. Emphasis is placed upon role of finance and financial planning and consideration is given to an understanding of financial firms serving agriculture. AGEC 2143 or WCOB 1023 is recommended.

Prerequisite: AGEC (1103 or ECON 2023) and AGEC 2103 and MATH 1203 or MATH 2043.

AGEC4163 Agricultural and Rural Development (Irregular) Examination of agricultural and rural development issues in less developed countries. Alternative approaches to development, external influences, theories examined, and consideration given to the planning and implementation of development programs. Prerequisite: AGEC 1103 or (ECON 2023). (Same as RSOC 5163)

AGEC4303 Advanced Agricultural Marketing Management (Irregular) Marketing concepts will be developed and applied to the global food and fiber system. The course will use both commodity and product marketing principles and economic theory to analyze varying marketing situations. Case studies will be used to demonstrate the role that demand analysis and consumer behavior play in market management. Prerequisite: AGEC 2903 and AGEC 3303.

Prerequisite: AGEC 2903 or equivalent.

AGEC4323 Agribusiness Entrepreneurship (Sp) Agribusiness entrepreneurship is the process of bringing food and agricultural product into the market. Theory and practice of product development, new venture creation, and business development. Prerequisite: AGEC 1103 or ECON 2023 or equivalent.

AGEC4373 Advanced Price Risk Management (Sp) Use of futures markets as risk shifting institutions. Students design and implement hedging and cross hedging strategies for grain farmers, country elevators, soybean crushers, poultry firms, etc. Spreadsheets and statistical tools (regression analysis, mathematical programs) used in economic analysis in agriculture. Emphasis is placed on computer applications with conceptual linkage to economic theory. Prerequisite: Graduate standing.

AGEC5133 Agricultural Marketing Theory (Sp) Survey of the structure of agricultural product and factor markets including a critique of theoretical analyses of industry structure, conduct and performance; and a review of market structure research in agricultural industries. Prerequisite: AGEC 3303 or equivalent.

AGEC5404 Quantitative Methods for Agribusiness (Fa) Application of quantitative techniques used to support managerial decision-making and resource allocation in agricultural firms. Provides exposure to mathematical and statistical tools (regression analysis, mathematical programming, simulation) used in economic analysis in agriculture. Emphasis is placed on computer applications with conceptual linkage to economic theory. Prerequisite: Graduate standing.

AGEC5403 Agricultural Strategy (Sp) Addresses problems of strategy formulation in agribusiness emphasizing current problems and cases in agriculture. Surveys modern and classic perspectives on strategy with applications to agribusiness. Examines the development of firm level strategies within the structure and competitive environment of agricultural firms and industries. Prerequisite: Graduate standing.

AGEC5613 Economics I (Fa) Use of economic theory and statistical methods to estimate economic models. The single equation model is explained emphasizing multicollinearity, autocorrelation, heteroskedasticity, binary variables and distributed lags and model specification. Prerequisite: MATH 2043 and knowledge of matrix methods, (which may be acquired as a corequisite), and (AGEC 1103 or ECON 2013) and (AGEC 2403 or AGST 4023 or STAT 2303 or WCOB 1033). (Same as ECON 5613)

AGEC5713 Food Safety Law (Irregular) This course provides students with an introduction to food law and policy. History of food regulation, the application of federal food law and regulatory agencies, government inspection and enforcement powers, food safety standards, food labeling, food advertising and product liability. Web-based course.

AGEC5408 Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

AGEC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.
Agricultural Education (AGED)

AGED1001 Orientation to Agricultural and Extension Education (Fa) Continuation of AFSL 1011, Freshman Orientation, with attention given to sharing of possible solutions to individual problems. Exploration of anticipated college experiences for AFSL students. Majors as well as post-graduation opportunities. Student and faculty interaction is stressed. The class meets during the last half of the fall semester once a week. The class also meets 1 or 2 evenings for up to two hours each time.

AGED102V Special Topics for Freshmen (Irregular) (1-2) Topics not covered in other courses or in-depth study of a particular topic. Used primarily with the program for Beginning Honors Program. May be repeated for up to 2 hours of degree credit.

AGED1031 Introduction to Early Field Experience (Fa) A thirty hour field experience designed to give prospective agricultural education teachers an opportunity to observe and participate in a variety of school settings. Corequisite: CIED 1002.

AGED1122 Agricultural Youth Organizations (Fa) Survey course of agricultural youth organizations including 4-H, FFA, Grange, and others pertaining to membership, awards programs, benefits, and special recognition programs. Lecture and discussion. Two periods per week.

AGED1612 Agricultural Education (Fa) Methods and techniques in teaching agriculture at the secondary level. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Pre or Corequisite: CIED 1002 or CIED 1010 or CIED 1011 or CIED 1012.

AGED3141L Ag Communications Lab (Sp, Fa) Corequisite: AGED 3142.

AGED3142 Agri Communications (Sp, Fa) An overview of Agri Communications in the agricultural, food and life sciences, including newsletter design, slide presentations, newswriting, electronic communication and web publishing. Corequisite: AGED 3141L.

AGED3153 Leadership Development in Agriculture (Sp) Identification of styles and roles of leadership; development of leadership techniques and skills required in working with organizations; dynamics of group action; methods and techniques for leadership for boards, committees, governmental bodies, and review of societal and political processes. Prerequisite: Graduate standing.

AGED5053 Philosophy of Agricultural and Extension Education (Sp) An examination and analysis of social and economic events leading to the establishment and maintenance of federations, county, and local agricultural education programs. Lecture 3 hours per week. Prerequisite: Graduate standing.

AGED5074 Program Management Practicum (Irregular) Ag CDE students develop skills in project management and present a research project to a college level audience. Prerequisite: Graduate standing.

AGED520V Special Topics in Agriculture and Extension Education (Irregular) (1-4) Topics not covered in other courses or a more intensive study of specific topics in agriculture education. Prerequisite: Graduate standing.

AGED5463 Research Methodology in the Social Sciences (Sp) Logical structure and the method of scientific research. Selection, observation, measurement, analytic method, interpretation, verification, presentation of results. Applications to research in economic or sociological problems of agriculture and human environmental sciences. Prerequisite: Graduate standing. (Same as AGEC 5013, HESC 5463, RSOC 5463)

AGED5473 Interpreting Social Data in Agriculture (Fa) The development of competencies in analyzing, interpreting, and representing statistical data and research in agricultural education and the development of competencies in analyzing, interpreting, and representing statistical data and research in agricultural education. Prerequisite: AGST 4023 (or EDFD 5393) and AGED 5463 (or RSOC 5463).

AGED550V College Teaching in Agriculture and Extension Education (Fa) The development of competencies in analyzing, interpreting, and representing statistical data and research in agricultural education. Prerequisite: AGST 4023 (or EDFD 5393) and AGED 5463 (or RSOC 5463).

AGED610V Special Problems (Sp, Su, Fa) (1-6) Individual research or study for advanced undergraduates in the field of agricultural education. Prerequisite: Graduate standing.

AGED620V Special Problems in Agricultural and Extension Education (Sp, Su, Fa) (1-6) Individual research or study for advanced undergraduates in the field of agricultural education. Prerequisite: Graduate standing.

AGED6401V Special Topics (Irregular) (1-3) Studies of selected topics in agricultural education not covered in other courses. (Same as AGED 401V) May be repeated for up to 4 hours of degree credit.

AGED4143 Electronic Communications in Agriculture (Even years, Sp) Theory and practice of planning, editing, designing, and producing electronic publications commonly used in agriculture, extension and related industries.

AGED4632 Teaching Diverse Populations in Agricultural and Extension Education (Sp) This course is designed to provide pre-service teachers of agriculture with an understanding of teaching diverse populations as applied to problems of practice in agricultural and extension education.

AGED475V Internship in Agri Educ (Sp, Su, Fa) (1-6) Scheduled practical field experiences under the supervision of a professional practitioner in off-campus secondary school systems. Emphasis includes classroom preparation, teaching, and student evaluation. Prerequisite: Admission into Clinical Practice. May be repeated for up to 6 hours of degree credit.

AGED4843 Methods in Agricultural Laboratories (Sp) Methods and management techniques in all types of agricultural laboratories that may be in a secondary agricultural science program. Emphasis on management of student and facilities, equipment, and materials. Lecture 2 hours, laboratory 4 hours per week. Prerequisite: AGME 2123.

AGED5001 Seminar (Sp) Presentations and discussion of graduate student research as well as review of current literature and topics of current interest by students and faculty. All graduate students will make at least one formal presentation.

AGED5013 Advanced Methods in Agricultural Mechanics (Fa) Emphasis on shop organization and management, courses of study, unit shop instruction, and development of skills in agricultural mechanics.

AGED5031 Ethics in Agricultural and Extension Education (Fa) A study of ethics as applied to problems of professional practice. The focus will be on case studies.

AGED5033 Developing Leadership in Agricultural Organizations (Fa) Organizational concepts of leadership; administrative styles and structures; leadership for boards, committees, governmental bodies, and review of societal and political processes. Prerequisite: Graduate standing.

AGED5053 Philosophy of Agricultural and Extension Education (Sp) An examination and analysis of social and economic events leading to the establishment and maintenance of federations, county, and local agricultural education programs. Lecture 3 hours per week. Prerequisite: Graduate standing.

AGED5074 Program Management Practicum (Irregular) Ag CDE students develop skills in project management and present a research project to a college level audience. Prerequisite: Graduate standing.

AGED520V Special Topics in Agriculture and Extension Education (Irregular) (1-4) Topics not covered in other courses or a more intensive study of specific topics in agriculture education. Prerequisite: Graduate standing.

AGED5463 Research Methodology in the Social Sciences (Sp) Logical structure and the method of scientific research. Selection, observation, measurement, analytic method, interpretation, verification, presentation of results. Applications to research in economic or sociological problems of agriculture and human environmental sciences. Prerequisite: Graduate standing. (Same as AGEC 5013, HESC 5463, RSOC 5463)

AGED5473 Interpreting Social Data in Agriculture (Fa) The development of competencies in analyzing, interpreting, and representing statistical data and research in agricultural education. Prerequisite: AGST 4023 (or EDFD 5393) and AGED 5463 (or RSOC 5463).

AGED550V College Teaching in Agriculture and Extension Education (Fa) The development of competencies in analyzing, interpreting, and representing statistical data and research in agricultural education. Prerequisite: AGST 4023 (or EDFD 5393) and AGED 5463 (or RSOC 5463).

AGED610V Special Problems (Sp, Su, Fa) (1-6) Individual research or study for advanced undergraduates in the field of agricultural education. Prerequisite: Graduate standing.

AGED620V Special Problems in Agricultural and Extension Education (Sp, Su, Fa) (1-6) Individual research or study for advanced undergraduates in the field of agricultural education. Prerequisite: Graduate standing.

AGED6401V Special Topics (Irregular) (1-3) Studies of selected topics in agricultural education not covered in other courses. (Same as AGED 401V) May be repeated for up to 4 hours of degree credit.

AGED4143 Electronic Communications in Agriculture (Even years, Sp) Theory and practice of planning, editing, designing, and producing electronic publications commonly used in agriculture, extension and related industries.

AGED4632 Teaching Diverse Populations in Agricultural and Extension Education (Sp) This course is designed to provide pre-service teachers of agriculture with an understanding of teaching diverse populations as applied to problems of practice in agricultural and extension education.

AGED475V Internship in Agri Educ (Sp, Su, Fa) (1-6) Scheduled practical field experiences under the supervision of a professional practitioner in off-campus secondary school systems. Emphasis includes classroom preparation, teaching, and student evaluation. Prerequisite: Admission into Clinical Practice. May be repeated for up to 6 hours of degree credit.

AGED4843 Methods in Agricultural Laboratories (Sp) Methods and management techniques in all types of agricultural laboratories that may be in a secondary agricultural science program. Emphasis on management of student and facilities, equipment, and materials. Lecture 2 hours, laboratory 4 hours per week. Prerequisite: AGME 2123.

AGED5001 Seminar (Sp) Presentations and discussion of graduate student research as well as review of current literature and topics of current interest by students and faculty. All graduate students will make at least one formal presentation.

AGED5013 Advanced Methods in Agricultural Mechanics (Fa) Emphasis on shop organization and management, courses of study, unit shop instruction, and development of skills in agricultural mechanics.

AGED5031 Ethics in Agricultural and Extension Education (Fa) A study of ethics as applied to problems of professional practice. The focus will be on case studies.

AGED5033 Developing Leadership in Agricultural Organizations (Fa) Organizational concepts of leadership; administrative styles and structures; leadership for boards, committees, governmental bodies, and review of societal and political processes. Prerequisite: Graduate standing.

AGED5053 Philosophy of Agricultural and Extension Education (Sp) An examination and analysis of social and economic events leading to the establishment and maintenance of federations, county, and local agricultural education programs. Lecture 3 hours per week. Prerequisite: Graduate standing.

AGED5074 Program Management Practicum (Irregular) Ag CDE students develop skills in project management and present a research project to a college level audience. Prerequisite: Graduate standing.

AGED520V Special Topics in Agriculture and Extension Education (Irregular) (1-4) Topics not covered in other courses or a more intensive study of specific topics in agriculture education. Prerequisite: Graduate standing.

AGED5463 Research Methodology in the Social Sciences (Sp) Logical structure and the method of scientific research. Selection, observation, measurement, analytic method, interpretation, verification, presentation of results. Applications to research in economic or sociological problems of agriculture and human environmental sciences. Prerequisite: Graduate standing. (Same as AGEC 5013, HESC 5463, RSOC 5463)

AGED5473 Interpreting Social Data in Agriculture (Fa) The development of competencies in analyzing, interpreting, and representing statistical data and research in agricultural education. Prerequisite: AGST 4023 (or EDFD 5393) and AGED 5463 (or RSOC 5463 or HESC 5463).

AGED550V College Teaching in Agriculture and Related Disciplines (Irregular) (1-3) For students who are pursuing graduate degrees where emphasis is on preparation for a research career, but who also may desire or expect to teach. Provides theory and practice in planning and executing a college-level course.

AGED575V Internship in Agricultural Education (Sp, Su, Fa) (1-6) Scheduled practical field experiences under supervision of a professional practitioner in off-campus secondary school systems. Emphasis includes classroom preparation, teaching, and student evaluation.

AGED600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.
Examination of careers and business opportunities in the equine industry. Students will gain the opportunity to identify high growth opportunities in equine-based business operations. Students will also gain skill at oral presentation and be knowledgeable of costs and responsibilities associated with horse ownership.

ANSC2213 Behavior of Domestic Animals (Fa) Behavior associated with domestication. Effects of selective breeding, physical and social environments, and development stage on social organization, aggressive behavior, sexual behavior, productivity, and training of domestic animals.

ANSC225L Introduction to Livestock and Meat Evaluation (Sp) Develop an understanding between live animal evaluation and carcass composition. Comparative judging including meat evaluation, classification and selection of beef cattle, sheep and swine.

ANSC2304 Equine Behavior and Training (Fa) Psychology and ethology of equine social behavior and how it pertains to learning patterns. Application of fundamental behavioral concepts to training of horses. Students will apply classical, practical, and proven equine training techniques to achieve safe, less-trumatic learning for the horse and trainer. Lecture two hours and laboratory six hours per week.

Prerequisite: Instructor consent.

ANSC2781 Career Preparation and Development (Fa) The importance of preparing for a career in the animal sciences and the establishment of a personal development plan. Lecture 3 hours per week.

Prerequisite: AGST 4011 and (AGST 4023 or STAT 4003).

ANSC2703 Case Studies in Biometry (Sp) Non-standard statistical problems arising in the agricultural, food, environmental, and life sciences not available under existing courses. May be repeated for up to 6 hours of degree credit.

ANSC2901 Advanced Theory of Animal Nutrition (Sp) Practical approach to animal nutrition; use of various methods of feedstuff evaluation and ration balancing for domestic animals. Laboratory 2 hours per week. Corequisite: BIOL 1543 and CHEM 1123 or CHEM 1174. (Same as POSC 3020).

ANSC3013 Animal Parasitology (Sp) The economically important parasites of domestic animals with emphasis on their host relationships and management considerations. Lecture 3 hours per week. Corequisite: Lab component. Prerequisite: ANSC 1032.

ANSC3016 Parasitology of Domesticated Non-Herbivores (Sp) Course will provide applied instruction in animal health with particular emphasis on diseases in swine, chickens, turkeys, dogs and cats. Prerequisite: ANSC 3003.

ANSC3032 Animal Physiology I (Fa) Fundamental aspects of normal and abnormal functions of the cardiovascular system. The normal structure and functions of these systems will be emphasized. Lecture 2 hours per week. Prerequisite: BIOL 1543 and CHEM 1123 or CHEM 1174. (Same as POSC 3020).

ANSC3042 Animal Physiology II (Sp) Fundamental aspects of renal, respiratory, digestive, and endocrine physiology will be covered. The normal structure and function of these systems will be emphasized. Lecture 2 hours per week. Prerequisite: ANSC 3032 or POSC 3032. (Same as POSC 3042).

ANSC3123 Principles of Genetics (Fa) Fundamentals of genetics, with special emphasis on the genetics of farm animals. Lecture 3 hours per week. Prerequisite: BIOL 1543 and MATH 1203 or higher. (Same as POSC 3123).

ANSC3133 Animal Breeding and Genetics (Sp) Application of principles of genetics to the improvement of farm animals. Lecture 3 hours per week. Prerequisite: ANSC 1032.

ANSC3143 Principles of Animal Nutrition (Sp) Scientific approach to developing and improving feeding mechanisms through which feed nutrients are utilized by farm animals. Lecture 3 hours per week. Prerequisite: CHEM 1074 and CHEM 1071L.

ANSC3151 Applied Animal Nutrition Laboratory (Fa) Practical approach to animal nutrition; use of various methods of feedstuff evaluation and ration balancing for domestic animals. Laboratory 2 hours per week. Corequisite: ANSC 3152, Prerequisite: ANSC 3143 and MATH 1203.

ANSC3152 Applied Animal Nutrition (Fa) Practical approach to animal nutrition; physical and chemical composition of feedstuffs, feed processing and preparation, nutrient interactions, and application of nutritional principles to feeding domestic animals. Lecture 2 hours per week. Corequisite: ANSC 3151L. Prerequisite: ANSC 3143 and MATH 1203.

ANSC3282 Livestock Judging and Selection (Fa) Comparative judging, including grading, classification, and selection of beef cattle, swine, sheep and horses. Oral and written discussion. Laboratory 6 hours per week. Prerequisite: ANSC 1032 or AGST 2930.

ANSC3291 Livestock Judging Junior-Judging Team Activity (Sp) Training for membership on judging teams, through participation.

ANSC3333 Diseases of Livestock (Sp) Introductory study of common diseases and disease problems in domestic animals. Lecture 3 hours per week. Prerequisite: BIOL 1543 and CHEM 1123.

ANSC3343 Fundamentals of Reproductive Physiology (Fa) Principles of mammalian reproductive physiology with emphasis on farm animals. Lecture 3 hours per week. Prerequisite: ANSC 1032 and BIOL 1543.

ANSC3613 Meat Science (Fa) The study of meat science and muscle biology. Topics will include animal tissue quality and processing, and development and production of meat of animal origin. Meat processing, preservation, and meat safety concerns will also be considered. Lecture 3 hours per week. Prerequisite: CHEM 2613 or CHEM 3603.

ANSC3723 Horse and Livestock Merchandising (Fa) Various types of merchandising programs for specific livestock enterprises will be presented. Students will evaluate the effectiveness of merchandising programs including how to organize, advertise, and manage a public or government auction sale of livestock.

ANSC3822 Equine Law (Odd years, Fa) Horse ownership presents unusual, if not unique, legal issues. This course examines the basic understandings of commercial transactions in horses, tort liability, business structure, environmental law and regulation.

ANSC400V Special Problems (Sp, Su, Fa) (1-6) Special problems in the animal sciences for advanced undergraduate students. May be repeated for up to 6 hours of degree credit.

ANSC401V Internship in Animal Sciences (Sp, Su) (1-6) Supervised work experience in the animal sciences, in either commercial or government organizations Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

ANSC410V Special Topics in Animal Sciences (Irregular) (1-4) Topics not covered in other specific topics in animal sciences. Prerequisite: ANSC 1032.

ANSC4252 Cow-Calf Management (Fa) Systems of cow-calf management including an integration of the principles of breeding, feeding, and management to commercial and purebred beef cattle under Arkansas conditions. Lecture 1 hour and laboratory 2 hours per week. Prerequisites: ANSC 1032 and ANSC 3143 and ANSC 3131 and ANSC 3483.

ANSC4263 Swine Production (Even years, Fa) Methods in producing purebred and commercial swine with an emphasis on the principles involved in the production of market hogs. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: ANSC 3123 and ANSC 3131.

ANSC4272 Sheep Production (Odd years, Sp) Purebred and commercial sheep management emphasizing the programs of major importance in lamb and wool production in Arkansas. Prerequisite: ANSC 1032 and ANSC 3483.

ANSC4283 Horse Production (Sp) Production, use and care of horses and ponies including breeding, feeding, handling, and management. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: ANSC 1032 and ANSC 3483.

ANSC4291 Livestock Senior Judging Team Activity (Fa) Training for membership on judging teams, through participation.

ANSC4452 Milk Production (Sp) Principles of breeding, feeding, and management of dairy cattle will be reviewed, and course will include field trip touring dairy industry. Prereq- uisite: ANSC 1032 and ANSC 3143.

ANSC4482 Companion Animal Management (Fa) The study and application of principles of domestication, nutrition, reproduction, parasitology, diseases, behavior, and husbandry management to companion animals. Dogs, cats, and exotic animals will be the species of primary interest. Practical problems of care and management of these species will be solved. Prerequisite: BIOL 1543 or equivalent.

ANSC4462 Stocker-Feedlot Cattle Management (Sp) Production and management systems for stocker and feedlot cattle involving practical applications of forage systems, feeding, health management and economics of production of these livestock. The course will include a tour of the stocker and feedlot industry in Arkansas, and surrounding areas. Prerequisites: ANSC 1032 and ANSC 3143 and senior standing.

ANSC500V Special Problems (Sp, Su, Fa) (1-6) Work in special problems of animal industry. May be re- peated for up to 6 hours of degree credit.

ANSC5013 Domestic Animal Antigens (Odd years, Sp) Physical, physiological and biochemical aspects of energy metabolism of domestic animals and their applications to livestock production. Lecture 3 hours per
**Anthropology (ANTH)**

**ANTH1011L Introduction to Biological Anthropology Laboratory (Fa)** Laboratory exercises illustrating concepts of physical anthropology. Corequisite: ANTH 1013.

**ANTH1013 Introduction to Biological Anthropology (Fa)** An introduction to the field of physical anthropology, using human evolution as a unifying concept. Areas include human genetics, race, speciation, primate evolution, and human variation and adaptation. Co- or Prerequisite: ANTH 1011L, or ANTH 1013.

**ANTH2012 Introduction to Cultural Anthropology (Sp, Su, Fa)** An introduction to the nature of culture and its influence on human behavior and personality; a comparative study of human institutions, and processes of change and integration of culture.

**ANTH2013 Introduction to Latin American Studies (Irregular)** This course provides an interdisciplinary introduction to Latin America. Drawing on Latin American literature, history, sociology, and political science, the course explores the broad forces that have shaped the region. (Same as LAST 2013)

**ANTH3003 World Prehistory (Irregular)** Survey of the prehistoric and early historic cultures of the Americas, Asia, and Africa.

**ANTH3021L Archeology Laboratory (Sp, Fa)** Laboratory exercises illustrating concepts of archeology. Corequisite: ANTH 3023.

**ANTH3023 Approaches to Archeology (Sp, Fa)** Study of the field of archeology including method, theory, analysis and interpretation with substantive worldwide examples. Corequisite: ANTH 3821L.

**ANTH3033 Egyptology (Irregular)** Explores multiple aspects of Ancient Egyptian civilization including chronology, art, religion, literature and daily life. Prerequisite: Junior standing.

**ANTH3123 The Anthropology of Religion (Sp)** An exploration of rituals, symbols, and rules that shape religious life. Religion is viewed broadly, considering activities that invoke powers beyond the reach of ordinary senses. Examining a variety of cultures, we explore what people say and do as they participate in activities such as magic, healing, pilgrimage, and contemporary religious movements.

**ANTH3134 Language and Expressive Culture (Irregular)** This course explores the relationship of language, culture, and social identity. Verbal art and expressive culture are examined from a variety of anthropological perspectives. Topics include ethnographies of spoken discourse analysis, cultural performances, and the performative aspects of oral expression. (Same as COMM 3143, ENGL 3143)

**ANTH3163 Male and Female: A Cultural and Biological Overview (Fa)** A comparative study of male and female roles in culture in relation to human biology and socialization.

**ANTH3173 Introduction to Linguistics (Irregular)** Introduction to language study with stress upon modern linguistic theory and analysis. Data drawn from various languages reveal linguistic universals as well as phonological, syntactic, and semantic systems of individual languages. Related topics: language history and change, historical reconstruction, and its relation to culture and society, the history of linguistic scholarship. Prerequisite: Junior standing. (Same as COMM 3173, ENGL 3173, FLAN 3173)

**ANTH3213 Indians of North America (Irregular)** Study of the Indians of North America and Mexico emphasizing lifeways at early White contact and subsequent acculturation.

**ANTH3253 Cultures of the South (Sp)** Survey of the diverse ethnic and racial groups of the American South with special emphasis on social and cultural traits related to contemporary developments. (Same as SOCI 3253)

**ANTH3263 Indians of Arkansas and the South (Odd years, Sp)** Study of the traditional lifeways and pre-historic habits of the prehistoric and early historic cultures of the Americas, Asia, and Africa.

**ANTH3473 North American Prehistory (Irregular)** Survey of the aboriginal prehistory of the North American Continent north of Mexico.

**ANTH3474 Human and Popular Protest in Latin America (Irregular)** This course focuses on the historical formation of Latin America by examining conflicts between the region’s rich and poor. It includes both an historical...
Course Descriptions

ANTH4532 Gender and Politics in Latin America (Irregular) This course examines the ways in which political struggles surrounding land, labor, and the environment have been focalized in Latin America. Why and how do peasant-workers engage their political worlds and how are such struggles shaped by gender?

ANTH5333 Medical Anthropology (Irregular) Survey of the relationship of human biology, culture and environment as reflected in disease experience from an evolutionary and cross cultural perspective. Special emphasis on stress.

ANTH443 Geographic Information Science (Sp) Computer-assisted analysis and display of geographic resource data. Course develops the theory behind spatial data analysis techniques, and reinforces the theory with exercises that demonstrate its practical applications. Prior experience with computers and/or completion of GEOG 4523 (Computer Mapping) is useful but not a prerequisite. (Same as GEOG 3543)

ANTH4903 Politics in Anthropology (Irregular) Covers a special topic or issue. May be repeated for up to 12 hours of degree credit.

ANTH4923H Honors Colloquium (Irregular) Covers a special topic or issue as part of the honors program. Prerequisite: honors candidacy (not restricted to candidacy in anthropology).

ANTH3909H Honors Thesis (Sp, Su, Fa) (1-6) Prerequisite: probably standing. May be repeated for up to 12 hours of degree credit.

ANTH4103 History of Anthropological Thought (Fa) Detailed consideration of anthropological theory through major works and methodologies. The research paper in this course fulfills the Fulbright College research paper requirement for anthropology majors.

ANTH4303 Popular Culture (Irregular) Study of national and international varieties of popular culture, including music, dance, fashion, and the media. Emphasis will be given to both ethnographic approaches, which focus on the investigation of production and consumption of cultural forms and to cultural studies approaches, which see culture as a terrain of struggle.

ANTH4063 Women in Africa (Irregular) Diversity of women’s life experiences throughout sub-Saharan Africa will be examined. The class will investigate a range of topics from marriage and motherhood to prostitution and popular culture. A historical dimension will be present throughout the course, and perspectives from literature and film will also be incorporated. (Same as AAST 4063)

ANTH4093 The Archeology of Death (Irregular) Study of the analysis and interpretation of archeological mortuary remains and sites. Key archaeological and anthropological methods and theories will be used to investigate the social significance of the mortuary practices and to understand the role of the body in cultural and social construction.

ANTH4123 Ancient Middle East (Sp) The course provides an introduction to the methods and theories of the study of Middle Eastern societies from the beginning of civilization to modern times.

ANTH4013 History of Anthropological Thought (Fa) Introduction to the study of the human dentition including its anatomy, morphology, growth and development, and histology.

ANTH4533 Middle East Cultures (Sp) Study of the prehistoric and historic cultures of the Middle East. Focus will be on the relationship between religious life in Africa. ANTH4523 Medieval Archaeology (Fa) Introduction to the study of the human dentition including its anatomy, morphology, growth and development, and histology.

ANTH4583 Peoples and Cultures of Sub-Saharan Africa (Fa) An exploration of the people and places of Africa from prehistory to the present. Classic and contemporary works will be studied in order to underscore the unity and diversity of African cultures, as well as the importance of African societies have played in helping us understand the human condition.

ANTH4593 Introduction to Raster GIS (Fa) Theory, data structures, algorithms, and techniques behind raster-based geographical information systems. Through laboratory exercises and lectures multidisciplinary approaches are examined in database creation, remote sensed data handling, elevation models, and resource models using boolean, map algebra, and other methods. (Same as GEOG 4553)

ANTH4563 Vector GIS (Sp) Introduction to geographic information system in marketing, transportation, real estate, demographics, urban and regional planning, and related areas. Lectures focus on development of principles, paralleled by workstation-based laboratory exercises using Arc-node based software and relational data bases. (Same as GEOG 4453)

ANTH4583 Peoples and Cultures of Sub-Saharan Africa (Fa) An exploration of the people and places of Africa from prehistory to the present. Classic and contemporary works will be studied in order to underscore the unity and diversity of African cultures, as well as the importance of African societies have played in helping us understand the human condition.

ANTH4593 Introduction to Global Positioning Systems (Sp) Introduction to navigation, georeferencing, and digital data collection using GPS receivers, data loggers, and land surveying techniques in marketing, transportation, real estate, demographics, urban and regional planning, and related areas. Lectures focus on development of principles, paralleled by workstation-based laboratory exercises using Arc-node based software and relational data bases. (Same as GEOG 4453)

ANTH4593 Peoples and Cultures of Sub-Saharan Africa (Fa) An exploration of the people and places of Africa from prehistory to the present. Classic and contemporary works will be studied in order to underscore the unity and diversity of African cultures, as well as the importance of African societies have played in helping us understand the human condition.

ANTH4583 Peoples and Cultures of Sub-Saharan Africa (Fa) An exploration of the people and places of Africa from prehistory to the present. Classic and contemporary works will be studied in order to underscore the unity and diversity of African cultures, as well as the importance of African societies have played in helping us understand the human condition.

ANTH4263 Landscape Archaeology (Fa) This course provides an introduction to the methods and theories of landscape archaeology. Topics include archaeological survey techniques, environmental and social processes recorded in the archaeological landscape, and analysis of ancient settlement and land use data to reveal changes in population, resource utilization, and environmental relationships.

ANTH4131 Primate Adaptation and Evolution (Fa) Introduction to the biology of the order Primates. This course considers the comparative anatomy, behavioral ecology and paleontology of our nearest living relatives. Prerequisite: ANTH 1013 (or BIOL 1543 and BIOL 1541L). (Same as BIOL 4131)

ANTH463L Archeological Prospecting & Remote Sensing Lab (Odd years, Fa) Ground-based geophysical, aerial, and other remote sensing methods are examined for detecting buried features in archaeological and other deposits. These methods include magnetometry, resistivity, conductivity, radar, aerial photography, thermography, and multispectral scanning. Requires computer skills, field research and ANTH 4533. Prerequisite: ANTH 4543 or GEOG 4543 or ANTH 4553 or ANTH 4553 or ANTH 4573 or GEOG 4573 or GEOG 4513 and ANTH 3023.

ANTH4633 Archeological Prospecting & Remote Sensing Lab (Odd years, Fa) Ground-based geophysical, aerial, and other remote sensing methods are examined for detecting, mapping, and understanding archeological and other deposits. These methods include magnetometry, resistivity, conductivity, radar, aerial photography, thermography, and multispectral scanning. Requires computer skills, field research and ANTH 4533. Prerequisite: ANTH 4543 or GEOG 4543 or ANTH 4553 or ANTH 4553 or ANTH 4573 or GEOG 4573 or GEOG 4513 and ANTH 3023.

ANTH4653 Advanced Raster GIS (Irregular) Advanced raster topics are examined beginning with a theoretical and methodological review of Tomlin’s cartographic modeling principles. Topics vary and include Fourier methods, image processing, kriging, spatial statistics, principal components, fuzzy and regression modeling, and multi-criteria analysis. Several raster exercises are examined with links to statistical analysis software. Prerequisite: ANTH 4553 or GEOG 4553.

ANTH4603 Historical Archeology (Irregular) Review of the development of historical archeology and discussion of contemporary theory, methods, and substantive issues. Lab sessions on historic artifact identification and analysis.

ANTH4813 Ethnicographic Approaches to the Past (Irregular) Review of the uses of ethnographic data in the reconstruction and interpretation of past cultures and cultural processes, with particular emphasis on the relationship between modern theories of culture and archeological interpretation.

ANTH4863 Quantitative Anthropology (Irregular) Introductory statistics course for anthropology students. Probability theory, reasoning from data, graphical and numerical descriptive statistics, probability distributions, test for means and variances, categorical and rank methods. ANOVA, correlation and regression. Lectures focus on statistics while laboratories focus on computer exercises using a statistical software laboratory. (Same as GEOG 4863)

ANTH4903 Seminar in Anthropology (Irregular) Research, discussion, and projects focusing on a variety of topics. May be repeated for up to 12 hours of degree credit.

ANTH4913 Topics of the Middle East (Irregular) Covers a special topic or issue. May be repeated for up to 9 hours of degree credit.

ANTH4923 Karl Marx: Life, Work, and Legacy (Irregular) This course examines the writings of Karl Marx. Students will read and discuss his major works, including Capital, The German Ideology, and Grundrisse. In order to understand Marx’s writing, students will also explore his life, times, and legacy. (Same as PSLC 4923)

ANTH500V Advanced Problems in Anthropology (Sp, Su, Fa) (1-18) Individual research at graduate level on a topic within the department. May be repeated for up to 18 hours of degree credit.

ANTH5033 Settlements, Sites, and Models (Irregular) The modeling of potential archaeological resource locations within region receives significant resources and funding from government and private sectors. The theoretical and methodological basis behind such models is examined, as are the history, controversies, key issues, individuals, and contributions to the study of human ecology and cultural resources. Prerequisite: ANTH 4543 or GEOG 4543 or ANTH 4553 or GEOG 4553.

ANTH5053 Quaternary Environments (Fa) An interdisciplinary study of the Quaternary Period including stratigraphic sequences, deposits, soils, climates, tectonics, and human adaptation. Lecture 2 hours, laboratory 2 hours per week. (Same as GEOG 5053, GEOL 5053)

ANTH5103 Applications of Cultural Method and Theory (Fa) Review of the nature and history of cultural anthropology; recent theories and practical implications and applications of various methods of acquiring, analyzing, and interpreting cultural anthropological data.

ANTH5113 Anthropology of the City (Irregular) Examines cities as both products of culture, and sites where culture is made and received. Explores the implications of several postcolonial urban and cultural problems in the way in which representations of the city have informed dominant ideas about city space, function, and feel.

ANTH5153 Topics in Anthropology (Irregular) Same as ANTH 4153. May be repeated for credit on topics relating to cultural anthropology.

ANTH5203 Applications of Archaeological Method and Theory (Fa) Review of the nature and history of archaeological research; recent theoretical and practical implications and applications of various methods of acquiring, analyzing, and interpreting archaeological data.

ANTH5263 Indians of Arkansas and the South
variable topics in Anthropology will be explored in depth. May be repeated for up to 9 hours of degree credit. ANTH4033 Advanced Arabic I (Irregular) Development of advanced speaking and writing skills. Extensive reading and writing assignments and translating exercises from English into Arabic. Corequisite: ANTH 4016. ANTH4033 Advanced Arabic II (Irregular) Continued advanced speaking, reading, and writing skills. Prerequisite: ARAB 4023. ANTH4043 Advanced Conversation (Irregular) Continued development of aural comprehension and speaking skills in one of the major Arabic dialects. ANTH4053 Arabic Readings (Irregular) Develops skills in discourse analysis, and argumentation through weekly reading and writing assignments within a workshop atmosphere. Selected readings from various styles of standard Arabic, ranging from newspapers to literary texts. ANTH4113 Modern Arabic Literature (Irregular) Selected readings from Arabic fiction and poetry from the 20th century to the present. Prerequisite: ARAB 4033. ANTH4213 Introduction to Arab Culture (Irregular) Selected readings from Arab history, literature, the Islamic Tradition, and the Holy Qur'an. Prerequisite: ARAB 4033. ANTH470V Special Topics (Irregular) (1-6) May be offered only once not specifically covered by courses otherwise listed. ARAB575V Special Investigations (Irregular) (1-3)

Architecture (ARCH)

ARCH1003 Basic Course in the Arts: Architecture Lecture (Sp, Fa) Introduction to architecture, emphasizing the origins and development of architecture and objective criteria for its evaluation. For the general student. May not be pursued towards graduation requirements in either the B. Arch or B.A. in architectural studies degrees. ARCH1014 Architectural Design I (Sp, Fa) Seeing, drawing, and analyzing material and object: expression and craft. Studio and seminars 12 hours per week. Corequisite: ARCH 1012. ARCH1024 Architectural Design II (Sp, Su) Ideation, visualization, representation. Project sequence designed to develop perceptual and conceptual abilities; formal and spatial composition and synthesis. Studio and seminars 12 hours per week. Corequisite: ARCH 1222. Prerequisite: ARCH 1014. ARCH1212 Design Methods I (Sp, Fa) Interdis- ciplinary introduction to basic principles of design, from furniture and the room to buildings and the natural landscape. Urbanism and the public realm. Lecture 1 hour per week. Corequisite: ARCH 1014. ARCH1222 Design Methods II (Sp, Su) Theoreti- cal, formal, and constructive principles and their impact in the design discourse. Studio and seminar. Introduction to the intellectual and philosophical foundations of design theory. Lecture 1 hour per week. Corequisite: ARCH 1024. Prerequisite: ARCH 1211. ARCH2016 Architectural Design III (Fa) Introduction of formal principles and strategies used in space making, focusing on the development of plans and sections. Pre- cedents and the understanding of them through analysis and syntheses are used as a means of examining the past and the present while providing a framework from which personal design sensibilities can evolve. Corequisite: ARCH 2114 and ARCH 2223. Prerequisite: ARCH 1024. ARCH2026 Architectural Design IV (Sp) An elaboration of space-making, addressing three-dimensional aspects of form-making, including the influence of structural systems, articulation of the vertical section, and exterior expression; the role of site as a generator of form; and the overarching importance of technics, including the materiality of space, structure, and light. Corequisite: ARCH 2124. Prerequisite: ARCH 2016. ARCH2114 Architectural Technology (Fa) Intro- duction to the fundamentals of building systems technology. Emphasis on the interrelationships of site, environmental, structure, and enclosure systems. Focus on the integration of all systems and the role of the architect and contractor in the organization of the building and its context. Corequisite: ARCH 2016. Prerequisite: ARCH 1024 and ARCH 1221. ARCH2124 Architecture Technology II (Sp) Study

of force systems, section properties, equilibrium and stability of building structures. Relationship of material properties and structural member behavior to forces acting on the building structural system. Specific topics are: stress/strain relationships of various materials; types of stress; shear and moment diagrams; design and analysis of simple wood and metal framing systems; integral and hybrid systems; and use of structural analysis computer programs. Three hours of lecture and one hour of laboratory exercises in principles and practices of architectural technology each week. Corequisite: ARCH 2026. Prerequisite: ARCH 2114 and PHYS 1044. ARCH2233 History of Architecture I (Fa) Critical study and analysis of architecture from ancient times through the early medieval period, including pre-classical, classical, early Christian, Byzantine, Proto-Romanesque, Romanesque, and Gothic periods. ARCH2243 History of Architecture II (Sp) Critical study and analysis of western architecture from the renais- sance to the mid-nineteenth century. Prerequisite: ARCH 2233. ARCH3016 Architectural Design V (Fa) Emphasis on issues of design process, exploration of internal and exter- nal determinants of form and the integration of appropriate technologies in design solutions. Corequisite: ARCH 3134. Prerequisite: ARCH 2026. ARCH3026 Architectural Design VI (Sp) Studio-based analysis and design of structural and enclosure systems for buildings with particular emphasis on systems interface and application within the context of design exercises. Investigations of the appropriate use of materials and assemblies for varied programmatic and environmental criteria. Twelve hours of studio each week. Prerequisite: ARCH 3016. ARCH3030 Special Projects (Irregular) (1-6) Individual or group investigation in research, visual com- munication, history, or design concerning special interests of student or faculty. ARCH3034 Architectural Technology III (Fa) Emphasis on structural, mechanical, plumbing, electrical, fire protection, natural and electric lighting systems and environ- mental considerations of energy usage, code requirements, and systems selection and integration. Three hours lecture and one hour laboratory exercises in principles and practices of architectural technology each week. Corequisite: ARCH 3016. Prerequisite: ARCH 2124. ARCH3743 Furniture Design (Irregular) Design con- cepts and techniques to acquaint the student with the design of furniture; analysis of function, development of design and construction of small pieces of furniture. ARCH4016 Architectural Design VII (Fa) Emphasis on issues of typology, context and technological suitability as sources of theoretical and developmental responses. Prerequisite: ARCH 3026. ARCH4023 Advanced Architectural Studies (Sp, Fa) Advanced seminars in subjects to special interest to students and faculty. ARCH4026 Architectural Design VIII (Sp) Continuation of architectural Design V, emphasizing the development of advanced design concepts and techniques toward the integration of building systems. Introduction to organization, preparation, and context of construction draw- ings. Three hours lecture and one hour laboratory exercises in principles and practices of architectural technology each week. ARCH4433 History of Architecture III (Fa) Critical study and analysis of the history and theories of modern architecture from the mid-nineteenth century to the present. Prerequisite: ARCH 2233 and ARCH 2243. ARCH4483 Architecture of the Americas (Ir- regular) Study of the development of architecture in the Americas from the pre-Columbian cultures to the present day. Lecture and slides 3 hours per week. ARCH4523 Architectural Theory (Sp) Introduction to architectural theories and their relationship to modern historiography. Case studies and analytical essays for the critical evaluation of significant texts and the discernment of concepts embedded in textual structures. Reading theory through established historical categories establishes critical insight into the origins, development, and future of architectural theories. Prerequisites: ARCH 2223, ARCH 2243, and ARCH 4433. ARCH4610 Architecture Cooperative Education I

Arabic (ARAB)

ARAB1016 Intensive Arabic I (Fa) Equivalent to 1003 and 1013. Stresses correct pronunciation, aural pre- comprehension, and simple speaking ability. Basic grammar is taught inductively through oral and written skills. ARAB2013 Intermediate Arabic II (Sp) Continued development of speaking, comprehension, reading, and writing. Emphasizes morphology and syntax. Prerequisite: ARAB 2003. ARAB2016 Intensive Arabic II (Sp) Equivalent to 2003 and 2013. Leads to greater oral comprehension and speaking ability and develops the more advanced reading and writing skills. Continued emphasis on morphology and syntax. Prerequisite: ARAB 1013 or ARAB 1016. ARAB3016 Intensive Arabic III (Fa) Leads to greater facility in the spoken language and continues to develop read- ing and speaking skills. Continued emphasis on morphology and syntax. Prerequisite: ARAB 2016. ARAB4016 Intensive Arabic IV (Sp) Continued development of speaking, comprehension, reading, writing.
(Irregular) A practicum which introduces and engages the student in the practice and application of the profession. Prerequisite: completion of program requirements, 2.5 minimum GPA and permission of the faculty.

ARCH5016 Architectural Design IX (Su, Fa) Comprehensive project with complex problem covering issues at both urban and architectural scales. Students synthesize the knowledge and critical thinking acquired during the previous four years of their education including theory, history and technology and programming.

ARCH5125 Architectural Design X (Sp, Fa) Final design studio. Offers projects with complex building programs, site and context issues. Students are expected to demonstrate skills in generating design ideas supported by clear understanding of program, carrying designs from initial concept to final project, and able to integrate building technology. Prerequisite: ARCH 5016.

ARCH5253 Architectural Structures Seminar (Irregular) Advanced discussion, investigation, design, and analysis of structural systems, forms, and materials as determinants of architectural design. May be repeated for up to 6 hours of degree credit.

ARCH5314 Architectural Professional Practice (Fa) Study of role and responsibility of the architect, owner, and contractor relationships; professional ethics; organization of the architect’s office; contracts and other documents; risk management strategies; and the preparation of the technical specifications and bidding documents of the Project Manual. Prerequisite: ARCH 4026.

ARCH5493 History of Urban Form (Irregular) Study of the physical form of cities from ancient Greece to contemporary America with emphasis on urban form as an expression of physical and cultural determinants. Included are investigations into the history, theory, and practice of urban design. Prerequisite: ARCH 2233 and ARCH 2443 and ARCH 4433.

ARCH5933 Preservation and Restoration (Irregular) History of the preservation and restoration movement in Europe and the U.S.; its relation to the contemporary urban planning and renewal. Modern economic and administrative techniques of preservation. Participation in history surveys at regional and state levels.

Art Education (ARED)

ARED3603 Public School Art for Elementary Schools (Sp, Fa) Selection, preparation, and use of instructional materials for art in the elementary school. Artistic development of the child and implications to learning in art and other academic areas. Prerequisite: ARTS 1303 and ARHS 1003 and admission to teacher education.

ARED3613 Public School Art I (Irregular) Selection, preparation and use of instructional materials in elementary and secondary schools, including field experiences in the certification in art. Prerequisite: ARTS 1013 and ARTS 1313 and ARTS 1223 and ARTS 2013.

ARED3643 Teaching Art in Elementary Schools (Fa) Methods and materials used in teaching elementary school art. Prerequisite: ARED 3613.

ARED3653 Teaching Art in Secondary Schools (Sp) Methods and materials used in teaching secondary school art. Prerequisite: ARED 3603 or ARED 3613.

ARED4633 Individual Research in Art Education (Sp, Fa) Independent study in specific areas of art education. Prerequisite: 6 hours of art education.

ARED476V Student Teaching in Art (Sp, Fa) A minimum of 6 weeks will be spent in an off-campus school. During this time the student teacher will have an opportunity under supervision to observe, to teach and participate in other activities involved in the school and community. Prerequisite: BFA degree in Art Education.

ARCH54813 The History of Photography (Irregular) Survey of photography from 1688 to present. ARCH54823 History of Graphic Design (Irregular) Survey of graphic design history from 1850 to the present. Prerequisite: ARHS 2923.

ARCH54833 Ancient Art (Irregular) Study of selections from the cultures of Egypt, Greece, Rome, and Rome. Prerequisite: ARHS 2913.

ARCH54843 Gothic Art (Irregular) Study of Early Christian, Byzantine, Early Medieval, Romanesque, and Gothic styles. Prerequisite: ARHS 2913.

ARCH54853 Italian Renaissance Art (Irregular) Study of Proto-Renaissance, Early High Renaissance, and Mannerist styles in Italy. Prerequisite: ARHS 2923.

ARCH54863 Medieval Art (Irregular) Study of Late Gothic and Renaissance styles in the Netherlands, Germany, and France. Prerequisite: ARHS 2923.

ARCH54873 Baroque Art (Irregular) Study of art of the 17th and 18th centuries, primarily in Italy, Spain, France, Flanders, and the Netherlands. Prerequisite: ARHS 2923.

ARCH54883 19th Century European Art (Even years, Fa) Study of Neo-Classical, Romanticist, Realist, Impressionist, and Post-Impressionist styles. Prerequisite: ARHS 2923.

ARCH54893 20th Century European Art (Odd years, Sp) Study of art and styles and movements of the century, including Cubism, Fauvism, German Expressionism, and Surrealism. Prerequisite: ARHS 2923.

ARCH54913 American Art to 1900 (Odd years, Fa) The visual arts in the United States from the beginning in Colonial times through the nineteenth century. Prerequisite: ARHS 2923.

ARCH54923 American Art Since 1900 (Even years, Sp) The visual arts in the United States from the beginning in the twentieth century to the present. Prerequisite: ARHS 2923 and ARTS 4923.

ARCH54933 Seminar in Contemporary Art (Irregular) Study of art and media in the visual arts and the role of art in society. Prerequisite: 9 hours of art history.

ARCH54963 Individual Research in Art History (Sp, Fa) Independent study in specific areas of art history and criticism. Prerequisite: 12 hours of Art History.

ARCH54973 Seminar in Art History (Irregular) Special studies of periods and styles of art. Prerequisite: 9 hours of Art History.

ARCH54983 Special Topics in Art History (Irregular) Subject matter not covered in regularly offered courses, and relating to the history of art before the sixteenth century. May be repeated (for different topics) for up to 6 hours. Prerequisite: ARHS 2913 or ARCH 2923. May be repeated for up to 6 hours of degree credit.

ARCH54989 Special Topics in Modern Art (Irregular) Subject matter not covered in regularly offered courses, and relating to the history of art from the sixteenth century to the present. May be repeated (for different topics) for up to 9 hours. Prerequisite: ARCH 2923 or ARCH 4923. May be repeated for up to 9 hours of degree credit.

ARCH56933 Graduate Research in Art History (Sp) Independent study in specific areas of art history and criticism. Prerequisite: ARCH 5693 Seminar: Critical Thought in Art (Fa) Explore topics of concern to the studio artist involving underlying concepts and purposes of art as well as models and methods for the analysis of Art. Course based on discussions of selected readings, prepared papers and seminar reports. Prerequisite: graduate standing. May be repeated for up to 3 hours of degree credit.

Arts and Sciences (ARSC)

ARSC1001 Fullbright Perspectives (Fa) Open to incoming students, freshmen who are participating in the university’s First Year Experience. Available for credit only.

ARSC300V Study Abroad (Sp, Su, Fa) (1-15) Open to undergraduate students studying abroad in officially sanctioned programs. May be repeated for up to 24 hours of degree credit.

ARSC310V Cooperative Education (Sp, Su, Fa) (1-4) Required of participants in cooperative education work assignments. Available for credit only. May be repeated for up to 36 hours of degree credit.

ARSC500V Study Abroad (Sp, Su, Fa) (1-6) Open to graduate students studying abroad in officially sanctioned programs. May be repeated for up to 24 hours of degree credit.

Art (ARTS)

ARTS1003 Basic Course in the Arts: Art Studio (Sp, Su, Fa) Provides experience through participation in the arts.

ARTS1113 Drawing Fundamentals I (Sp, Fa) Problems dealing with materials and techniques of drawing, including basic concepts of line, perspective, and value.

ARTS1133 Two-Dimensional Design (Sp, Fa) Studio problems in the use of line, shape, texture, value, and color in developing their relationships.

ARTS1233 Three-Dimensional Design (Sp, Fa) Studio problems with the elements of three-dimensional design: structure, space, form, surface, and their relationship. ARTS2003 Drawing Fundamentals II (Sp, Fa) Continuation of Drawing Fundamentals. Prerequisite: ARTS 1013.

ARTS2013 Figure Drawing (Sp, Fa) Continuation of drawing fundamentals with emphasis upon human figure studies. Prerequisite: ARTS 1013.

ARTS2103 Computer Applications in Art (Sp, Fa) Introduction to digital imaging in the visual arts. Beginning in reduction in digital image creation, manipulation and processing. Introduction to input and output peripherals, computer graphic software programs and work in the digital visual arts. Prerequisite: ARTS 1313.

ARTS2033 Drawing III (Fa) Advanced studies and problems in drawing techniques and materials. Prerequisite: ARTS 2003 and ARTS 2013.

ARTS3103 Painting I (Sp, Fa) An exploration of cool color hues and the portrayal of color in both representational and non-representational art, using common materials and procedures. Prerequisite: ARTS 1313 and ARTS 1313 or ARTS 1025.

ARTS3113 Painting II (Sp, Fa) An expanded use of materials, procedures, subject matter, and approaches. Prerequisite: ARTS 3103.

ARTS3123 Painting: Water Media (Sp) Introductory course presenting basic materials and techniques of watercolor, gouache, and acrylic painting in combination to be studied through observation and imagination. Traditional techniques as well as experimentation and personal expression are to be explored. Prerequisite: ARTS 1013 and ARTS 1223 and ARTS 1303.

ARTS3133 Figure Painting (Sp) Introduction to representational and interpretive figure painting and to contemporary issues in figurative painting. The model as well as other visual sources will be used as a basis for observation, interpretation and invention. Prerequisites: ARTS 2013, ARTS 3103.

ARTS3203 Sculpture I: Fundamentals of Modelmaking & Casting (Fa) An introduction to fundamental additive and subtractive sculpture techniques and methods of seeing and working that give expression to material form. Beginning techniques in modeling, carving, modeling, and casting are demonstrated. Lectures, readings, and critiques will develop student awareness of traditional building techniques which inform contemporary sculpture practices. Prerequisite: ARTS 1313 and ARTS 1223 and ARTS 1303.

ARTS3213 Sculpture II: Construction Methods & Alternative Media (Sp) A focus on material sensitivity and thoughtful skilful additive approaches. Woodworking as well as construction techniques in alternative media are introduced as tools to examine structural and spatial possibilities. Through examining and questioning the interplay of form, material, technique, and content, students will further develop their own critique skills. Prerequisite: ARTS 3203.

ARTS3333 Color Studies (Fa) Investigation of color qualities and relationships through research and studio problems. Prerequisite: ARTS 1313 and ARTS 1323 and ARTS 1324.

ARTS3343 Design and Construction: Conceptual Design (Irregular) Development of design principles and the application of design processes to posters, logos, stationery, and publication design. Conceptual visualization, presentations, and critique are emphasized. Prerequisite: ARTS 1013 and ARTS 2313.

ARTS3403 Etching I (Sp) Introduction to intaglio and relief. Prerequisite: ARTS 1313 and ARTS 2003 or ARTS 2013 or ARTS 2023.

ARTS3413 Etching II (Sp) Advanced work in intaglio or relief. Students select one area for study. Intaglio emphasizes working with copper plates and color printing. Background
in color studies preferred but not mandatory. Prerequisite: ARTS 3403 or ARTS 3463.

ARTS4021 Digital Photography (Irregular) Introduction to digital photography techniques, including digital camera usage. May be repeated for up to 6 hours of degree credit.

ARTS4134 Painting III (Fa) Concentration of the technical, aesthetic, and creative aspects of painting. Prerequisite: ARTS 3113.

ARTS4163 Painting IV (Sp, Fa) Advanced painting for students preparing for senior status. Prerequisite: ARTS 4143. May be repeated for up to 6 hours of degree credit.

ARTS417V Special Problems in Painting (Sp, Fa) Individual investigation of a subject under the guidance of the instructor. May be repeated for up to 6 hours of degree credit.

ARTS4213 Mixed Media & Spatial Context (Irregular) An exploration in assemblage, installation, environmental art, light, and kinetics as they apply to contemporary sculptural language. Specific problems utilizing various media are presented by readings, lectures, and demonstrations. Prerequisite: ARTS 3203.

ARTS4223 Advanced Sculpture (Irregular) A directed analysis of form and its relationship to content based on the development of work in students’ medium of choice. Students will acquire the technical skills needed to meet personal vision to prepare them for graduate study. Research evidenced in work, discussions, and critiques is emphasized. Prerequisite: ARTS 3203 and ARTS 3213.

ARTS423V Special Problems in Sculpture (Sp, Fa) Individual investigation of a subject under the guidance of the instructor. May be repeated for up to 6 hours of degree credit. Prerequisite: ARTS 4223.

ARTS4343 Advanced Design (Sp) Studio problems in the interrelationships of two and three-dimensional elements in traditional, experimental, and digital media. Prerequisite: ARTS 1313 and ARTS 1323.

ARTS4345 Special Problems in Design (Sp, Fa) Individual investigation of a subject under the guidance of the instructor. May be repeated for up to 6 hours of degree credit. Prerequisite: ARTS 4343.

ARTS4363 Graphic Design Typography (Irregular) Studies include type as form, typographic contrast principles, legibility, text organization and hierarchy, and experimental approaches to typographic design. Overview of typographic history is included. Current computer software applications utilized. Prerequisite: ARTS 3363.

ARTS4373 Graphic Design: Symbols (Irregular) Emphasis on the development of logos, pictograms, symbols and conceptual image. Maya be repeated for up to 6 hours of degree credit.

ARTS4423 Papermaking III (Sp, Fa) Advanced study in various printmaking media. Prerequisite: ARTS 3503 or ARTS 4413. May be repeated for up to 6 hours of degree credit.

ARTS4463 Etching III (Sp, Fa) Advanced study in various printmaking media. Prerequisite: ARTS 4423 or ARTS 4473.

ARTS4483 Advanced Photography (Sp) Examines the fundamentals of sequential imaging and storytelling as a graphic design. May be repeated for up to 6 hours of degree credit.

ARTS4563 Graphic Design Typography (Irregular) Studies include type as form, typographic contrast principles, legibility, text organization and hierarchy, and experimental approaches to typographic design. Overview of typographic history is included. Current computer software applications utilized. Prerequisite: ARTS 3363.

ARTS4613 Visual Design: Web I (Fa) This course introduces students to the World Wide Web and the technologies and practices involved in creating a successful Web presence. Discussions include interactivity, usability and accessibility with an emphasis on handcoding standards-based XHTML and cascading style sheets and a special attention to graphic design standards. Prerequisite: ARTS 3363.

ARTS4623 Visual Design: Web II (Sp) This course will study advanced techniques in creating successful Web sites, including interaction architecture, cascading style sheets, Web animation, digital photography, sequential storytelling and actual client work. Experimentation in concept, style and format are encouraged as students scrutinize the limitations and potential for design of the World Wide Web. Prerequisite: ARTS 4613.

ARTS4653 Elements of Animation (Fa) This course explores the fundamentals of sequential imaging and storytelling through traditional methods through modern animation software. Topics include use of digitizing devices, animation software, and a 3D animation package. Prerequisites: ARTS 1013, ARTS 1313, ARTS 2313.

ARTS4663 Visual Design: Advanced Animation (Sp) Coursework includes completing an in-depth project in one animation form, from story creation and scripting, to storyboard, set building, footage gathering, photography or modeling, and audio recording. Prerequisite: ARTS 4653.

ARTS469V Special Problems in Interactive Design (Sp, Fa) (1-6) Individual investigation of a subject under the guidance of the instructor. May be repeated for up to 6 hours of degree credit.

ARTS4823 Color Photography I (Irregular) Introduction to color production. Color models, techniques and theory. Direct reversal transparencies and prints, color negative processing and printing, and manipulation of color materials. Assignments, demonstrations, critiques, and lectures. Prerequisite: ARTS 3803.

ARTS484V Special Problems in Photography (Sp, Fa) (1-6) Individual instruction for advanced undergraduates and graduate students. Special problems in photography designated by students in collaboration with faculty. Prerequisite: ARTS 3803 and (ARTS 3813 or ARTS 4823 or ARTS 4833). May be repeated for up to 6 hours of degree credit.

ARTS4853 Documentary Photography (Irregular) This course will introduce students to a variety of methods used in the area of documentary photography in order to give them the conceptual and technical skills necessary to create extended projects that focus on and explore social issues, with various types of media, from DVD and digital video to Web and graphic images. Cross-discipline collaboration is encouraged. Prerequisites: ARTS 4613 and ARTS 4623 and ARTS 4653. May be repeated for up to 6 hours of degree credit.

ARTS490VH Honors Thesis (Sp, Fa) (1-6) Special problems in studio, art history, art criticism, art education, or a combination of these. Prerequisite: junior standing. May be repeated for up to 12 hours of degree credit.

ARTS491V Internships in Art (Sp, Su, Fa) (1-3) Credit for practical experience gained through internship in art faculty in a formal presentation. Prerequisite: Art Majors only. Requires junior, senior or graduate standing.

ARTS493V Fine Arts Gallery Internship (Sp, Su, Fa) (1-3) Study all aspects of operating a Fine Arts Gallery. Research and preparation for exhibitions, organize and install exhibits, care of art works, create and distribute publicity, arrange interviews with newspapers, and other media. Prerequisite: ARTS 494V Graphic Design Internship (Sp, Su, Fa) (1-6) Credit for practical experience gained through internship in graphic design. Report required from intern and field supervisor on significant accomplishments and/or progress. Prerequisite: junior standing. Art major. May be repeated for up to 6 hours of degree credit.

ARTS4921 Senior Portfolio Review (Sp, Fa) Capstone course. A portfolio of creative work and supporting artist statement will be prepared for a faculty review. Art major. May be repeated for up to 6 hours of degree credit.

ARTS493VH Senior Thesis (Sp, Fa) (1-6) May be offered in a subject not specifically covered by the courses otherwise listed. May be repeated for up to 6 hours of degree credit.

ARTS495V Special Topics (Irregular) (1-6) May be offered in a subject not specifically covered by the courses otherwise listed. May be repeated for up to 6 hours of degree credit.

ARTS496V Special Topics (Irregular) (1-6) May be offered in a subject not specifically covered by the courses otherwise listed. May be repeated for up to 6 hours of degree credit.

ARTS59901 Graduate Critique (Sp, Fa) (1-6) Graduate level study of drawing materials and techniques. Prerequisite: graduate standing.

ARTS59901 Graduate Critique (Sp, Fa) Art faculty and graduate students. Prerequisite: admission into the M.F.A. program.

ARTS59912 Graduate Seminar in Studio Arts (Sp, Fa) Examination and analysis of current issues in contempo-
Astronomy (ASTR)

ASTR2001L Survey of Fine Arts Exhibition (Sp, Su, Fa) (1-6) Presentation and production of a one person exhibition of works. M.F.A. candidate will be responsible for making three acceptable slide sets of the exhibition and exhibition statements. Prerequisite: M.F.A. candidacy.

ASTR2002 Graduate Drawing (Sp, Su, Fa) (1-6) Individual problems in drawing techniques. Prerequisite: graduate standing.

ASTR201V Graduate Painting (Sp, Su, Fa) (1-6) Individual problems in painting techniques. Prerequisite: graduate standing.

ASTR202V Graduate Sculpture (Sp, Su, Fa) (1-6) Individual problems in sculpture techniques. Prerequisite: graduate standing.

ASTR302V Graduate Design (Sp, Su, Fa) (1-6) Individual problems in two and three dimensional design. Prerequisite: graduate standing.

ASTR304V Graduate Printmaking (Sp, Su, Fa) (1-6) Individual problems in printmaking techniques. Prerequisite: graduate standing.

ASTR305V Graduate Ceramics (Sp, Su, Fa) (1-6) Individual problems in ceramic techniques. Prerequisite: graduate standing.

ASTR306V Graduate Photography (Sp, Su, Fa) (1-6) Individual problems in photography. Prerequisite: graduate standing.

ASTR403V Special Studio Problems (Irregular) (1-6) Individual problems in studio areas on arranged basis. Prerequisite: graduate standing.

ASTR509V Special Topics (Irregular) (1-6) Subject matter not covered in other courses. Prerequisite: graduate standing. May be repeated for up to 12 hours of degree credit.

Biological Engineering (BENG)

BENG1012 Biological Engineering Design Fundamentals (Irregular) Introduction to the profession of Biological Engineering including a definition, historical perspective, and introduction through field trips, guest speakers, examples of job opportunities and internships. Basic engineering methodology, including analysis and design, as applied to biological systems. Introduction to problem solving, data analysis, report writing, presentations, and engineering record keeping. Group activities including reporting, project management, 1 hour, laboratory 3 hours per week. Corequisite: Lab component.

BENG1022 Biological Engineering Design Studio I (Irregular) Practice of biological engineering design in the Biological Engineering Design Program. Design projects explore the unique problems associated with engineer- ing applied to biological systems. Group activities to teach teamwork skills in the context of engineering practice, including reporting, project management, 1 hour, laboratory 3 hours per week. Corequisite: Lab component.

BENG4102 Biological Engineering Design Studio II (Fa) Applications of biology, chemistry and physics to the design of life support for enclosed biological systems involving people, animals, plants and microbes. Design process will be based upon engineering analyses such as quantifying bio-energetics and growth, energy and mass balances, solar energy and use of watermathed modeling tools. Student teams will be presented multiple design modules that include literature/experimental discovery, open-ended design and prototype testing. 4 hours of design studio per week. Prerequisite: BENG 1012 or GNEG 1103. Corequisite: Lab component.

BENG4112 Biological Engineering Design Studio II (Fa) (1-4) Selection of BENG courses available to seniors. The course covers stellar evolution, interstellar medium, and chemical, and biological properties of biological materials necessary for the analysis and design of production and processing systems. Lecture 2 hours per week. Prerequisite: BENG 2601.

BENG3131 Biomedical Engineering: Emerging Methods and Applications (Sp) Introductory course for undergraduate biomedical engineering students. Emerging biomedical engineering topics including: tissue engineering, stem cell engineering, bioelectronics, medical imaging and bioinformatics, medical device design. Methods of risk analysis modeling and simulation with applications to emerging principles in the design of biologically-based equipment. Topics include: brief overview of anatomy and physiology; bioelectronic phenomena, physiological modeling, cardiovascular system, biomechanics, computational biology. Requires a background in circuits, fluid dynamics, mechanics, biology, and chemistry. Lecture 3 hours per week. Prerequisite: BIOL 4203, MEEG 2403 or CHEG 2313, CHEG 2313 or ELEG 2103, MEEG 3503 or CHEG 3213 or CHEG 2313, MEEG 3013, BENG 2601 or MATH 3404. Corequisites: CHEG 1103, MEEG 2403 or CHEG 2313, CHEG 2303 or CHEG 3213 or CHEG 2313, MEEG 3013, BENG 2601 or MATH 3404.

BENG4223 Numerical Methods in Biomedical Engineering (Sp) Application of mathematical techniques and numerical methods for analyzing biological data and solving biological problems. The emphasis will be on computer simulation and mathematical modeling applications in biomedical engineering. Prerequisite: MATH 3404.

BENG4283 Electronic Response of Biological Tissues (Irregular) Use of electronic response to electromagnetic radiation, concept of field, remote sensing, and geo-spatial analysis applied to monitoring of natural processes and resources. Course topics include introduction to electromagnetic radiation, concept of field, remote sensing, and light attenuation by atmosphere, objects and sensors. Advanced topics include data models, spectral transforms, spatial transforms, correction and calibration, geo-rectification, and image classification with hyperspectral and multi-spectral images acquired by remote sensing sensors. Raster GIS is integrated into the course throughout the semester. Will use software such as ENVI, ArcGIS and ArcView. Lecture 2 hours, lab 3 hours per week. Prerequisite: CHEG 2203, BENG 2601, CHEG 3213, MEEG 2403 or CHEG 2313.

BENG4290 Special Topics in Biomedical Engineering (Fa) (1-6) Subject matter not covered in other courses. Prerequisite: graduate standing. May be repeated for up to 4 hours of degree credit.

BENG4511H Honors Thesis (Sp, Su, Fa) (1-6) Prerequisite: Honors candidacy.

BENG452V Special Topics in Biological Engineering (Irregular) Subject matter not covered in other courses. Prerequisite: graduate standing. May be repeated for up to 8 hours of degree credit.

BENG4703 Biotechnology Engineering (Fa) Principles and techniques of microbial growth, mass balances, bioprocess engineering as well as emerging principles in the design of biologically based microbial and enzymatic production systems. Application ar- eas include biofuels, and fine and bulk chemical production. Lecture 2 hours, laboratory 3 hours per week. Prerequisite: BENG 2622. Corequisite: Lab component.

BENG4803 Precision Agriculture (Odd years, Fa) (1-6) Principles and techniques of microbial growth, mass balances, bioprocess engineering as well as emerging principles in the design of biologically based microbial and enzymatic production systems. Application areas include biofuels, and fine and bulk chemical production. Lecture 2 hours, laboratory 3 hours per week. Prerequisite: BENG 2622. Corequisite: Lab component.

Students are expected to have basic computer skills and statistics knowledge. Corequisite: Lab component. Prerequisite: MATH 1213 and junior standing; yield monitoring.

BENG4813 Senior Biological Engineering Design I (Fa) Design concepts for equipment and processes used in biological, food and agricultural industries. Initiation of comprehensive team-design projects; integrating design objectives, developing functional/mechanical criteria, standards, reliability, safety, ethics and professionalism in biological, food and agricultural industries. Lecture 2 hours, laboratory 3 hours per week. Corequ.-uiste: Lab component. Prerequisite: consent of instructor. Corequ.-uiste: BENG 3733.

BENG4822 Senior Biological Engineering Design II (Sp) Continuation of BENG 4813. Design concepts for equipment and processes used in biological and agricultural industries. Completion of 2-semester team design projects. Construction, testing, and evaluation of prototypes. Written and oral design reports. Discussion of manufacturing meth- ods, sampling, quality, and control methods as appropriate for project based designs. Laboratory/ design 4 hours per week. Prerequisite: BENG 4813.

BENG4903 Watershed Eco-Hydrology (Sp) Engi- neering principles applied to the design and management of surface water flow and hydrologic processes within eco- systems. Includes frequency analysis of rainfall, infiltration, runoff, evapotranspiration. Use of GIS/mathematical models to quantify and simulate the impact of development at the watershed/landscape scale. Design/implementation of best management practices and ecological engineering principles and processes for advanced ecological services. Lecture 3 hours per week. Prerequisite: CHEM 2133.

BENG4923 Ecological Engineering Design (Fa) Design of low impact development techniques to enhance ecological services, reduce peak runoff, and capture sediments, nutrients, and pollutants resulting from urban development. Techniques may include: bio-swales, retention basins, and filter strips. Design of sustainable ecological processes for the treatment and utilization of wastes/substrates. Techniques include application to soils/crops, composting systems, lagoons and constructed wetlands.

Design goals include optimization of ecological services to maintain designated uses of land, water, and air, including enhancing air and water quality and recreation and the discovery of economically viable methods for coexistence of urban and agricultural land uses. Lecture 3 hours per week. Prerequisite: BENG4903.

BENG4904 Advanced Topics in Biological Engineering (Irregular) (1-6) Special problems in fundamental and applied research. Prerequisite: graduate standing. May be repeated for up to 6 hours of degree credit.

BENG4905 Advanced Topics in Biological Engineering (Even years, Sp) Applications of computer modeling and simulation interpretation. Emphasis on calibration, validation and simulation of discrete-event and continuous-time systems. Course topics include introduction to molecular biology and recombinant DNA technology, biological sequence comparison, and phylogeny techniques, as well as topics of current interest. (Same as CSCE 5213).

BENG5233 Biomedical Engineering Research Internship (Irregular) 6 credit hour research program (possibly up to several months) in a medical research environment working on an original engineering research issue. Possible specialty areas include Anesthesiology, Cardiology, Informatics, Optics, Orthopedic Surgery, and Radiology. Prerequisite: Graduate standing and approval of co-ordinator.

BENG5234 Tissue and Cell Engineering (Fa) This course introduces students to biological engineering and clinical aspects of tissue and cell engineering. The introduc- tion to stem cells and histology are reinforced with a concomi- tant lab that introduces cell culture techniques and illustrates fundamental aspects of various biological tissues. Topics include Cell Signalling, Transport and Kinetics, Salf- forms, Surface Interactions, Drug Delivery, and Clinical, Ethical and Regulatory Considerations. Two to three lecture hours per week plus two hours in the laboratory. Prerequisite: MATH 3404 and CHEM 3813.

BENG5243 Biomaterials (Sp) A graduate course on molecular-structure-property relationships in biomateri- als. Special focus on polymers, Orthopedic ceramic composites, and biodegradable materials. The design of artificial biomaterials for biosensors, drug delivery and medi- cal implants is considered. Host response and biocompati- bility factors are introduced. Previous course in materials desirable.

BENG5253 Bio-Mems (Irregular) Topics include the fundamental principles of microfluidics, Navier-Stokes Equations, surface and wall effects, hybrid integration of microfabrication technology, and various bio- medical and biological problems that can be addressed with microfabrication technology and the engineering challenges associated with it. Lecture 3 hours per week. Prerequisites: MEEG 3503 or CVEG 3213 or CHEG 2133. (Same as MEEG 5253).

BENG5263 Biomedical Engineering Principles (Fa) An introduction to design and analy- sis of systems affecting human health. This is a course focus- ing on fundamentals of physiologic and modeling systems. Topics include: brief overview of anatomy and physiology, bioelectric principles, microcompartmen- tal modeling, cardiovascular system and blood flow, biomechan- ics, computational biology and signal transduction. Requires a background in circuits, fluid dynamics, mechanics, biology, and/or physics. This course is primarily for upper division students that have the prerequisites. Students may not earn credit for both BENG 5263 and BENG 4223. Prereq- uisites: MATH 3404 or equivalent and graduate standing.

BENG5273 Numerical Methods in Biomedical Engineering (Sp) Application of mathematical techniques and numerical methods for analyzing biological data and solving biological problems. The emphasis will be on computer simulation and mathematical modeling applications in biomedical engineering. Lecture 3 hours per week. Students may not earn credit for both BENG 5273 and BENG 4223.

Prerequisite: MATH 3404. 

BENG5283 Electronic Response of Biological Tissues (Irregular) Understanding the electric and magnetic- response of biological tissues with particular reference to neural and cardiovascular systems. Passive and active forms of electric signals in cell communication. We will develop the central electrical principles that arise when an electric current channel to the organ, building on those that are common to many electrically active cells in the body. Analysis of Nernst equation. Goldman equation, linear cable theory, and Hodgkin-Huxley Model of action potential generation and propagation. High frequency response of tissues to microwave excitation, di- electric models for tissue behavior, Debye, Cole-Cole models. Role of bound and free water on tissue properties. Magnetic resonance imaging response to and measurement of tissue response. Applications to Electroradiography and Electroen- cephalography. Microwave Medical Imaging, RF Ablation will be discussed. Students may not receive credit for both BENG 4283 and BENG 5283. Prerequisites: MATH 3404, ELEG 3703 or PHYS 3414, BIOL 2533 or equivalent (Same as MEEG 5283).

BENG5613 Simulation Modeling of Biological Systems (Irregular) Application of computer modeling and simulation of discrete-event and continuous-time systems to problems in biological and agricultural engineering. Philosophy and ethics of representing complex processes in simplified form. Deterministic and stochastic modeling of complex systems, algorithm development, application limits, and simulation interpretation. Emphasis on validation and testing of biological systems models for the purposes of system optimization, resource allocation, real-time control and/or conceptual understanding. Prerequisite: AGST 4023 or BENG 4283 (Same as MEEG 5613).

BENG5703 Design and Analysis of Experiments for Engineering Research (Irregular) Principles of planning and design of experiments for engineering research. Propagation of experimental error. Improving precision of experiments. Analysis of experimental data for optimal design and control of engineering systems using computer techniques. Students must have an introductory background in statistics. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component.

BENG5723 Food Safety Engineering (Even years, Fa) Principles of engineering methods applied to food and sanitation. topics include: food safety and security. Discussion of thermal, chemical and electrical pasteurization or sterilization in food processing. Demonstration of monitoring and detecting tech- niques for food safety, including use of software and lab component. Lecture 3 hours per week. Prerequisite: BENG 4103 and FDSG 4124 or equivalent.

BENG5733 Advanced Biotechnology Engineering (Even years, Fa) This course is designed to familiarize students with the fundamental tools and techniques of modern biotechnology applications. Topics include applied enzyme, metabolic engineering, molecular genetics and control, and bioinformatics and nanobiotechnology in addition to classical applied enzyme and cell-growth kinetics and advanced bio- actor design. Prerequisite: BENG 3733 or CHEG 5631.

BENG5743 Biotechnology Engineering (Fa) Advanced topics in applied enzyme engineering related to bioprocess/biochemical engineering to microbiological and bioprocess engineering. Bioprocess engineering engineering is discussed, as well as emerging principles in the design of biologically based microbial and enzyme production systems. Application areas such as biofuels, and fine and bulk chemical production. Lecture 2 hours, laboratory 3 hours per week. Students may not earn credit for both BENG 5743 and BENG 4703. Prereq- uisite: Graduate standing. Corequisite: Lab component. 

BENG5801 Graduate Seminar (Irregular) Reports pre- sented by graduate students on topics dealing with current research in agricultural engineering. Prerequisite: Graduate standing.

BENG5903 Water Quality Modeling and Management (Irregular) Processes and methodologies associated with surface water quality modeling, investigation of management processes based on modeling results. Process for assessing nutrient (rarely, state-wide spread) effects of pollutants on biota and aquatic ecosystems modeling) to complex GIS-based dynamic models. Develop calibration and validation statistics for model applications. Students will develop a semester project that integrates their skills and knowledge of cali- brating, and validating water quality models for environmental applications. Prerequisite: BENG 5613.

BENG5913 Bioremediation and Biodegradation (Irregular) Environmentally-relevant biotechnology using organisms to remove or metabolize environmental pollutants through microbial degradation and phytoremediation of recalcitrant compounds. Benefits as well as potential costs of environmental applications of biotechnology will be evaluated. Prerequisite: BENG 5923. 

BENG5923 Nonpoint Source Pollution Control and Modeling (Fa) Control of hydrologic, meteorologic, and land use factors on nonpoint source (NPS) pollution in urban and agricultural watersheds. Application of computer models to develop NPS pollution control plans and total maximum daily loads (TMDLs), with consideration of model calibration, validation, and uncertainty analysis. Prerequisite: MATH 3404 or CENG 2133.

BENG5933 Environmental and Ecological Risk Assessment (Sp) Process and methodologies associ- ated with human-environmental and ecological risk assess- ment. Environmental risk assessment approaches focused on receptors as endpoints, addressing predominantly abiotic processes. Ecological risk assessments based on non-human receptors as endpoints. Approach using hazard definition,
effects assessment, risk estimation, and risk management. Application of methods to student projects to gain experience in developing and quantifying uncertainty associated with human perturbation, management and restoration of environmental and ecological processes.

BENG5943 Watershed Eco-Hydrology (Sp, Fa) Engineering principles of assessment and management of surface water flow and hydrologic processes within eco-systems. Includes frequency analysis of rainfall, infiltration, runoff, evapotranspiration. Use of GIS/mathematical models to quantify hydrologic processes at the watershed-landscape scale. Design/implementation of best management practices and ecological engineering principles and processes for advanced ecological services. Lecture 3 hours per week. Pre- or Corequisite: BENG 5943 and BENG 4903. Prerequisites: CVEG 3213 or equivalent.

BENG5935 Ecological Engineering Design (Fa) Design of low impact development techniques to enhance ecological services, reduce peak runoff, and capture sediments, nutrients and other pollutants resulting from urban development. Techniques may include: bio-swales, retention basins, filter strips. Design of sustainable ecological processes for the treatment and utilization of wastes/residues. Techniques may include: direct land application to soils/strips, composting systems, lagoons and constructed wetlands. Design goals include optimization of ecological services to maintain designated uses of land, water and air, including enhancement of habitat for wildlife and recreation, and the discovery of economically viable methods for co-existence of urban and agricultural land uses. Lecture 3 hours per week. Students may receive credit for both BENG 5943 and BENG 4923. Prerequisite: BENG 4903 or equivalent.

BENC600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

BENG700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.
processes studying models of growth, interspecific interactions, and adaptation to physical and biotic environments. Corequisite: BIOL 5511L. Prerequisite: BIOL 3864.

BIOL5523 Plant Ecology (Even years, Fa) To develop understanding of important ecological concepts through study of dynamics relationships among plants and their environment, with emphasis on the theories of community processes, and the system develops. Prerequisite: BIOL 2533

BIOL480V Special Problems (Sp, Su, Fa) (1-6) For advanced students with adequate preparation. Prerequisite: BIOL 4814 Laboratory Course on immune-diagnostic laboratory techniques. Lecture and laboratory 6 hours per week. Corequisite: Lab component. Corequisite: Lab component. Prerequisite: CHEM 1123 and CHEM 1121L or equivalent, and BIOL 3863 or instructor's permission.

BIOL4833 Animal Behavior (Odd years, Fa) Organization, regulation, and phylogeny of animal behavior, emphasizing vertebrates. Lecture, laboratory, and field work. Corequisite: BIOL 3043.

BIOL4844 Community and Ecosystem Ecology (Odd years, Fa) Survey of theoretical and applied aspects of community processes studying structure, trophic dynamics, community interactions, and major community types. Corequisite: Lab component. Prerequisite: BIOL 3863.

BIOL4845 Field Ecology (Sp, Su) (1-3) Project oriented approach employing current field and laboratory techniques, experimental design, and data analysis. Field trip is required.

BIOL4863 Analysis of Animal Populations (Even years, Sp) Basic principles of design and analysis for population studies of any taxon. Students will be instructed in the use of the latest software for estimating population parameters. Focus will be on both concepts and applications. Management applications of estimated parameters will be discussed. Lecture 2 hours, laboratory 3 hours per week. Prerequisite: BIOL 3863.

BIOL490V Special Topics in Microbiology (Irregular) (1-5) Consideration of new areas of microbiological knowledge not covered adequately in textbook or in other courses. Prerequisite: 8 hours of biological sciences. May be repeated for up to 6 hours of degree credit. BIOL4951 Genetic Mechanisms in Medical Research (Odd years, Sp) Molecular mechanisms underlying the immune system. Reading of the primary literature on disease states involving molecular and genetic events controlling immune reactions. Lecture: 2 hours per week. Prerequisites: BIOL 3864 and BIOL 5313.

BIOL5001 Seminar in Biology (Sp, Fa) Discussion of selected topics and review of current literature in any area of the biological sciences. (Same as CEEM 5911) May be repeated for up to 6 hours of degree credit.

BIOL5003 Laboratory in Prakoryocyte Biology (Sp) Lecture techniques in prakoryocyte culture, identification, physiology, metabolism, and genetics. Laboratory 6 hours per week. Prerequisite: BIOL 2533.

BIOL5233 Genomics and Bioinformatics (Sp) Principles of molecular and computational analyses of genomes. Prerequisite: BIOL 4133 or BIOL 5313.

BIOL5262 Development (Odd years, Sp) Morphology, classification, life history, population dynamics, and natural history of fishes and fish-like vertebrates. Lecture 3 hours, laboratory 3 per week. Corequisite: Lab component. Prerequisite: BIOL 2533 and BIOL 2323 or graduate standing.

BIOL5273 Cell Physiology (Fa) Principles of molecular and computational analyses of genomes. Prerequisite: BIOL 4133 or BIOL 5313.

BIOL5343 Advanced Immunology (Fa) Aspects of innate, cell-mediated, and humoral immunity in mammalian and avian species. Molecular mechanisms underlying the functions of the immune system. A course in Basic Immunology prior to enrollment in Advanced Immunology is recommended but not required. Lecture 3 hours per week. (Same as PSCI 5343)

BIOL5352L Immunology in the Laboratory (Sp) Laboratory course on immune-diagnostic laboratory techniques. The use of antibodies as a research tool. Includes cell isolation and characterization procedures, immunochemistry, flow cytometry, ELISA and cell culture assay systems. Laboratory 6 hours per week. Prerequisite: PSCI 5353L.

BIOL5353 Ecological Genetics (Odd years, Fa) Analysis of the genetics of natural and laboratory populations with emphasis on the ecological bases of evolutionary change. Prerequisite: BIOL 3233 and BIOL 3231L and MATH 2554 and STAT 2032 or equivalent.

BIOL5359 Research in Genetics (Sp, Su, Fa) (1-6) May be repeated for up to 18 hours of degree credit. BIOL5404 Comparative Botany (Odd years, Fa) A comparative approach to organisms classically considered to be plants with emphasis on morphology, life history, development, and phylogeny. Three lecture hours, 4 hours lab per week. Prerequisite: graduate standing.

BIOL5423 Human Evolutionary Anatomy (Irregular) Paleobiologists reconstitute past lifeways and systematic relationships of our ancestors using comparative studies of body morphology and associated soft tissues. This course surveys methods and theories used to infer function and phylogeny, and details relevant aspects of the anatomy of humans, living great apes, and fossil human ancestors. Prerequisite: ANTH 1013 and BIOL 1543. (Same as ANTH 5423)

BIOL5433 Principles of Evolution (Even years, Fa) Advanced survey of the mechanisms of evolutionary change with special emphasis on advances since the Modern Synthesis. Historical, theoretical, and population genetics approaches are discussed. Recommended: BIOL 3023 and BIOL 3231L and BIL 3861L. Prerequisite: BIOL 3323 and BIOL 3861.

BIOL5463 Physiological Ecology (Odd years, Sp) Interactions between environment, physiology, and properties of individuals and populations on both evolutionary and ecological scales. Prerequisite: BIOL 3231L and BIOL 3233. Corequisite: BIOL 5511L. Prerequisite: BIOL 3864.

BIOL5513 Population Ecology (Sp) Survey of theoretical and applied aspects of populations processes stressing models of growth, interspecific interactions, and adaptation to physical and biotic environments. Corequisite: BIOL 5511L. Prerequisite: BIOL 3864.

BIOL5551 Population Ecology Laboratory (Even years, Fa) Demonstration of the models and concepts from BIOL 5513. Pre- or Corequisite: BIOL 5513.

BIOL5553 Comparative Botany (Odd years, Fa) Survey of theoretical and applied aspects of populations processes stressing models of growth, interspecific interactions, and adaptation to physical and biotic environments. Corequisite: BIOL 5511L. Prerequisite: BIOL 3864.

BIOL5554 Comparative Vertebrate Embryology (Fa) Comparative study of the embryology of selected vertebrate types through the mammal with special emphasis on humans. Lecture 2, laboratory 6 hours per week. Corequisite: Lab component.

BIOL558V Research in Cell Biology (Sp, Fa) (1-6) May be repeated for up to 24 hours of degree credit.

BIOL5703 Mechanisms of Pathogenesis (Fa) A survey of events causing human disease at the molecular, cellular and genetic levels. Seeks to develop an appreciation that both the tricks pathogens use and the body’s own defenses contribute to pathology.

BIOL5713 Basic Immunology (Sp) A general overview of immunity with emphasis on the underlying cellular, molecular, and genetic events. Reading of the primary literature on disease states involving the immune system.

BIOL5723 Fish Biology (Odd years, Sp) Morphol-

**Course Descriptions**

**Business Law (BLAW)**

BLAW3033 Commercial Law (Sp, Fa) A study of the laws applicable to commercial transactions. Topics covered include the common law of contracts, Articles Two (Sales) and Three (Commercial Paper) of the Uniform Commercial Code, secured transactions, suretyship, and bankruptcy.

Prerequisite: WCOB 1012.

**Career and Technical Education (CATE)**

CATE1001 Practicum in Career & Technical Education (Sp, Fa) This practicum is a requirement for entry into the Career & Technical Teacher preparation program.

Students will be involved in documented experiences with children for a minimum of 60 hours with at least 20 of them being in career & technical education classrooms at three schools with diverse populations.

CATE201V Work Experience II (Sp, Su, Fa) (1-6) Job rating skills for work experience, mathematics for specific vocations, job skills, and related information for intermediate jobs in a specific vocation.

CATE202V Work Experience III (Sp, Su, Fa) (1-6) Personality factors, safety judgments, vocabulary for the occupation, job skills, and related information for advanced jobs in a specific vocation.

CATE203V Work Experience IV (Sp, Su, Fa) (1-6) Advanced mathematical skills, communication skills for a specific vocation, evaluation in business and industry, job skills, and related information for the professional level.

CATE204V Work Experience V (Sp, Su, Fa) (1-6) Human relations, economies of business and industry, public relations, job skills, and related information at the supervisory level.

CATE380V Supervised Work Experience (Sp, Su, Fa) (1-9) Supervision in business and industry under guidance. Designed for students who desire or need directed occupational experience. May be repeated for up to 6 hours of degree credit.

CATE390V Competency Based Teacher Development: Program Organization (Sp, Su, Fa) (3-12) Development of competencies related to the methodology of instructional planning, execution, and evaluation. Provided by PBTE modules and University resource person. Enroll before CATE 391V and 392V. Required: Employed in service vocational-technical education field based instructor. May be repeated for up to 12 hours of degree credit.

CATE391V Competency Based Teacher Development - Teaching Adults (Sp, Su, Fa) (3-12) Development of competencies related to the methodology of instructional guidance, contemporary instructional techniques, and student vocational organizations. Provided by PBTE modules and University resource person. Enroll before CATE 391V and 392V. Required: Employed in service vocational-technical education field based instructor. May be repeated for up to 12 hours of degree credit.

CATE392V Competency Based Teacher Development - Teaching Youth (Sp, Su, Fa) (3-12) Development of competencies related to program planning, development, evaluation; school community relations; and professional development. Provided by CBTD modules and University resource person. Prerequisite: Completion of 12 credit hours of CATE 391V and 392V and service vocational-technical education field based instructor. May be repeated for up to 24 hours of degree credit.

CATE4033 Business Communications in Consumer Sciences and Technology Education (Sp, Su, Fa) A minimum of 10 weeks will be spent in an off-campus school, at which time the student will have an opportunity under supervision to observe, to teach, and to participate in other activities involving the school and the community.

Prerequisite: CATE 406V.

CATE4051 Seminar Teaching Internship (Sp) Site-based field experiences are integrated with the course content to provide continuity between theory and practice. Classroom management, ethics and diversity are emphasized. Corequisite: VOED 406V.

CATE406V Teahing Internship (Sp) A minimum of 15 weeks will be spent in an off-campus school, at which time the student will have an opportunity under supervision to observe, to teach and to participate in other activities involving the school and the community. Prerequisite: Senior status. CATE 4033, CATE 4013, CATE 4023, CATE 4033, CIED 3023 and CIED 3033.

CATE4101 Understanding Student Affairs (Fa) This course provides students an opportunity to gain knowledge in the theory and practical application of student affairs.

An emphasis is placed on leadership development, problem solving, and career exploration in student affairs.

CATE4122 Leadership Development (Sp) Studying and developing leadership in career and technical education using currently accepted principles of leadership applied to workforce education settings.

CATE4303 Business Communications in Student Leadership (Sp, Su, Fa) (3-12) Selection, design, and evaluation of written and oral communication in the business/education field. Specific attention given to communication and organizations, using words effectively, communicating through letters and memos, communicating through reports, oral communication, and communicating today and tomorrow.

CATE4803 Problems in Career & Technical Education (Sp, Su, Fa) (1-3) A consideration of special problems relating to technical education and career planning. May be repeated for up to 3 hours of degree credit.

CATE5004 Directed Field Experience (Sp, Su, Fa) A minimum of 8 weeks will be spent in an off-campus school, at which time the student will have an opportunity to observe 6 classroom teachers and to teach under the guidance of a University resource person. Prerequisites: Cohort year status.

CATE5013 Teaching Strategies (Fa) This course is designed to offer a variety of ideas and experiences concerning methods of teaching, planning and presenting instruction. CATE 406V. Required: Employed in service vocational-technical education field based instructor. May be repeated for up to 12 hours of degree credit.

CATE5043 Business Communication in Consumer Sciences and Technology Education (Sp, Su, Fa) A minimum of 10 weeks will be spent in an off-campus school, at which time the student will have an opportunity under supervision to observe, to teach, and to participate in other activities involving the school and the community. Prerequisite: Cohort year status.

CATE5053 Assessment/Program Evaluation (Fa) An introduction to constructing, evaluating, and interpreting tests; descriptive and inferential statistics; state competency testing; and guidelines for state program evaluations. Prerequisite: Graduate Status.

CATE5103 Teaching Strategies in Career & Technical Education Methods and techniques in developing consumer sciences and technology education courses and evaluating programs in career and technical education.

CATE5113 Laboratory Management in Career & Technical Education Selection, design, and evaluation of laboratory experiences in career and technical education.

CATE5123 Current Design and Evaluation in Career & Technical Education (Sp, Su, Fa) Methods and techniques in developing, implementing, and evaluating programs in career and technical education.

CATE5191 Applied Research (Sp, Su, Fa) Interpretation and evaluation of research in education for classroom utilization.

CATE5453 Career Orientation Programs (Su) Provides a survey of types and sources of occupational information and methods of providing occupational-oriented experiences. Designed for students in career orientation and is 1 of 2 required courses for vocational career orientation.

CATE5463 Applications in Career Orientation
Communication Disorders (CDIS)

CDIS2253 Introduction to Communicative Disorders (Sp, Fa) An introductory course which surveys the professional interests of speech-language pathology and audiology, stressing the relationship to the general recognition and classification of disorders of speech, language, and hearing, and general trends in rehabilitation. Consideration given to the classroom teacher's involvement in communication disorders.

CDIS3103 Introduction to Audiology (Fa) Introduction to the basic concepts for administering and interpreting hearing tests, including the anatomy and physiology of the audiological system, disorders of the ear, and techniques for administering and interpreting basic pure tone threshold tests.

CDIS3124 Normal Phonology and Articulatory Process (Fa) Analysis of the English speech sounds as a basis for speech improvement: physiological positions and movements; acoustic qualities and transcription in the international phonetic alphabet. Corequisite: Lab component.

CDIS3203 Articulation Disorders (Sp) A study of the definition, pathology, and treatment procedures of problems of articulation. Prerequisite: CDIS 3124 and CDIS 3213.

CDIS3213 Anatomy of Physiology of the Speech and Hearing Mechanisms (Sp) Structure and function of the organic mechanisms responsible for speech, language, and audition.

CDIS3224 Language Development in Children (Sp) Study of the development of language behavior and of the typical development of speech and language functions for communicative purposes, with primary emphasis on the preschool and early school-age child. Corequisite: Lab component.

CDIS3233 Introduction to Clinical Practice (Sp, Fa) An introduction to the various aspects of clinical operations including technical and interpersonal relationship skills necessary for case management and a survey of professional standards.

CDIS3923H Honors Colloquium (Irregular) Treats a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in speech or dramatic art).

CDIS399VH Honors Course (Irregular) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

CDIS4001 Clinical Practicum Undergrad (Sp, Fa) Entry-level training in speech-language clinical practicum activities. This course is taken for satisfactory or unsatisfactory credit. Prerequisite: CDIS 2224 and CDIS 3203 and CDIS 3223 and CDIS 3234 plus satisfactory completion of specific program requirements for admission to clinical practice.

CDIS4103 Sign Language and Deafness (Sp, Su) An introduction to the American Sign Language system of the Deaf Community that uses it. This class will study expressive and sign language skills using ASL vocabulary, structure and grammar. The Deaf Community will be studied through videotapes and readings. Issues in Deaf Education will also be introduced.

CDIS4133 Introduction to Aural Rehabilitation (Sp) Study of the technique used in the rehabilitation of speech and hearing impairments, including the role of amplification, auditory training, and speech reading in rehabilitation. Prerequisite: CDIS 3103.

CDIS4183 Clinical Assessment of Speech and Language Disorders (Fa) Study of the basic diagnostic procedures used in speech-language pathology. Emphasis is placed on the clinical processes of assessment, including criteria for test selection, techniques in test administration, and interpretation of test results. Prerequisite: Prior course work in CDIS.

CDIS4213 Introduction to Speech and Hearing Science (Sp) Study of the acoustic structure of oral speech and the auditory skills underlying speech perception. Prerequisite: CDIS 3203, CDIS 3213, CDIS 3124 and its lab component.

CDIS4223 Language Disorders in Children (Sp) Study of disorders of language acquisition and usage in children and adolescents, with emphasis upon the nature, assessment, and treatment of such disorders. Prerequisite: CDIS 3223.

CDIS4253 Neurological Bases of Communication (Fa) Study of the structures and functions of the central and peripheral nervous systems as they relate to human speech, language, and cognition. Prerequisite: CDIS 3213.

CDIS4263 Advanced Audiology (Fa) Study of the basic techniques used in audiological assessment of children and adults, including pure tone audiometry, speech audiometry, and special tests of hearing function. Prerequisite: CDIS 3103.

CDIS4273 Communication Behavior and Aging (Fa) Study of the effects upon communication of normal aspects of the aging process, from early adulthood through to the lifespan. Changes in speech, language, and hearing functioning are identified; common alterations in communicative disorders commonly associated with advanced age are discussed.

CDIS490V Special Problems (Sp, Su, Fa) (1-3) Prerequisite: Advanced standing. May be repeated for up to 3 hours of degree credit.

CDIS5102 Research Methodology in Communication Disorders (Su) An examination of methods of research in speech-language pathology and audiology and of the use of bibliographic tools. Focuses on purposes and problems of various forms of communication disorders research, procedures and instruments employed, and reporting of research. Prerequisite: Graduate standing.

CDIS5112 Seminar in Early Intervention (Fa) Study of a family-centered, transdisciplinary approach to early intervention with infants and toddlers at-risk for communicative disorders. Topics include early communication development, service delivery in a family context, coordination with other disciplines, and legislation mandating services. Prerequisite: CDIS 3223 or equivalent, and graduate standing.

CDIS5121 Feeding and Swallowing Disorders Lab (Sp) Observation and interpretation of techniques used for assessment and remediation of feeding and swallowing disorders in children and adults. Corequisite: CDIS 5122. Prerequisite: CDIS 3213 and graduate standing.

CDIS5122 Feeding and Swallowing Disorders (Sp) Study of the etiology, assessment, and remediation of feeding and swallowing disorders in children and adults. Prerequisite: CDIS 3213 or equivalent, and graduate standing.

CDIS5133 Dysphagia Seminar in Early Intervention (Fa) Study of discourse behaviors and discourse analysis procedures appropriate for communicatively disordered children and adults, along with review of management approaches associated with impaired discourse performance. Prerequisite: Previous course work in language process and disorders, and graduate standing.

CDIS5143 Cognitive-Communication Development and Disorders (Fa) Study of normal cognitive development, the role of communication in this development, and shifts that may occur in conjunction with various speech, language and/or hearing disorders. Prerequisite: CDIS 3233.

CDIS5163 Seminar in Language Topics (Sp, Su) Study of selected topics in normal and disordered language acquisition and/or language use. Implications of current research are reviewed and applied to evaluation and management of oral language impairment(s). Prerequisite: Graduate standing.

CDIS5183 Seminar in Problems of Oral Communication (Sp, Su) Investigation of research in selected problems of oral communication; recent developments in speech-language pathology and audiology; individual problems for investigation. Prerequisite: Graduate standing.

CDIS5214 Voice and Resonance Disorders (Sp) Study of the voice, including the anatomy, physiology, mechanisms, pathologies, diagnosis, and intervention strategies. Prerequisite: Graduate standing.

CDIS5222 Fluency Disorders (Sp) Speech fluency, including theoretical etiological assumptions and management consideration. Prerequisite: Graduate standing.

CDIS5223 Seminar in Misarticulation (Sp) Emphasis on selected theoretical and practical issues in speech-articulation-related disorders. Prerequisite: Graduate standing.

CDIS5244 Language Disorders in Adults (Sp) Communication disorders. Topics selected to be relevant to practice of speech-language pathology and other disciplines. Prerequisite: Graduate standing.

CDIS5253 Motor Speech Disorders (Sp) Study of group motor speech disorders related to damage to central or peripheral nervous system motor centers and pathways. Cerebral palsy, adult dysarthria, apraxia, and dysphasia are emphasized. Basic theoretical and treatment considerations are addressed. Prerequisite: CDIS 4253 or equivalent, and graduate standing.

CDIS5262 Seminar in Hearing Disorders (Su) Study of selected topics related to hearing assessment and disorders. Topics selected to be relevant to practice of speech-language pathology and other disciplines. Prerequisite: Graduate standing.

CDIS5273 Language, Learning and Literacy (Su) An examination of language-based literacy skills, including consideration of development, disorders, assessment and intervention.

CDIS5293 Augmentative and Alternative Communication (Fa) Approaches to communication management with the severely and profoundly hearing impaired adult, with primary emphasis on augmentative and alternative communication assessment and intervention. Prerequisite: Graduate standing.

CDIS5381 Diagnostic Practicum (Sp) Practicum activities in speech-language assessment. Prerequisite: Graduate standing.

CDIS5391 Clinical Practicum: Hearing Disorders (Sp, Su, Fa) Practicum in audiology.

CDIS548V Off-Campus Practicum: Public School Site (Sp, Su, Fa) (1-6) Practicum activities in speech-language disorders in a public school setting. Prerequisite: Graduate standing.

CDIS558V Internship: Clinical Site (Sp, Su, Fa) (3-6) Field placement in approved clinical setting for clock hours in speech-language pathology assessment and treatment. Students in the master's program must enroll in a minimum of 3 credit hours of CDIS 558V or CDIS 578V during their last semester of graduate studies. Prerequisite: Graduate standing: completion of other required practicum courses. May be repeated for up to 6 hours of degree credit.

CDIS558V Off-Campus Practicum: Clinical Site (Sp, Su, Fa) (1-6) Practicum activities in speech-language disorders in an off-campus clinical site. Prerequisite: Graduate standing: completion of at least 2 semesters of CDIS 528V.

CDIS578V Internship: Public School Site (Sp, Su, Fa) (3-6) Field placement in approved public school setting for clock hours in speech-language pathology assessment and treatment. Students in the Master's program must enroll in a minimum of 3 credit hours of CDIS 578V or CDIS 558V during their last semester of graduate studies. Prerequisite: Graduate standing: completion of other required practicum courses.

CDIS590V Special Problems (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

CDIS599V Seminar in Professional Issues (Sp, Su, Fa) Corequisite: Graduate standing. (1-3) Selected topics in professional issues in speech-language pathology and audiology.

CDIS600V Master's Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

CDIS699V Seminar in Communication Sciences and Disorders (Irregular) (1-6) Discussion of pertinent topics and issues in the discipline of communication sciences and disorders. Prerequisite: Advanced graduate standing. May be repeated for up to 18 hours of degree credit.

Cell & Molecular Biology (CEMB)

CEMB590V Special Topics in Cell and Molecular Biology (Sp, Su, Fa) (1-6) Consideration of new areas in Cell and Molecular Biology not yet treated adequately in textbooks or in other courses. This course may be repeated,
provided subject matter is different for a maximum of 6 hours of credit. May be repeated for up to 6 hours of degree credit.

CHEG3143H Honors Chemical Engineering Design I (Sp, Fa) Principles of cost estimation, profitability, economic analysis and engineering economics as practiced in the chemical process industries. Special emphasis on the solution of problems involving the combination of engineering principles and economics. Prerequisite or Corequisite: CHEG 4163 and CHEG 3333.

CHEG4443H Chemical Engineering Design II (Sp, Fa) Responsibility for decision making is placed on the students in the solution of a comprehensive, open ended problem based on an industrial process. Both formal oral and formal written presentation of results are required. Corequisite: Drill component. Prerequisite: CHEG 4413 and CHEG 4163.

CHEG4423 Automatic Process Control (Sp) Application of control principles to the design and control of commercial processes to the decorrelation of transient phenomena of interest to process engineers. Modes of control and principles of feedback control are introduced with applications to process control engineering problems. Prerequisite: CHEG 3143 and CHEG 3333.

CHEG4444 Chemical Engineering Desisgn II (Sp, Fa) Application of chemical engineering principles to the study of safety, health, and loss prevention. Fires and explosions, hygiene, toxicology, chemical and biological risk assessment and environmental monitoring. Prerequisite: CHEG 3333.

CHEG5113 Transport Processes I (Sp) Continuation of CHEG 3113. Corequisite: CHEG 4163 and CHEG 3333.

CHEG5123 Transport Processes II (Fa) Continuation of CHEG 5113.

CHEG5203 Preparation of Research Proposals (Sp, Fa) Preparation of written technical reports and oral briefings. Corequisite: Drill component. Prerequisite: CHEG 2133 (or equivalent) and MATH 3404.

CHEG5313 Planetary Atmospheres (IR) Origins of planetary atmospheres, structures of atmospheres, climate evolution, dynamics of atmospheres, levels in the atmosphere, the upper atmosphere, escape of atmospheres, and comparative planetology of atmospheres. (Same as SPA 5313)

CHEG5333 Advanced Thermodynamics (Fa) Methods of statistical thermodynamics, the correlation of classical and statistical thermodynamics, and the theory of thermodynamics of continuous systems (non-equilibrium thermodynamics). Prerequisite: CHEG 3333.

CHEG5353 Advanced Separations (Sp) Phase equilibrium in non-ideal and multicomponent systems, digital and other methods of computation are included to cover the fundamentals of distillation, absorption, and extraction. Prerequisite: CHEG 4163.

CHEG5513 Biochemical Engineering Fundamentals (Sp) An introduction to bioprocessing with an emphasis on modern biochemical engineering techniques and biotechnology. Topics include: basic metabolism (procaroye and eucaryote), biochemical pathways, enzyme kinetics (including immobilized processes), separation processes (e.g., chromatography) and recombinant DNA methods. Material is covered within the context of mathematical descriptions (calculus, linear algebra) of biochemical phenomenon. Prerequisite: CHEG 3142.

CHEG5532 Bioprocessing (Fa) An introduction to the design, development, and scale-up of bioprocesses for the production of chemicals by fermentation. Major topics include fermentation kinetics, reactor design, process scale-up, and product recovery. Prerequisite: CHEG 4163.

CHEG5733 Polymer Theory and Practice (Fa) Theories and methods for converting monomers into polymers are presented. Topics include principles of polymer chemistry, polymer processing, and fabrication. Prerequisite: CHEM 3603 or CHEM 3613.

CHEG5753 Air Pollution (Irregular) Fundamentals of air pollution causes, effects, and measurements, as well as pollution abatement methods and air pollution problems. Prerequisite: Grade standing. (Same as OENV 5753)

CHEG5801 Graduate Seminar (Sp, Fa) Oral presentations are given by master’s candidates on a variety of chemical engineering subjects with special emphasis on new developments. Prerequisite: Graduate standing.

CHEG588V Special Problems (Sp, Su, Fa) Opportunity for individual study of an advanced chemical engineering problem not sufficiently comprehensive to be a thesis. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

CHEG600V Master’s Thesis (Sp, Fa) Prerequisite: Graduate standing.

CHEG6123 Transport Processes II (Fa) Continuation of CHEG 5113.

CHEG6203 Preparation of Research Proposals (Sp, Fa) Preparation of written technical reports and oral briefings. Corequisite: Drill component. Prerequisite: CHEG 2133 (or equivalent) and MATH 3404.

CHEG688V Special Topics in Chemical Engineering (Sp, Su, Fa) Prerequisite: CHEG 5113. Special topics in chemical engineering not covered in other courses. Prerequisite: Doctoral students only. May be repeated for up to 3 hours of degree credit.

CHEG700V Doctoral Dissertation (Sp, Su, Fa) Prerequisite: Candidacy.
CHEM1121L University Chemistry II Laboratory (Sp, Su) Laboratory exercises illustrating qualitative concepts and laboratory techniques in chemistry. Meets 3 hours per week for 1 hour credit. Pre- or Corequisite: CHEM 1103.

CHEM1103 University Chemistry I (Su, Fa) Survey of the basic concepts, principles, and applications of chemistry. Emphasis is on the development of problem-solving skills and the understanding of the role of chemistry in society. Chemical problems of ecological, environmental, and socio-economic concern. Designed for non-science majors. Lecture 3 hours per week. Pre- or Corequisite: CHEM 1051L.

CHEM1071L Fundamentals of Chemistry Laboratory (Su, Fa) Laboratory exercises in principles and practices of laboratory chemistry. Meets 2 hours per week. Pre- or Corequisite: CHEM 1074.

CHEM1074 Fundamentals of Chemistry (Su, Fa) Fundamental principles of chemistry for students majoring in Home Economics or Nursing. Lecture 4 hours, recitation 1 hour per week. Pre- or Corequisite: CHEM 1071L. Corequisite: Drill component.

CHEM1101L University Chemistry I Laboratory (Su, Fa) Laboratory exercises illustrating qualitative concepts and laboratory techniques in chemistry. Meets 3 hours per week for 1 hour credit. Pre- or Corequisite: CHEM 1103.

CHEM1103 Chemistry I (Su, Fa) Survey of the basic concepts, principles, and applications of chemistry. Emphasis is on the development of problem-solving skills and the understanding of the role of chemistry in society. Chemical problems of ecological, environmental, and socio-economic concern. Designed for non-science majors. Lecture 3 hours per week. Pre- or Corequisite: CHEM 1074.

CHEM1074 Fundamentals of Chemistry (Su, Fa) Fundamental principles of chemistry for students majoring in Home Economics or Nursing. Lecture 4 hours, recitation 1 hour per week. Pre- or Corequisite: CHEM 1071L. Corequisite: Drill component.

CHEM1101L University Chemistry I Laboratory (Su, Fa) Laboratory exercises illustrating qualitative concepts and laboratory techniques in chemistry. Meets 3 hours per week for 1 hour credit. Pre- or Corequisite: CHEM 1103.

CHEM1103 University Chemistry I (Su, Fa) Survey of the basic concepts, principles, and applications of chemistry. Emphasis is on the development of problem-solving skills and the understanding of the role of chemistry in society. Chemical problems of ecological, environmental, and socio-economic concern. Designed for non-science majors. Lecture 3 hours per week. Pre- or Corequisite: CHEM 1074.

CHEM1074 Fundamentals of Chemistry (Su, Fa) Fundamental principles of chemistry for students majoring in Home Economics or Nursing. Lecture 4 hours, recitation 1 hour per week. Pre- or Corequisite: CHEM 1071L. Corequisite: Drill component.

CHEM1101L University Chemistry I Laboratory (Su, Fa) Laboratory exercises illustrating qualitative concepts and laboratory techniques in chemistry. Meets 3 hours per week for 1 hour credit. Pre- or Corequisite: CHEM 1103.

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CHEM1074 Fundamentals of Chemistry (Su, Fa) Fundamental principles of chemistry for students majoring in Home Economics or Nursing. Lecture 4 hours, recitation 1 hour per week. Pre- or Corequisite: CHEM 1071L. Corequisite: Drill component.

CHEM1101L University Chemistry I Laboratory (Su, Fa) Laboratory exercises illustrating qualitative concepts and laboratory techniques in chemistry. Meets 3 hours per week for 1 hour credit. Pre- or Corequisite: CHEM 1103.
CHEM5143 Advanced Inorganic Chemistry II (Irregular) Chemistry of metallic and non-metallic elements, structure, bonding and properties, and classification of reactions. Emphasis on recent developments. Prerequisite: CHEM 4123.

CHEM5153 Structural Chemistry (Irregular) Determination of molecular structure by spectroscopy. Prereq: CHEM 3611L and CHEM 3611L.

CHEM5233 Chemical Instrumentation (Odd years, Sp) Use and application of operational amplifiers to chemical instrumentation; digital electronic microprocessor interfacing; software development and real-time data acquisition. Prereq: CHEM 3113 and CHEM 3213.

CHEM5253 Chemical Separations (Even years, Fa) Modern separation methods including liquid chromatography (adsorption, liquid-liquid partition, ion exchange, exclusion), and gas chromatography. Theory and instrumentation is discussed with emphasis on practical aspects of separation science. Prerequisite: CHEM 4213.

CHEM5243 Electrochemical Methods of Analysis (Even years, Sp) Topics will include: diffusion, electron transfer kinetics, and reversible and irreversible electrode processes; followed by a discussion of chronocoulometry, chronocoulometry, polarography, voltammetry and chronopotentiometry. Prereq: CHEM 4213 and MATH 3254.

CHEM5253 Spectroscopic Methods of Analysis (Odd years, Fa) Principles and methods of modern spectroscopic analysis. Optics and instrumentation necessary for specified techniques. Topics include: molecular absorption and emission techniques in the ultraviolet, visible, and infrared spectral regions. Prerequisite: CHEM 4213.

CHEM5883 Nuclear Chemistry (Odd years, Fa) Nuclear structure and properties, natural and artificial radioactivity, radioactive decay processes, nuclear reaction and interactions of radiation with matter. Prerequisite: CHEM 3514.

CHEM5885 Quantum Chemistry (Odd years, Sp) Laws of distribution of the chemical elements in nature, cosmic and terrestrial abundance of elements; origin and age of the earth, solar system, and the universe. Prerequisite: CHEM 414.

CHEM5453 Quantum Chemistry I (Odd years, Sp) Fundamental quantum theory: Hamiltonian formalism in classical mechanics, Schrodinger equation, operators, angular momentum, harmonic oscillator, barrier problems, rigid rotor, hydrogen atom and interaction of matter with radiation. Prerequisite: CHEM 3504. (Recommended: MATH 3404).

CHEM5453 Chemical Kinetics (Sp) Theory and applications of the principles of kinetics to reactions between substances, both in the gaseous state and in solution. Prerequisite: CHEM 3135.

CHEM5513 Biochemical Evolutionary Development (Even years, Sp) Abiotic synthesis of biomolecules on Earth, the origin of cells, genetic information, origin of life on Earth and elsewhere, evolution and diversity, ecological niches, bacteria, archaea, eukaryotic evolution, the aftermath of early childhood, organic compounds, carbon cycle, free energy, the environment, life being reshaped by the environment, molecular data and evolution. Prerequisite: CHEM 5813.

CHEM5603 Theoretical Organic Chemistry (Fa) Introduction to the theoretical interpretation of reaction mechanisms, and molecular structure of organic compounds. Application of theories of electronic structure; emphasis on recent developments. Prerequisite: CHEM 3514 and CHEM 3713 and CHEM 3712L.

CHEM5633 Organic Reactions (Fa) Determination of molecular structure by spectroscopy. Prereq: CHEM 3611L and CHEM 3611L.

CHEM5683 Bioenergetics and Biomembranes (Even years, Sp) Cellular energy metabolism, photosynthesis, light and its impact on energy transformation, biochemistry of membrane proteins, and the application of thermodynamics to biological systems. Prerequisite: CHEM 5813 and CHEM 5843.

CHINET1003 Chinese (CHIN) Chinese courses stress correct pronunciation, Aural comprehension, and spoken and reading ability, and to lead active mastery of basic grammar and limited reading ability. Prerequisite: CHIN 1003 or equivalent.

CHINET2003 Chinese (CHIN) Chinese courses stress correct pronunciation, Aural comprehension, and spoken and reading ability, and to lead active mastery of basic grammar and limited reading ability. Prerequisite: CHIN 1003 or equivalent.

CHINET3033 Conversation (Irregular) Guided conversation practice for the post-intermediate student. Prerequisite: CHIN 2013 or equivalent.

CHINET3103 Chinese Culture and Film (SP) A course based on film and readings designed to give insight into Chinese civilization and culture with special emphasis on Chinese culture and film. Prerequisite: CHIN 5013.

CIED1002 Introduction to Education (Sp, Su, Fa) Integrates psychological, sociological, and philosophical foundations of education with concurrent involvement in field experiences. Encourages prospective teachers to become reflective practitioners by emphasizing organization of school systems, planning and implementation of effective classroom environments, development of teaching styles, and new directions in education. Corequisite: CIED 1011.

CIED1011 Introduction to Education: Practicum (Sp, Su, Fa) A 30-hour field experience designed to give prospective teachers opportunities to observe and participate in a variety of school settings. Includes a variety of field-based activities to encourage personal reflection. Special focus upon organization of school systems, effective classroom environments, teaching styles, and new directions in education. Corequisite: CIED 1002.

CIED3001 Early Childhood Education Practicum (Sp, Su, Fa) This practicum course provides opportunities for students to observe and participate in the planning and guidance in preschool settings. Corequisite: CIED 3003.

CIED3003 Early Childhood Education (Sp, Su) The study of kindergarten and preschool programs: social context of early childhood, the child's environment, curriculum development, methods, and materials.

CIED3023 Survey of Exceptionalities (Sp, Su, Fa) A survey of the characteristics of students with exceptional needs. Reviews the definitions of exceptionalities, learning and behavior characteristics of individuals with exceptionalities and the legal basis for the education of persons with exceptionalities in both elementary and secondary schools. Prerequisite: CIED 1002 and CIED 1011; or MUE 2012.

CIED3033 Classroom Learning Theory (Sp, Su, Fa) A survey of the major theories of learning with special emphasis on human learning and implications for education. Prerequisite: CIED 1002 and CIED 1011; or MUE 2012; and PSYC 2003.

CIED3043 Introduction to Middle Level Principles and Methods (Fa) A comprehensive overview of the key components of middle school teaching, and research foundations to middle level education. Reflective activities and site-based field experience are integrated with course content to provide continuity between theory and practice. Portfolio and culminating project will be a primary means of course evaluation. Prerequisite: CIED 3053.

CIED3053 The Emerging Adolescent (Sp) This course is a study of the developmental characteristics (social, emotional, physical, moral, and intellectual) of early adolescents (ages 10-15 years). The implications of these changes for motivation, instruction, learning, and classroom management in the classroom are emphasized. Course has
field component. Prerequisite or Corequisite: CIED 3033. Prerequisite: CIED 1011 and CIED 1002 and PSYC 2003. CIED5042 Research, for Middle Level Teachers (Sp) This course is designed to examine theories and practice regarding literacy development and assessment grounded in the knowledge of the characteristics of the middle level learner. A ten-hour field experience is required. Corequisite: CIED 3073. Prerequisite: CIED 3043.

CIED3073 Early Adolescence Literature (Sp) A study of rationale and strategies for incorporating early ado-
lescent literature across the middle level curriculum. Includes an examination of genres and selected texts from each. Corequisite: CIED 3063. Prerequisite: CIED 3043. 
CIED1103 Children’s Literature (Fa) A survey of children’s library works, authors, and illustrations with empha-
sis on the preschool and primary grade level. Corequisite: CIED 3113. Prerequisite: PSYC 3093. 
CIED1113 Emergent and Developmental Literacy (Fa) This course focuses on theories of children’s emerging literacy and on the continuing development of literacy abilities in pre-kindergarten and early elementary years. Corequisite: CIED 3103. Prerequisite: PSYC 3033 or PSYC 3063.

CIED1203 Mathematics Methods (Sp, Su) An examination of the content of elementary mathematics courses. Special emphasis given to methods of teaching the content as well as enrichment materials.

CIED1132 Mathematics and Natural Studies (Sp, Fa) Focuses on the methodology of facilitating pre-K and elementary children’s development in language arts and social studies. Integrates the curriculum and teaching strategies in language arts and social studies.

CIED1143 Teaching Science (Sp, Fa) Study of the methods and materials in teaching science. Classroom applications of teaching strategies with analysis of teacher effectiveness are emphasized. 
CIED2063 Language Development for the Educator (Sp, Fa) Nature of speech-language development in preschool and school-aged children, including cognitive prerequisites, social contexts, and relationships between language acquisition and literacy. Language differences (dia-
lectal, bilingual) and speech-language disorders are explored. The role of the educator in facilitating language development is emphasized.

CIED4003 Elementary Seminar (Sp, Fa) This course is designed to synthesize the foundational content pre-

tised in the Bachelor of Science in Education, Elementary Education major. It is recommended for elementary students.


CIED4113 Integrated Communication Skills (Sp) Focuses on the methodology of facilitating pre-kindergarten, kindergarten, and early elementary children’s literacy develop-
ment. Emphasis is on the integration of the communication skills of reading, writing, speaking, and listening across the curriculum. Corequisite: CIED 4128 and CIED 4101. Prereq-
usite: PSYC 3083, CIED 3103, and CIED 3113.

CIED1218 Content Integration (Sp) Integrates the curriculum and teaching strategies of mathematics, science, and social studies in childhood education. Students are required to develop a professional portfolio and participate in specified field experiences. Prerequisite: PSYC 3093, CIED 3103, and CIED 3113. Corequisite: CIED 4101, CIED 4113.

CIED4131 Practicum in Secondary Education (Sp, Su, Fa) This practicum is a requirement for entry into the Secondary M.A.T. program (grades 7–12). This course is designed to prepare pre-service teachers to teach in inclusive classroom settings at the sec-
dary level. Course content will focus on the ways in which exceptionally, specifically focused on high-incidence dis-
abilities. Emphasis is placed on synthesizing a broad range of existing and emerging perspectives and methods of instruction and applying them to practical classroom practice. 
CIED4323 Instructional Design for Teachers (Sp, Su, Fa) Study of the design of instruction for students with exceptionalities. Emphasis is placed on synthesizing a broad range of existing and emerging perspectives and methods of instruction and applying them to practical classroom practice. 
CIED4413 Acquiring a Second Language (Fa) The course gives an introduction to the basics in research and learning theories involved in the acquisition of second languages and cultures, particularly of English. 
CIED4423 Teaching a Second Language (Sp, Fa) This course gives an introduction to different methods used to teach individuals a second language, with an emphasis on teaching English as a second language. 
CIED4513 Teaching Children with Mild Disabili-

ties (Sp, Fa) This course is a study of the characteristics of young students with disabilities and methods for teaching this group of students. Emphasis is placed on synthesizing a broad range of existing and emerging perspectives and methods of instruction and applying them to practical classroom practice. 
CIED4523 Teaching Children with Severe Dis-

tilities (Sp, Fa) This course is designed to provide an overview of the special education needs of young students with severe disabilities and methods for teaching this group of students. Students will provide future teachers with an understanding of interventions useful in teaching individuals with special learning needs during grades P-4. 
CIED5003 Childhood Seminar (Sp) This course is designed to synthesize the foundational content presented in the Master of Arts in Teaching core courses. It focuses on refinement of the generalized knowledge to accommo-
date specialized content children. Professional attitudes, knowledge and skills relevant to young children. Professional attitudes, knowledge and skills applicable to today’s early childhood educator are addressed. Prerequisite: Admission to the CHED M.A.T. program.

CIED5012 Measurement, Research, and Statisti-
cal Concepts for Teachers (Sp) An introduction to constructing, analyzing, and interpreting tests, types of re-
search and the research process, qualitative and quantitative techniques for assessment, and descriptive and inferential statistics. 
CIED5013 Measurement, Research and Statistical Concepts in the Schools (Su) An introduction to constructing, analyzing, and interpreting tests; types of re-
search and the research process, qualitative and quantitative techniques for assessment; and descriptive and inferential statistics. Prerequisite: Admission to graduate school.

CIED5022 Classroom Management Concepts (Fa) A number of different classroom management techniques are studied. It is assumed that a teacher must possess a wide range of competencies, both pedagogical and professional. The classroom management strategies are used as a means of improving students’ behavior. Prerequisite: Admission to the M.A.T. program. 
CIED5032 Curriculum Design Concepts for Teachers (Sp) This course provides an introduction to curriculum design for students in regular and special classrooms. Theoreti-
cal bases and curriculum models are reviewed. Concurrent clinical experiences in each area of emphasis are included. Prerequisite: Admission to the M.A.T. program.

CIED5043 Content Area Reading in Elementary Grades (Sp, Fa) This course teaches the integration of reading and writing in the content areas. Reading and writing as related subjects of the language arts are integrated in the context of instructional principles and suggested teaching practices. A solid research base is emphasized while keeping the focus on practical application. Prerequisite: Admission to the M.A.T. program.

CIED5052 Seminar: Multicultural Issues (Su) This seminar provides an introduction to the major concepts and issues related to multicultural education. The ways in which race, class, gender and exceptionalities influence students’ behavior are discussed. Prerequisite: Admission to the M.A.T. program.

CIED5053 Multicultural Issues in Elementary Education (Sp) This course provides an introduction to the major concepts and issues related to multicultural education in elementary classrooms. The ways in which race, class, gender and exceptionalities influence students’ behavior are discussed. Prerequisite: Admission to the M.A.T. program.

CIED5063 Contemporary and Futuristic Concerns of Childhood Education (Sp) Historical, Contem-
porary and Future Perspective of Childhood Education. A prerequisite course in childhood education which deals with historical, current and future concerns. These early childhood concerns include demographic trends, family composition and change, instructional models, social/political/economic issues, parent/community involvement, and evolving professional roles. Prerequisite: Admission to the CHED M.A.T. program.

CIED5073 Case Study in Childhood Education (Sp) Provides the students with experience in conducting case studies related to childhood education. Students gain knowledge regarding practices used in ethnographic research. Prerequisite: Admission to M.A.T. program.

CIED5081 Childhood Education Cohort Teaching Internship (Sp, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

CIED5093 Methods of Instruction for Middle Level I (Su) A study of methods and materials in the spe-
cific subject areas (math, science, English/language arts, and social studies). The planning of instruction, microteaching, and the development of middle school instructional materials are included. Prerequisite: Admission to M.A.T. program.

CIED5094 Advanced Methods of Instruction for Middle Level (Sp) An in-depth examination of recent research on the major issues, practices, and policies for middle level education. Emphasis is on analysis of cutting edge issues germane to the field of education, and development of research that addresses the integration of theory and practice. Prerequisite: Admission to Masters of Arts in Teaching program.

CIED5113 Reading in Middle Schools (Sp, Su, Fa) An overview of methods and materials for teaching reading to early adolescents. Reflective activities and site-
based field experiences are integrated with course content to provide continuity between theory and practice. Portfolio expectations will be a primary means of course evalua-
tion. Prerequisite: Admission to the middle level education program and CIED 3113.

CIED5123 Writing Process Across the Curriculum (Middle Level) (Sp) This course will provide an overview of the research, and methods for incorporating writing across all curriculum. Writing as a process will be emphasized. Reflective activities and site-based field experience will be integrated into the course content. Prerequisite: Admission to M.A.T. Program.

CIED5132 Research in Middle Level Curriculum and Instruction (Fa) An introduction to inquiry and re-
search in the middle level curriculum. Emphasis will be given to the principles, strategies, and techniques of research, espe-
cially qualitative inquiry. Practicum in educational research and evaluation is done as part of the class. Prerequisite: Admission to the M.A.T. program.

CIED5134 Internship: Middle Level (Sp, Su, Fa) (1-6) The internship for middle level education is an extended field experience in which a pre-service teacher
integrates knowledge and skills developed in education classes with practice in the field. Prerequisite: Admission to the M.A.T. program.

CIED5162 Applied Practicum (Fa) Provides laboratory experiences for RDNG 5123 (Literacy Assessment) and RDNG 113 (Reading in Early Childhood Education). Corequisites: CIED 5158 and CIED 5173. Prerequisite: Admission to the M.A.T. program.

CIED5173 Literacy Assessment and Intervention (Su, Fa) Focuses on assessment of young children’s literacy. Techniques discussed include informal observation, misuse analysis, and portfolio assessment. Prerequisite: Admission to graduate school.

CIED5183 Readings in Early Childhood Education (Fa, Sp) Develop understandings of classical studies and will explore the impact these have had on the most recent issues in early childhood education. Prerequisite: Admission to the CIED M.A.T.

CIED5193 Methods of Instruction for Middle School II (Fa) Second special methods course for teaching at the middle level. Emphasizes further refinement of teaching skills and methods; the integration of the sciences, mathematics, and technology; science, technology, and society (STS) issues; and the integration of social studies and English language arts. Prerequisite: CIED 5092 and admission to the M.A.T. program.

CIED5203 Nature Principles of Secondary Education (Su) This course provides an introduction to the Secondary Education M.A.T. program. It provides the student with information about foundation issues in education, including the history of American Education, current trends and issues in education, political and social theories of education, characteristics of learners, and learning processes. Prerequisite: Admission to M.A.T. degree programs.

CIED5232 Interdisciplinary Studies (Sp, Su, Fa) Introduction to the nature of interdisciplinary study: curricular content, course planning (topics and themes), instructional strategies, and evaluation of assessment. Prerequisite: Admission to the M.A.T. program.

CIED5243 Special Methods of Instruction I (Su) Study of the methods and materials in the special content areas. Emphasis on instruction, remediation, and psychological dimensions of teaching the content area. The planning of instruction, microteaching, and the development of instructional materials are included. Prerequisite: Admission to the M.A.T. program.

CIED5253 Special Methods of Instruction II (Fa) Study of the methods and materials in the special content areas. Classroom applications of teaching strategies with an analysis of effective implementation in settings. Prerequisite: Admission to the M.A.T. program.

CIED5262 Special Methods of Instruction III (Sp) Study of the methods and materials in the special content areas. The focus is on student-centered and interdisciplinary methods of teaching content areas. Exposure to and implementation in the partnerships school setting. Prerequisite: Admission to the M.A.T. Program.

CIED5263 Measurement and Evaluation (Sp, Su, Fa) Assessment testing, and evaluative procedures including types of tests, abuses of tests, test construction, scoring, analysis and interpretation, statistical methods, and alternative evaluation and assessment techniques. Prerequisite: Admission to the M.A.T. program.

CIED5273 Research in Curriculum and Instruction (Sp, Su, Fa) An introduction to inquiry and research in curriculum and instruction. It examines the principles, strategies, and techniques of research, especially qualitative inquiry. Qualitative method in assessment and evaluation are considered. Practicum in educational research and evaluation is done as part of the class. Prerequisite: Admission to the M.A.T. program.

CIED528V Secondary Cohort Teaching Internship (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

CIED5293 Special Methods, Interdisciplinary Section (Sp, Fall, Spring, Summer) The third and final part of the middle level special methods course. Provides interns with the knowledge, dispositions, and skills for developing an interdisciplinary course of study in conjunction with the members of their interdisciplinary team. Prerequisite: CIED 5092 and CIED 5913 and admission to M.A.T. program.

CIED5323 Transition Planning for Persons with Disabilities (Sp, Su) Designed for students to plan, evaluate, and implement transition programs within both regular and special classrooms at the elementary, middle and secondary school levels.

CIED532V Practicum in Special Education (Irregular) (1-6) Supervised field experiences in special education programs, schools, and other facilities for exceptional children.

CIED5343 Applied Classroom Management (Fa) An advanced course in managing behaviors in students with exceptionalities. Emphasizes the diagnosis and remediation of behavior problems in applying theoretical bases of classroom management through identifying, assessing, graphing, and analyzing behavioral data and implementing management plans. Ethical issues in classroom management are addressed.

CIED5353 Teaching Students with Diverse Needs in Middle Education Settings (Irregular) To provide future scholar-practitioners with a knowledge base concerning educational and psychological issues of students with special learning needs during middle school years.

CIED5403 Early Childhood Education: Rationale and Curriculum (Irregular) Rationale and curriculum of an early childhood education program, with special attention given curricular frameworks and professional organization policies.

CIED5413 Early Childhood Education: Methods and Materials (Irregular) An interdisciplinary approach to methods and materials used in early childhood education with emphasis on developmental literacy. Prerequisite: PSYC 3063 and CIED 5403.

CIED5423 Curriculum Reconstruction (Sp, Su, Fa) Changes in curriculum development and design as related to changing social/economic/political arenas. Theories of curriculum development, implementation and evaluation are reviewed.

CIED5433 Methods and Materials for Teaching Children’s and Adolescent Literature (Sp, Su, Fa) Issues and trends in children’s literature. Contemporary works are evaluated and reviewed based on changing social political conditions. Multicultural approach to children’s literature is emphasized. Prerequisite: Undergraduate course in children’s literature.

CIED5435 Evaluation Techniques (Irregular) Evaluation of learning using traditional means of assessment as well as alternative or authentic assessment techniques.

CIED5473 Advanced Course in Children’s Literature (Irregular) The contemporary award winning books with children’s classics, analyzing elements of style. Focuses on use of rhetorical devices.

CIED5473 Evaluation Techniques (Irregular) Content, methods, and materials for teaching multiple strands of elementary school mathematics. Emphasis on principles and procedures of a conceptual and integrated approach to teaching mathematics. Includes learning mathematics in a coursework in teaching elementary or early childhood mathematics.

CIED5493 Teaching Social Studies (Irregular) Purpose, content, psychology, materials, and methods for teaching the social studies at the elementary school. Emphasis on principles and procedures for combining the social studies with other areas of the curriculum in broad unit instruction.

CIED5503 Teaching Science (Sp, Su, Fa) The influence of science on the community, on the home, and the child. Use of science in the living and learning of the child at school.

CIED5533 Teaching Language Arts (Sp, Su, Fa) The place of the language arts in the elementary curriculum. Exploration of materials, content, practices, and methods used in reading, speaking, listening, and writing experiences.

CIED5573 Foundations of Literacy (Sp, Su, Fa) Teaching of reading to children; techniques, research, and modern practices.

CIED5593 Correlates of Reading Process (Sp, Su, Fa) The developmental program is emphasized through a student of the reading process. Learning theory and research are related to teaching reading instruction and materials through the development and application of effective evaluative criteria based on an understanding of reading process. Prerequisite: CIED 5573.

CIED5593 Advance Diagnosis and Intervention (Sp, Su, Fa) Emphasizes the diagnosis and remediation of reading difficulties in the classroom setting. Students are expected to become familiar with cause of reading failure, diagnosis instruments and procedures, principles of report writing and the legal and ethical aspects of diagnosis and remediation. The course is open to graduate students with instructor's consent. Enrollment limited to 20. Prerequisite: CIED 5573.

CIED5613 Contemporary Issues in Education (Sp, Su, Fa) A study of issues pertaining to the goals, objectives, organization, and curriculum of the schools with an analysis of the teacher’s role in dealing with current concerns in these areas.

CIED5623 The School Curriculum (Sp, Su, Fa) General principles and techniques of selecting and organizing curriculum.

CIED5633 Analysis of Instruction (Sp, Su, Fa) A survey of the research and literature related to the systematic study of the field of teaching. An examination of the definitions of teaching and the knowledge base on which teaching is predicated. A study of the implications of the research of effective teaching and the key curricular and instructional issues.

CIED5653 Methods of Middle School Instruction (Sp, Su, Fa)Philosophy and functional practices of middle school instruction. Prerequisite: Graduate standing.

CIED567V Teaching Foreign Cultures in Social Studies Curricula (Sp, Su, Fa) (1-6) Extensive examination of foreign cultures (West Europe, USSR, China, Latin America) and methods of teaching about them in secondary school social studies.

CIED5683 Adolescent Literature (Sp, Su, Fa) Content course in adolescent literature including selection, reading, evaluation, and psychological basis of classic and contemporary works. Prerequisite: PSYC 3093 or equivalent.

CIED5693 Nature and Nutrition for Young Children with Mild Disabilities (Fa) Educational, psychological, and social characteristics of individuals who have mild disabilities with emphasis on educational methods and modifications.

CIED5703 Correlates of Reading Process (Irregular) An advanced course in managing behaviors in students with exceptionalities. Emphasizes the diagnosis and remediation of behavior problems in applying theoretical bases of classroom management through identifying, assessing, graphing, and analyzing behavioral data and implementing management plans. Ethical issues in classroom management are addressed.

CIED572V Teaching Severely Handicapped Children (Sp) Methods and materials for teaching students with severe handicaps, including severe mental retardation, serious emotional disturbance, and severe physical handicaps.

CIED5756V Teaching Severely Handicapped Children (Sp) Methods and materials for teaching students with severe handicaps, including severe mental retardation, serious emotional disturbance, and severe physical handicaps.

CIED5773 Methods for Young Children with Disabilities (Irregular) This course is one of the substantive core courses required of all students being recommended for the P-4 Instructional Specialist license. The Scholar Practitioner model at this level will pursue an in-depth study of the characteristics, needs, and methods for teaching persons with physical and health disabilities while emphasizing learning in the specialty studies and the social and behavioral studies in the substantive areas. Prerequisite: Graduate status.

CIED5793 Professional and Family Partnerships (Sp, Su, Fa) A study of the educational, psychological, and social characteristics of individuals with serious emotional disorders. Four major categories of behaviors (personality disorders, pervasive developmental disorders, and anxieties) are included.

CIED5853 Methods for Young Children with Disabilities (Irregular) This course is one of the substantive core courses required of all students being recommended for the P-4 Instructional Specialist license. The Scholar Practitioner model at this level will pursue an in-depth study of the characteristics, needs, and methods for teaching persons with physical and health disabilities while emphasizing learning in the specialty studies and the social and behavioral studies in the substantive areas. Prerequisite: Graduate status.

CIED5873 Professional and Family Partnerships (Sp, Su, Fa) A study of the educational, psychological, and social characteristics of individuals with serious emotional disorders. Four major categories of behaviors (personality disorders, pervasive developmental disorders, and anxieties) are included.

CIED5953 Professional and Family Partnerships (Sp, Su, Fa) A study of the educational, psychological, and social characteristics of individuals with serious emotional disorders. Four major categories of behaviors (personality disorders, pervasive developmental disorders, and anxieties) are included.

CIED5983 Professional and Family Partnerships (Sp, Su, Fa) A study of the educational, psychological, and social characteristics of individuals with serious emotional disorders. Four major categories of behaviors (personality disorders, pervasive developmental disorders, and anxieties) are included.
CIED5803 Nature and Needs of the Gifted and Talented (Fa) Educational, psychological, and social characteristics of gifted and talented children. Prerequisite: Graduate standing.

CIED5813 Curriculum Development in Gifted & Talented (Sp) Examines the various models for developing current instructional services for students identified for gifted programs. Prerequisite: CIED 5803.

CIED5823 Gifted and Talented (Structured) Practicum (Su) Supervised field experience in gifted education programs, schools, institutions, and other facilities for gifted/talented children. Prerequisite: CIED 5813.

CIED5833 Gifted and Talented (Flex) Practicum (Fa) Students design and implement an individualized practical experience program (IPED) that provides the opportunity to refine and enhance personal attitudes, beliefs, and skills in gifted education. Prerequisite: CIED 5823.

CIED5873 Assessment of Exceptional Students (Fa) Methods and techniques of assessment of children in all areas of exceptionality with emphasis on diagnosis and classification.

CIED5883 Research in Special Education (Irregular) Review of research in special education including all areas of exceptionality with emphasis on diagnosis and classification.

CIED5933 Organization, Administration and Supervision of Special Education (Irregular) Procedures, responsibilities and problems of organization, administration, and supervision of special education programs.

CIED5923 Second Language Acquisition (Sp) This is one in a series of courses leading to Arkansas approved endorsement for teaching English as a Second Language (ESL). The course gives an introduction to the basics in research and learning theories involved in the acquisition of second languages, particularly ESL.

CIED5933 Second Language Methodologies (Fa) This is one of a series of four courses leading to Arkansas approved endorsement for teaching English as a Second Language (ESL). The course focuses on cultural awareness, understanding cultural differences, and instruction methods for integrating second cultures, especially the culture of the United States, into the curriculum.

CIED5953 Second Language Assessment (Sp) This is one in a series of four courses leading to Arkansas approved endorsement for teaching English as a Second Language (ESL). The course introduces basic methods for testing, assessing and evaluating second language, especially ESL, learners for placement purposes and academic performance.

CIED5973 Practicum in Secondary Education (Sp, Fa) Students will engage in action research in a school setting to advance their knowledge of teaching and learning venues and findings in school and informal learning environments. Prerequisite: Permission.

CIED5983 Practicum in C & I (Sp, Su, Fa) This course will provide degree candidates with advance knowledge of teaching in the elementary or secondary schools. This will be accomplished through a semester-long practicum during which an action research project will be designed, enacted, and reported. Prerequisite: Admission to the M.Ed. Program. May be repeated for up to 6 hours of degree credit. CIED599V Special Topics (Sp, Su, Fa) (1-6) May be repeated for up to 18 hours of degree credit.

CIED6013 Curriculum Development (Fa) Principles and concepts of curriculum and development, with an analysis of the factors basic to planning, the aims of the educational program, the organization of the curriculum, curriculum models, and elements desirable in the curriculum of schools. CIED6023 Instructional Theory (Sp) Study of psychological, anthropological, sociological, and educational theories of instruction and learning. Emphasis is placed on synthesizing a broad range of existing and emerging perspectives in these areas, their interactions, and the resultant phenomena of instruction and learning. Prerequisite: EDFO 5373.

CIED6033 Content Specific Pedagogy (Irregular) This course explores the relationship between the nature of the content of courses taught in schools and the pedagogical principles that the teaching of the content requires. Students will discuss and synthesize findings from the research literature and from personal investigation. Prerequisite: CIED 6203.

CIED6043 Analysis of Teacher Education (Irregular) This course provides an analysis of the various trends, theories, and research associated with teacher education programs in early childhood, elementary, special education, and secondary education. Prerequisite: CIED 6023.

CIED6053 Advanced Assessment (Sp) This course provides a survey of assessment methods used to evaluate students' levels of performance in educational settings. Prerequisites: Admissions to Ed.D. or Ph.D.

CIED6063 Systematic Change in Education (Sp) This course is designed to critically examine education and society and interplay their interdependence between them, to differentiate between meaningful and superficial change, and to examine the role of agents of change in a diverse and complex social environment. Prerequisites: Admission to Ed.D. or Ph.D. program.

CIED6073 Seminar in Developing Creativity (Irregular) A study of the facets of creativity, how they can be applied to be used in one's everyday life, how they can be applied in all classrooms, and how to encourage the development of these in students.

CIED6083 Piaget's Theory and Instruction (Odd years, Sp) Piaget's theory has been applied to classroom instruction in various settings. This course will investigate the theory in depth, study classroom application, and students will devise applications. Prerequisite: CIED 6023.

CIED6233 Organization of Reading Programs (Sp, Su, Fa) Study of the problem of organizing the classroom, individual school, and school system, for the improvement of the educational services of children. Emphasis is given to the development of program organization rationale based on requirements of the teaching-learning setting.

CIED6313 Issues, History, and Rationale of Science Education (Sp, Su) This course is the foundation experience for those interested in the discipline of science education. It provides an overview of the fundamental issues in science education. The course includes the research basis for science teaching, the nature of science education, and the issues and controversies surrounding the teaching of science.

CIED6333 Nature of Science: Philosophy of Science (Sp, Su) The Nature of Science is a hybrid arena consisting of aspects of the philosophy, history and sociology of science along with elements of the psychology of scientific observations all targeting the complete understanding of how science actually functions. Prerequisite: Admission to grad school.

CIED6343 Advanced Science Teaching Methods (Irregular) This course is designed for those educators who have had some previous instruction in science teaching methods and/or had some prior science teaching experience. Students will gain new or renewed perspectives with respect to their personal teaching ability while engaging in discussions and research on science. EMphasis is given to the professional growth in science instruction. Prerequisite: Admission to graduate school.

CIED6403 Emerging Issues in Special Education (Irregular) This course analyzes emerging issues with professionals in the field of special education must be familiar and prepared to address.

CIED641V Special Topics in Special Education (Irregular) (1-6) Discussion and advanced studies on select topics in special education. Specific focus on recent developments. May be repeated for up to 6 hours of degree credit.

CIED6433 Legal Aspects of Special Education (Irregular) A study of litigation and legislation in special education, federal and state laws and court cases, and due process hearings.

CIED6443 Advanced Research in Curriculum and Instruction (Irregular) A study in the planning, implementation, and evaluation of research in special education.

CIED6503 Effective Teaching: Concepts and Processes (Sp, Su, Fa) This course is designed to assist students in examining a variety of effective teaching practices and conditions found in classrooms and in acquiring knowledge, concepts, and ideas about ways to effectively influence the learning and development of students. Prerequisites: Admission to the Ph.D. program.

CIED6603 Multicultural Education (Sp, Su, Fa) This course is designed to trace, examine, discuss, and promote understanding of issues related to multicultural education, different views of multicultural education, and the impact of multicultural education upon the schooling process. Emphasis is upon schooling experiences of culturally diverse students, language issues, gender issues, and evaluation issues. Prerequisite: Admission to the Ph.D. program. CIED660V Workshop (Sp, Su, Fa) (1-18) May be repeated for up to 18 hours of degree credit.

CIED674V Internship (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

CIED6803 Teaching Students with Autism Spectrum Disorders (Sp) This course provides students with an understanding of individuals who have been diagnosed with autism spectrum disorders. The course provides a life-span perspective by focusing on preschoolers, school-aged children, and adults. Students will study the characteristics of these individuals and general educational strategies for their education.

CIED6873 Assessment of Students with Autism Spectrum Disorders (Fa) This course provides an in-depth study of the assessment of individuals with autism spectrum disorders. It includes formal and informal assessment methods used to assist in the identification of students with ASD, as well as provide information for program development for this group of students.

CIED6883 Instructional Methods for Students with Autism Spectrum Disorders (Sp) This course is designed to assist professional educators in planning and implementing instructional and support services for students with autism spectrum disorders. Students will learn how to participate in collaborative family, school, and community partnerships.

CIED6883 Practicum in Autism Spectrum Disorders (Sp, Su, Fa) Supervised field experiences in preschool and other settings for children with autism spectrum disorders.

CIED694V Special Topics (Sp, Su, Fa) (1-6) Discussion and advanced studies on selected topics in curriculum and instruction. Specific focus on recent developments. May be repeated for up to 6 hours of degree credit.

CIED695V Independent Study (Sp, Su, Fa) (1-6) May be repeated for up to 3 hours of degree credit.

CIED700V Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Course Descriptions

Classical Studies (CLST)

CLST100 Introduction to Classical Studies: Greece (Odd years, Fa) An introduction to the world of Ancient Greece, from the Trojan War to Alexander the Great. Focuses chronologically, focusing on the literary, artistic, political, and philosophical ideas of the Greeks. Who were they and how are we like them? This course fulfills the second semester world literature requirement.

CLST101 Introduction to Classical Studies: Rome (Even years, Sp) A multi-faceted introduction to Roman culture, focusing on its political, philosophical, and artistic, historical, art and archeological dimensions. Source material to be read in English. Lectures liberally illustrated with slides. This course fulfills the second semester world literature requirement.

CLST399VH Honors Course (Irregular) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

Criminal Justice (CMJS)

CMJS2003 Introduction to Criminal Justice (Sp, Fa) Survey of the field of criminal justice, with an emphasis upon law enforcement, the courts, and corrections.

CMJS2053 Critical Thinking and Writing in Criminal Justice (Sp, Fa) An introduction to methods of critical thinking and writing in criminal justice. Prerequisite: CMJS 2003; open to majors only.

CMJS3003 Criminal Law and Society (Sp, Fa) Problems and procedures related to laws in contemporary society. Prerequisite: CMJS 2003.

CMJS3023 Criminology (Sp, Su, Fa) A survey of theories of crime causation, development of law, corrections, victimology, and policy and victimology. Prerequisite: SOCI 3023 or SOCI 3033. (Same as SOCI 3023)

CMJS3043 The Police and Society (Sp, Fa) Origins, development, and practice of policing, with an emphasis on police organization, problems, and issues in contemporary society. Prerequisite: CMJS 2003.

CMJS3073 Corrections (Fa) A study of the origins, development, and practices related to corrections, including

University of Arkansas, Fayetteville
COMM2382 Intercollegiate Forensics (Irregular)
Preparation and participation in public debates and other forensic activities may be repeated for a maximum of 6 hours of credit. No more than 6 hours of credit in COMM 2382 and 3282 may be applied toward the departmental requirement. (A maximum of 12 hours in COMM 2382 and 3282 hours of credit.) Prerequisite: 6 hours of departmental study.

COMM2813 Introduction to Electronic Media (Fa)
Introduction to the industries centered around electronic media, including radio, broadcast and cable television, public relations, film, information systems, and digital gaming. Emphasis on the historical development, organizational patterns, and cultural functions of the media.

COMM3143 Language and Expressive Culture
This course is an introduction to the study of language, culture, and social identity. Verbal art and expressive culture are examined from a variety of anthropological perspectives. Topics include ethnographies of speaking, discourse analysis, cultural performances, and the performative aspects of oral expression. (Same as ANTH 3143,ENGL 3143)

COMM3173 Introduction to Linguistics (Irregular)
Introduction to language study with stress upon modern linguistic theory and analysis. Data drawn from various languages reveal linguistic universals as well as phonological, syntactic, and semantic systems of individual languages. Related topics include sociolinguistics, dialectology, language change, its relation to culture and society, and the history of linguistic scholarship. Prerequisite: Junior standing. (Same as ANTH 3173,ENGL 3173,PLAN 3173)

COMM3282 Foundations of Children Communication (Irregular)
A continuation of 2382. May be repeated for a maximum of 6 hours of credit. No more than 6 hours of credit in COMM 2382 and 3282 may be applied to the departmental requirement. (A maximum of 12 hours in COMM 2382 and 3282 may be counted toward the B.A. requirements.) May be repeated for up to 6 hours of degree credit.

COMM3303 Small-Group Communication (Sp, Su, Fa)
Process analysis and theoretical models for analyzing communicative action, including an examination of the philosophy of argument and a practical inquiry into the uses of argument in contemporary rhetorical discourse.

COMM3353 Nonverbal Communication (Sp)
Creates an understanding of the functions of nonverbal cues operating in human communication processes and develops familiarity with recent research in the field of nonverbal communication.

COMM3355 Argumentation: Reason in Communication (Fa)
Concepts characterizing rational discourse, with a concern for examining validity and fallacy. Consider traditional and contemporary models for analyzing argument, both in and out of the mass media.

COMM3433 Family Communication (Irregular)
Study of the nature, functions, and management of communication patterns in the family. Focus is on understanding routine interpersonal interactions, conflict patterns, authority structures, and decision-making processes within the context of the contemporary family.

COMM3434 Introduction to Rhetorical Theory (Sp, Fa)
Interpretive-critical study of rhetoric in public contexts. Prerequisite: COMM 1313.

COMM3503 Popular Communication and Culture (Even years, Sp)
This course is an introduction to basic theories and topics of Popular Communication and Culture studies. The course will emphasize understanding popular media communication forms.

COMM3673 Mediated Communication (Sp, Fa)
Focuses on media messages and their social/cultural effects. Includes a critical examination of media institutions and the ways they vie for audiences. Other topics include the ways people construct meaning from messages, media’s influence on attitudes, media’s role in cultural life, and audiences as critical consumers of media. Credit arranged. Prerequisite: Junior standing.

COMM3703 Organizational Communication (Sp, Fa)
An introduction to the theory, processes, and management of communication in organizations, with opportunities for simulated practice. (Even years, Sp)

COMM3883 Rhetoric of Social Movements (Fa)
Study of the functions of rhetoric as it appears in the context of social movements such as American independence, women’s equality, and civil rights and the conservations. Prerequisite: Comm 3282H.

COMM3889H Honors Colloquio (Sp, Su, Fa)
Special topics or a topic, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in communication). Credit arranged. Prerequisite: 6 hours of degree credit.

COMM3983 Special Topics (Sp, Su, Fa)
Communication topics which are not usually presented in depth in regular courses.

COMM3999VH Honors Course (Sp, Su, Fa) (1-6)
Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

COMM4113 Legal Communication (Fa)
Examines communication topics which are not usually presented in depth in regular courses. Includes a critical examination of media institutions and the ways they vie for audiences. Other topics include the ways people construct meaning from messages, media’s influence on attitudes, media’s role in cultural life, and audiences as critical consumers of media. Credit arranged. Prerequisite: Junior standing.

COMM4113 Legal Communication (Fa)
Examines communication topics which are not usually presented in depth in regular courses. Includes a critical examination of media institutions and the ways they vie for audiences. Other topics include the ways people construct meaning from messages, media’s influence on attitudes, media’s role in cultural life, and audiences as critical consumers of media. Credit arranged. Prerequisite: Junior standing. (Even years, Sp)

COMM4143 American Film Survey (Fa)
Study of the nature, functions, and management of communication patterns in the family. Focus is on understanding routine interpersonal interactions, conflict patterns, authority structures, and decision-making processes within the context of the contemporary family.

COMM4143 American Film Survey (Fa)
A survey of major American film genres, major directors and films that have influenced the development of motion pictures. (Same as ENGL 4143)

COMM4283 Communication in Contemporary Society (Fa)
An examination of research and theory on the process and effects of communication in modern society.

COMM4313 Language and Society of Japan (Fa)
The primary objective of this course is to investigate the way the Japanese language reflects the beliefs and customs of the Japanese people as a social group. For comparison purposes, this course makes reference to studies in American language and communication. Prerequisite: 2382.

COMM4313 Language and Society of Japan (Fa)
A critical survey of international communication topics which are not usually presented in depth in regular courses.

COMM4323 Communication and Conflict (Fa)
An in-depth examination of the nature of communication-mediated conflict by examining its use and effects in interpersonal, work, educational, and societal contexts and in an introduction to the technologies and skills required for navigating the Internet. The course focuses on the social aspects of computer-mediated communication, rather than specific software or hardware technologies.

COMM4333 Communication and Gender (Sp)
Provides an in-depth examination of the nature of computer-mediated communication by examining its use and effects in interpersonal, work, educational, and societal contexts and in an introduction to the technologies and skills required for navigating the Internet. The course focuses on the social aspects of computer-mediated communication, rather than specific software or hardware technologies.

COMM4333 Communication and Gender (Sp)
The primary objective of this course is to investigate the way the Japanese language reflects the beliefs and customs of the Japanese people as a social group. For comparison purposes, this course makes reference to studies in American language and communication. Prerequisite: 2382.

COMM4333 Communication and Gender (Sp)
A critical survey of international communication topics which are not usually presented in depth in regular courses.

COMM4343 Intercultural Communication (Fa)
Study of intercultural communication skills, intercultural issues and their impact at home and abroad, and cross-cultural comparisons of communication phenomena from a variety of theoretical perspectives.

COMM4353 American Public Address (Irregular)
Historical and critical study of the leading American speakers, their speeches, the issues with which they were identified. Lectures, discussion, reports, and critical papers. Prerequisite: Junior standing.

COMM4373 Political Communication (Even years, Sp)
Study of the nature and function of the communication process as it operates in the political environment. (Same as POLS 4373)

COMM4383 Rhetoric of the Modern American Presidency (Irregular)
A study of the increasing reliance of contemporary presidents on public persuasion through rhetoric. Focuses on the words, policies, and practices. Particular attention will be devoted to the impact of media messages on individuals and societies. Emphasis will be placed on the construction and development of theory.

COMM490V Special Problems (Sp, Fa) (1-6)
Credit arranged. Prerequisite: Advanced standing. May be repeated for up to 6 hours of degree credit.

COMM4913 Internship in Communication (Sp, Su, Fa)
Internship in applied communication within public and private organizations. Prerequisite: Junior standing and completion of 18 hours in communication courses. May be repeated for up to 6 hours of degree credit.

COMM5111 Colloquium in Communication Research (Sp, Fa)
Presentation, evaluation, and discussion of research proposals or on-going research projects. Graduates are required to register for this course each semester of residence.

COMM5113 Historical and Legal Methods in Communication (Fa)
Emphasizes the assumptions and methodologies of historical and legal research methods in communication. May be repeated for up to 3 hours of degree credit.

COMM5123 Quantitative Research Methods in Communication (Fa)
Emphasizes the assumptions and methodologies of quantitative research methods in communication. May be repeated for up to 3 hours of degree credit.

COMM5133 Media Processes & Effects (Fa)
Introduces the research and methodologies of social science research methods in communication. May be repeated for up to 3 hours of degree credit.
COMM5143 Ethnographic Methods in Communication (Fa) This class focuses upon the fieldwork process and narrative writing strategies that comprise the methods of ethnographic research in communication. Students conduct fieldwork requiring in-depth interpersonal contact with members of a group or culture, and practice narrative and visual, language, and computer applications.

COMM5193 Seminar in Communication (Sp, Su, Fa) Research, discussion, and papers focus on one of a variety of communication topics including symbolic processes in contemporary culture, the philosophy of rhetoric, communication education, criticism of contemporary communication, interpersonal communication, organizational communication, and contemporary applications of rhetoric. Maximum credit is 9 hours of graded credit. Graduate standing. May be repeated for up to 3 hours of degree credit.

COMM5323 Seminar in Persuasion (Fa) Focus is on comparing theoretical accounts of persuasion and research concerning the effects of various factors on persuasion.

COMM5333 Communication Theory (Fa) Survey of the theoretical orientations in communication theory with primary focus on conceptual, theoretical, and philosophical issues.

COMM5343 Interpersonal Communication (Fa) Theory and research concerning the exchange of information and the influence of behavior among people. Prerequisite: Graduate standing.

COMM5353 Rhetorical Criticism (Sp) A seminar in rhetorical criticism. A study of the development of standards of rhetorical appraisal from the foundations of the art of speaking to the modern period; examination of contemporary approaches to rhetorical appraisal and practice in critical analysis of contemporary address. Credit: COMM5363 Seminar in Small Group Communication (Su) A consideration of recent developments in small group research which relate to problem solving tasks, leadership, and other kinds of human interaction through speech communication. Emphasis given to the interpersonal speech transaction and to the emergence of participant roles. Prerequisite: COMM 3303 or SOCI 4193. (Same as SOCI 5363)

COMM5373 Content Analysis (Irregular) Techniques for analyzing the content of communication. Includes the study of the behavior of selected communicators. Prerequisite: Graduate standing.

COMM5383 Seminar in Political Communication (Irregular) Research seminar focusing on selected topics such as candidate imagery, diffusion of political information, or political symbolism. Prerequisite: Graduate standing. (Same as PLSC 5383)

COMM5383 Seminar in Contemporary Rhetoric (Irregular) Systematic study of contemporary perspectives on rhetoric including scholars such as Burke, Richards, Weaver, Grassi, MacIntyre, Derrida, and Rorty. Prerequisite: Graduate standing.

COMM5403 Organizational Communication (Irregular) An introduction to operating systems including topics in system design, parallel and distributed systems, and case studies. Prerequisite: COMM 3503 or COMM 5993 Readings In Cultural Studies (Irregular) An exploration of the major theories and lines of research that examine family communication in contemporary American life.

COMM5443 Issues of Race and Gender in Interpersonal Communication (Odd years, Sp) An exploration of the major theories and lines of research that examine how race and gender influence interpersonal communication in everyday life in America.

COMM5443 Graduate Communication Criticism (Irregular) Seminar in major theories of mythology, including archetypal and ideological perspectives, and their applications to the criticism of public communicative events. Practice in written critical analysis. Prerequisite: Graduate standing.

COMM5503 Communication and Cultural Studies (Fa) Examination of the role of communication in modern culture. Emphasis is upon the production and circulation of meanings with society, and special attention is given to the role of popular and mass media in this process. Prerequisite: Graduate standing.

COMM5533 Family Communication (Even years, Fa) An exploration of the major theories and lines of research that examine family communication in contemporary American life. Prerequisite: Graduate standing.

COMM5569 Seminar in Film Studies (Irregular) (1-3) Research, discussion; papers on a variety of film genres and areas including the New American film, the science-fiction film, the experimental film, criticism, and the film musical. (Same as ENGL 569V)

COMM559V Special Problems (Sp, Su, Fa) (1-6) Credit by arrangement. Prerequisite: Graduate standing. COMM5913 Internship in Counseling (Sp, Su, Fa) Internship in applied communication within public and private organizations. Prerequisite: 15 hours graduate level communication in residence.

COMM5993 Readings In Cultural Studies (Irregular) Classic and current theoretical approaches to cultural studies. Subject matter changes depending on student interest and faculty expertise. Prerequisite: COMM500V Research Thesis (Sp, Fa) (1-6) Prerequisite: Graduate standing.

Computer Science/Computer Engineering (CSCE)

CSCE1013 College Computing Skills (Irregular) Introduction to the computer; basic computing skills including operating system, word processing, spreadsheet and database management applications; Internet applications including electronic mail, remote computing via Telnet, file transfer via ftp, World Wide Web navigation and publication. No prior computing skill is necessary.


CSCE2001L Programming Foundations I Lab (Sp, Fa) Introductory course for students majoring in computer science or computer engineering. Topics include data representation, high-level languages, looping, functions, pointers and introduction to UNIX operating system. Prerequisite: MATH 2554. Corequisite: CSCE 2001L. (Same as CSCE 3113)

CSCE2011L Programming Foundations II Lab (Sp) Laboratory experiments to accompany CSCE 2013. Corequisite: CSCE 2013. (Same as CSCE 3115)

CSCE2013 Programming Foundations II (Sp) Specification and implementation of computations. Fundamental topics: problem solving and analysis techniques, procedure and data abstraction, fundamental data types, operators, control structures, arrays, iteration and recursion, basic sorting and searching, an introduction to object oriented programming. Prerequisite: CSCE 2003.

CSCE2113 Digital Techniques II (Sp, Fa) An introduction to the hardware aspects of digital computers, logic gates, flip-flops, registers, reduction, and state machines. Corequisites: Lab component. (Same as ELEG 2903)

CSCE2123 Digital Techniques II (Sp) Continuation of Digital Techniques I. Topics include PLD and memory devices, finite state machine analysis, software design tools, and sequential logic design. Corequisite: Lab component. Prerequisite: CSCE 2113. (Same as ELEG 2913)

CSCE2213 Computer Organization (Sp, Fa) An introductory course in computer organization and architecture including topics in digital logic, digital systems, and memory structure. Prerequisite: CSCE 2113 and Math 2103. (Same as CSCE 3213)

CSCE2813 Introduction to Internet/World Wide Web (Irregular) Introduction to Internet and World Wide Web tools and resources, including Web browsing, robots and search engines, multimedia authoring systems, electronic publishing systems, virtual reality systems, network compatible CD-ROMs, network telecommunication and security systems, digital audio/video, multimedia authoring, and computer hardware and programming languages.

CSCE3143 Data Structures (Fa) Applications of the data structures, arrays, linked lists, trees, stacks, queues, and search techniques. Prerequisite: MATH 2103 and CSCE 3113.

CSCE3133 Algorithms (Sp) Provides an introduction to formal techniques for analyzing the complexity of algorithms. The course surveys important classes of algorithms used in computer science and engineering. Prerequisite: MATH 2103 or MATH 3103; and CSCE 3143.

CSCE3413 Internet Programming (Irregular) HTML authoring to W3C standards, use of environment and SSI variables, programming concepts with both scripting languages and interpreted and compiled languages, and web technologies. Prerequisite: CSCE 2123 and CSCE 3143. (ELEG 4913)

CSCE3943 Unix Programming I (Irregular) Structure of UNIX file system, use of exec and fork, interprocess communication and record locking. Prerequisite: CSCE 3143.

CSCE3953 Logic Synthesis-VHDL (Fa) Representation of digital signals in VHDL, VHDL design description, use of IEEE standard logic package, representation of numbers in VHDL design of arithmetic circuits using VHDL, VHDL for combinational circuits, VHDL sequential statements for registers and counters, VHDL code for finite state machines. Prerequisite: CSCE 2123.

CSCE3963 PERL Programming (Irregular) In-depth coverage of the methods and techniques of object-oriented design and its applications to database and artificial intelligence. Prerequisite: CSCE 3943.

CSCE3973 UNIX Programming II (Irregular) Structure, implementation, and application of minicomputer systems, microcomputer hardware, microprogramming, microcomputer software technology, and design and evaluation of minicomputer systems. Prerequisite: CSCE 3943.

CSCE4013 Special Topics (Irregular) Consideration of computer science topics not covered in other courses. May be repeated for up to 3 hours of degree credit.

CSCE4023H Honors Special Topics (Irregular) Consideration of current computer engineering honors topics not covered in other courses. Prerequisites: Honors standing. CSCE4213 Embedded Systems Course (Irregular) Study the architecture, software, and hardware of embedded systems. Involves a mixture of hardware and software for the control of a system (including electrical, electro-mechanical, and electro-chemical systems). Topics include a variety of products including cars, VCRs, HDVs, cell phones, pacemakers, spacecraft, missile systems, and robots for factory automation. Prerequisite: CSCE 2123.

CSCE4213 Embedded Systems Course (Irregular) Design of a single board computer including basic computer organization, memory subsystem design, peripheral interfacing, DMA control, interrupt control, and bus organization. Prerequisite: CSCE 2123. (Same as ELEG 2983)

CSCE4233 Low Power Digital Systems (Irregular) The reduction of power consumption is rapidly becoming one of the key issues in digital system design. Traditionally, the goal of chip design has mainly been to maximize circuit and area trade-offs. This course will provide a thorough introduction to digital design for lower consumption at the circuit, logic, and architectural level. Prerequisite: CSCE 2123.

CSCE4253 Concurrent Computing (Irregular) Programming concurrent processes; computer interconnect network topologies; loosely coupled and tightly coupled parallel computer architectures; designing algorithms for concurrency; distributed computer architectures. Prerequisite: senior standing in computer science or engineering.

CSCE4313 Programming Languages (Fa) Comparison of imperative, object-oriented, and functional styles of languages; language extendibility, design of language interpreters, lexical analysis, grammars/parsing, and evaluation strategies. Prerequisite: CSCE 3143.

CSCE4323 Formal Languages and Computability Theory, finite automata and regular expressions, context-free languages and pushdown automata, nondeterminism, grammars, and Turing machines. Church’s thesis, halting problem, and undecidability. Prerequisite: CSCE 3143.

CSCE4353 CPLD/FPGA-Based System Design (Irregular) Field Programmable Logic devices (FPGAs/ CPLDs) have become extremely popular as basic building blocks for digital systems. These devices are a general purpose technology that users can customize by inducing permanent or reversible physical changes. This course will deal with the implementation of logic options using these devices. Prerequisite: CSCE University of Arkansas, Fayetteville
CSCE4353H Honors CPLD/FPGA-Based System Design (Irregular) Field Programmable Logic (FPGAs/CPLDs) have become extremely popular as basic building blocks for digital systems. They offer a general architecture that users can customize by inducing permanent or reversible changes in their structure. This course will deal with the implementation of logic options using these devices. Prerequisite: CSCE 2123 and Honors standing.

CSCE4423 Computer Systems Modeling (Irregular) A study of the computer system as a whole: the flow of data from the user to the user, and through the computer in between. Emphasis will be placed on the use of simulation experiments. A simulation will be introduced and used in this course. Prerequisite: INEG 3313 or STAT 3013 and proficiency in a programming language.

CSCE4913 Honors Thesis (Sp, Fa) A modern approach to the current techniques used in software design and development. This course emphasizes the use of modern software development tools, multi-module programming, and team design and engineering. Prerequisite: CSCE 3143.

CSCE4523 Database Management Systems (Fa) Introduction to database management systems, architecture, storage structures, indexing, relational data model, E-R diagram, query languages, SQL, ODBC, transaction management, integrity, and security. Prerequisite: CSCE 3143.

CSCE4543 Software Architecture (Irregular) A study of software architecture. Students will study case studies drawn from real systems designed to solve real problems from technical as well as managerial perspectives. Techniques for designing, building, and evaluating software architecture. Prerequisites: CSCE 3313 and CSCE 4513.

CSCE4561 Capstone I (Sp, Fa) CSCE students complete a comprehensive software capstone project during their final year of undergraduate studies. The project is done over 2 semesters in phases: concept, formal proposal, implementation, and presentation. The project includes and may require the integration of software and human factors and hardware elements and are developed to software engineer methodologies. Prerequisite: CSCE 3143.

CSCE4613 Artificial Intelligence (Irregular) Introduction to intelligent agents, AI languages, search, first order logic, knowledge representation, ontologies, problem solving, natural language, machine vision, machine learning, and robotics. Prerequisite: CSCE 3143.

CSCE4753 Computer Networks (Fa) This course is an introductory course on computer networks. Using the Internet as a case study, the course introduces underlying concepts and principles of modern computer networks, with emphasis on protocols, architectures, and implementation issues. Prerequisite: INEG 3313 or STAT 3013.

CSCE5003 Cryptography (Irregular) Introduction to the theory and algorithms used in computer graphics systems and applications. Topics include: 2D and 3D geometric models (points, lines, polygons, surfaces), affine transformations, scaling, viewpoint calculation (clipping, projection), lighting models (light-material interactions, illumination and shadow calculation). Students will implement their own graphics pipeline to demonstrate many of the higher level computer graphics applications will be created using OpenGL. Prerequisite: CSCE 3143.

CSCE490V Individual Study (Irregular) (1-3) Individual study directed by faculty in current research topics, state of the art, or advanced methodology in one of the major computer science or computer engineering areas. Prerequisite: Honors standing. May be repeated for up to 4 hours of degree credit.

CSCE4963 Capstone II (Sp, Fa) CSCE students complete a comprehensive capstone project during their final year of undergraduate studies. The project is done over 2 semesters in phases: concept, formal proposal, implementation, and presentation. The projects include and may require the integration of software and human factors, hardware elements and are developed to software engineer methodologies. Prerequisite: CSCE 4561.

CSCE4963 Advanced Programming Languages (Irregular) Abstract, proof of correctness, functional languages, concurrent programming, exception handling, dataflow and object-oriented programming, denotational semantics, semantics and execution. Computer Science (Irregular) Consideration of current computer engineering topics not covered in other courses. May be repeated for up to 3 hours of degree credit.

CSCE5033 Advanced Algorithms (Sp) Design of computer algorithms. May have an emphasis on the development of efficient implementation. Prerequisite: CSCE 4543 Advanced Artificial Intelligence (Irregular) In-depth introduction to AI. Topics include: philosophical aspects of intelligent agents, AI languages, search, genetic algorithms, first order and modal logic, inference, resolution, knowledge representation, ontologies, problem solving, planning, expert systems, uncertainty, probabilistic reasoning, fuzzy logic, machine learning, natural language processing, machine vision, and robotics. Prerequisite: Graduate standing.

CSCE5083 Digital Circuit Design Verification (Irregular) Focuses on formal verification as an alternative to simulation and testing in the elimination of design logic errors in digital systems. Prerequisite: CSCE 2123.

CSCE5003 Fault-Tolerant System Design (Irregular) Fault-tolerance is concerned with making or recovering from the effects of faults in a digital system, once they have been detected. On-line fault detection is often required before the fault recovery process. This course will familiarize students with currently available techniques for self-checking and fault-tolerant digital system design.

CSCE5203 Advanced Database Systems (Irregular) (1-3) Study of the principles of database systems. Topics include XML, query, data warehouses, network as database systems, peer-peer data sharing architectures, data grids, data mining, logic foundations, semantic databases, spatial and temporal databases, and digital databases. Prerequisite: CSCE 5123 and graduate standing.

CSCE5213 Bioinformatics (Irregular) Application of algorithmic techniques to the analysis and solution of biological problems. Topics include an introduction to molecular biology and recombinant DNA technology, biological sequence comparison, and phylogenetics, as well as topics of current interest. Prerequisite: Instructor consent. (Same as BEN 5213)

CSCE5243 Advanced Formal Languages (Irregular) An advanced continuation of CSCE 4323. Prerequisite: CSCE 4323 and graduate standing.

CSCE5260 Complexity (Irregular) Turing machines, recursion theory and computability, complexity measures, NP-completeness, analysis on NP-complete problems, pseudo-polynomial and approximation. Prerequisite: Graduate standing or instructor consent.

CSCE5263 Graph and Combinatorial Algorithms (Irregular) A study of algorithms for graphs and combinatorics with special attention to computer implementation and runtime efficiency. Prerequisites: Graduate standing or instructor consent.

CSCE5313 Advanced Operating Systems (Irregular) Concurrent processes and process communication; multitasking and microkernel implementation principles; kernel philosophy; resource allocation and deadlock; and case studies of specific operating systems. Prerequisite: CSCE 4413 or equivalent and graduate standing.

CSCE5353 Computer Networks (Irregular) Study of a broad selection of contemporary issues in computer security. Topics include access control, security policies, authentication methods, secure system design, and information assurance. Prerequisite: CSCE 4413.

CSCE5333 Computer Forensics (Irregular) Various methods for identification, preservation, and extraction of electronic evidence at a computer crime scene. Specific topics include auditing and investigation of network and host intrusions, computer forensic tools, resources for system administrators and information security officers, legal issues related to computer and network forensics. Prerequisite: CSCE 3160.


CSCE5643 Computer Communications Networks (Irregular) A study of computer communication networks, including the data link layer, routing, flow-control, local area networks, TCP/IP, ATM, B-ISDN, queuing analysis, and recent developments in computer communications.

CSCE5653 Network Security (Irregular) This course introduces security and security in a networked environment. It is intended for students with the elementary knowledge of secure communication, and how they inter-relate to provide secure networks in public and private settings. Prerequisite: CSCE 5723.

CSCE5723 Client-Server Computing (Irregular) Advanced Object Oriented methods for designing software systems for network applications. Topics include implementation of distributed object models, OOP, flexibility, and reusability. Prerequisite: CSCE 5743 and graduate standing.

CSCE581V Master’s Project (Sp, Su, Fa) (1-6) Requires student to prepare a report for course option. Prerequisite: Graduate standing.

CSCE590V Advanced Individual Study (Irregular) (1-3) Advanced graduate level individual study directed by faculty in current research topics, state of the art, or advanced methodology in one of the major computer science or computer engineering areas.

CSCE5943 Computer Arithmetic Circuits (Irregular) A study of fundamental techniques for performing arithmetic operations in computers. This course provides sufficient theoretical and practical information to prepare the digital design engineer with an awareness of basic techniques for the realization of arithmetic circuits. Pre or Corequisite: Graduate standing.

CSCE5983 Application Specific Integrated Circuit Design (Irregular) ASIC design is taught with emphasis on industrial preparation. Topics include ASIC technologies, design entry, simulation, and synthesis. Advanced design methods and techniques are studied for cell based and gate array ASICs. Prerequisite: CSCE 4213 or ELEG 4943.

CSCE5993 Master’s Thesis (Irregular) Prerequisite: CSCE 5983.

CSCE620V Post-Master’s Research (Sp, Fa) (1-18) A study of the current research topics, state of the art, or advanced methodology in one of the major computer science or computer engineering areas. Prerequisite: Honors standing. May be repeated for up to 18 hours of degree credit.

Crop, Soil & Environmental Sciences (CSES)

CSES1011 Introduction to Crop, Soil, and Environmental Science (CSES) An introduction to the study of plants and their environment. This course is a prerequisite for many of the plant science major courses. Prerequisite: CSCE 2101 or equivalent.

CSES1203 Introduction to Plant Sciences (Sp, Fa) An introduction to the study of plants and their environment. This course introduces students to the basic principles of plant growth and development, reproduction, classification, and the utilization of plant products. Emphasis is placed on major crop plant species. Experiments are conducted by individuals or by teams. Laboratory consists of a single, 2-hour period each week. Required for Crop Management majors.

CSES1203 Crop Science (Sp) An introduction to the principles of organic agriculture and biology and the regulations defining organic production and certification. Additional topics include crop rotation, pest management and the use of organic matter, feeding the soil and plant nutrition, soil health, and green manuring, corporate agriculture and genetically modified organisms.

CSES1203 Pest Management (Sp) Introduction to basic principles of pest management as they relate to vertebrate animals, insects, plant disease and weeds. Selected pests are studied with emphasis on current management approaches and alternative pest control.

CSES210L Crop Science Laboratory (Sp) A series of laboratory experiments designed to reinforce principles of plant growth and development, reproduction, classification, and the utilization of plant products. Emphasis is placed on major crop plant species. Experiments are conducted by individuals or by teams. Laboratory consists of a single, 2-hour period each week. Required for Crop Management majors.

CSES210L Crop Science Laboratory (Sp) A series of laboratory exercises related to the study of the physical, chemical, and biological properties of soils. Laboratory exercises include all crop management and environmental soil and water science majors and optional for others. Laboratory 2 hours per week. Pre-requisite: CSCE 2203.

CSES2203 Soil Science (Sp) Origin, classification,
and physical, chemical, and biological properties of soils. Lecture 3 hours, discussion 1 hour per week. Corequisite: Drill component. Prerequisite: CHEM 1103 or CHEM 1074. (Same as ENSC 2030).

CSES3023 Crop, Soil, and Environmental Sciences Colloquium (Fa) A communication-intensive course in soil, plant, and environmental sciences. Prerequisite: CSES 203 or CSES 2301 or HORT 1203. Corequisite: Lab component. Prerequisite: CSES 203 or CSES 2301 or HORT 1203.

CSES3024 Crop Growth and Development (Even years, Fa) Principles of genetics and environmental factors that influence plant development. Prerequisite: BIOL 1623 or BIOL 1621L. Corequisite: Lab component. Prerequisite: CHEM 2013 or MATH 2011L.

CSES3113 Forage Management (Even years, Sp) Management of forage crops for pasture, hay, and silage with reference to growth and development, production, nutritional quality, and grazing systems. Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: Prerequisites: BIOL 1613 or CHEM 2613 or CHEM 2611L.

CSES3124 Plant Anatomy (Sp) Advanced training in plant anatomy. Study the structure, terminology, techniques and function associated with vascular plant anatomy. Corequisite: Lab component. Prerequisites: BIOL 1613/1611 or BIOL 1543/1541L.

CSES4253 Soil Classification and Genesis (Sp) Lecture and field evaluation of soil properties and their relation to soil genesis. Emphasis on soil classification systems, soil profile soil of Arkansas. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CSES 2030.

CSES462V Internship (Sp, Su, Fa) (1-6) Supervised practical work experience in agronomy and environmental science to develop and demonstrate professional competence. Faculty approval of project proposal prior to enrollment and written and oral reports after the project is complete are required. Prerequisite: junior standing. May be repeated for up to 6 hours of degree credit.

CSES4803 Precision Agriculture (Odd years, Fa) Advanced concepts and practices related to precision agriculture, including the use of global position systems and satellite technology. Prerequisite: MATH 1302. Corequisite: Lab component. Prerequisite: CHEM 3013 or CHEM 3011L.

CSES5001 Weed Science Practicum (Su) Training for membership on weed team, through participation. Prerequisite: Graduating standing.

CSES5013 Crop Physiology (Odd years, Fa) Understanding and quantitative measurement of physiological processes, plant responses, and environmental parameters in relation to crop production. Prerequisite: BIOL 4030.

CSES5023 Weed Physiology and Herbicide Resistance in Plants (Odd years, Fa) The reproduction, growth, and development of weeds and the ecological factors affecting these processes; development and mechanisms of herbicide resistance; flow of herbicide-resistance genes; and development of herbicide-resistant crops. Corequisite: Lab component. Prerequisites: CSES 4143 and (BIOL 4034 or CHEM 5803).

CSES502V Special Problems Research (Sp, Su, Fa) (1-6) Original investigations on assigned problems in agronomy. Prerequisite: Graduate standing.

CSES5031 Crop Production and Plant Nutrition (Even years, Fa) Study of water uptake, ion absorption, translocation and metabolism in higher plants. Lecture 3 hours per week. Prerequisites: BIOL 4034 and CHEM 2613 or CSES 2301 or HORT 1203.

CSES504V Special Topics (Irregular) (1-4) Topics not covered in other courses or a more intensive study of specific topics in agronomy. Prerequisite: Graduate standing.

CSES5053 Scientific Writing (Fa) Open to graduate students, especially those in agricultural and life sciences. The course will cover searching the scientific literature, writing theses, proposals, journal articles, and other scientific documents. Emphasis on style and techniques used in scientific publication. Lecture and workshop 3 hours per week. Prerequisite: Graduating standing.

CSES5103 Scientific Presentations (Sp) Experience in procedures required for professional presentations of scientific papers, seminars, posters, and research findings at meetings in conferences, and with discussion groups. Instruction in organization of materials, visual aids, and good speaking habits. Lecture 3 hours per week. Prerequisite: Graduate standing.

CSES5124 Crop Molecular and Physiological Genetics (Even years, Sp) Study of genome organization and expression in various crop plants, with emphasis on genes regulating physiological processes. Lecture 3 hours, discussion 1 hour per week. Prerequisites: CHEM 5103 and CHEM 5101L. Corequisite: BIOL 4304 and CHEM 2323L and CHEM 2321L or (ANSC 3123).

CSES5214 Analytical Research Techniques in Agronomy (Even years, Fa) Preparation and analysis of plant and soil samples utilizing spectrophotometry, isotopes, and chromatographic separation methods. Additionally, sample preparation, techniques are made of physical and chemical properties of soils, water relationships, light, and temperatures in whole plants. Lecture 2 hours, laboratory 4 hours per week. Corequisite: Lab component. Prerequisites: BIOL 4304 and CHEM 2613 or CHEM 2611L.

CSES5224 Soil Physics (Sp) Physical properties of soils and their relation to other soil properties, growth of plants and transport of water, oxygen, heat, and solutes such as pesticides and plant nutrients. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisites: CSES 2023 and MATH 1203.

CSES5233 Plant Genetic Engineering (Odd years, Fa) The principles of genetic engineering will be covered, with emphasis on the strategies for crop improvement and gene discovery. Lecture 3 hours.

CSES5264 Soil Microbiology (Odd years, Sp) A study of the microorganisms in soil and the biochemical processes for which they are responsible. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: BIOL 2013 and BIOL 2011L.

CSES5453 Soil Chemistry (Even years, Sp) Application of the principles of chemistry to processes of agricultural and environmental importance in soil. Study of mineralogy, soil solution thermodynamics, structure and reactivity of humus, surface complexation and ion exchange, electro-chemical phenomena, and colloidal stability. Prerequisite: CHEM 2611L and CHEM 2613L.

CSES5543 Plant Genomics (Odd years, Fa) Plant genetics based on the study of whole genome sequence, transcriptome and proteome. Provides an overview of the principles and techniques of experimental and computational genomics. Covers all areas of genome research including structural, comparative and functional genomics as well as proteomics. Prerequisites: CHEM 5843 or any graduate level genomics course.

CSES600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

CSES6113 Herbicide Behavior (Even years, Fa) Environmental chemistry, physiology and behavior of herbicides in plants, soils, and the environment. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CSES 4143 and BIOL 4034 and CHEM 3813.

CSES6253 Forage-Ruminant Relations (Odd years, Sp) Advanced chemical, physical, and botanical characteristics of forage plants, the dynamics of grazing, intake and digestion, and techniques of measuring forage quality and systems and analytical tools. Lecture 3 hours per week. Prerequisite: ANSC 3143 and CSES 3113. (Same as ANSC 6253).

CSES700V Doctoral Dissertation (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

CSE700V Doctoral Dissertation (Sp, Su, Fa) (1-18)
CIVEG34303 Reinforced Concrete Design I (Sp, Fa)
Design of reinforced concrete elements with emphasis on ultimate limit state, load and resistance factor design. Corequisite: CIVEG 2113 and CIVEG 3304.

CIVEG34313 Structural Steel Design I (Sp, Fa)

CIVEG34323 Design of Structural Systems (Sp, Fa)
An overview of the structural design of buildings. Investigates structural design from loading identification through structural analysis and detailing including consideration of fabrication, construction methods, and materials. Prerequisites: CIVEG 4613 or CIVEG 4821 or CIVEG 4831, or CIVEG 4841. Corequisites: CIVEG 4303 and 4313.

CIVEG3433 Reinforced Masonry Design (Irregular)

CIVEG34353 Timber Design (Irregular)
Selection of timber beams, columns, and beam-columns. Physical properties of wood, analysis and design of timber connections. Topic descriptions include design of loadbearing walls; fire treatment for decay, and fire protection. Corequisite: CIVEG 2113.

CIVEG34363 Prestressed Concrete Design (Irregular)
Analysis and design of prestressed concrete sections by working stress and ultimate strength design methods. Flexural behavior, moment-curvature diagrams, deflections, and loadings; flexural reinforcement design and interaction of concrete sections and continuous beams. Prerequisite: CIVEG 4303.

CIVEG34393 Reinforced Concrete Design II (Irregular)
Strength, stiffness, minimum thickness requirements, and design calculations for reinforced concrete structural slabs. Design of one-way and two-way structural slabs by the direct design and equivalent frame methods. Prerequisite: CIVEG 4303.

CIVEG34413 Pavement Evaluation and Rehabilitation (Irregular)
Introduction of concepts and procedures for pavement condition surveys; evaluation by nondestructive and destructive testing; maintenance strategies; rehabilitation of pavement systems for highway and airfield; pavement management systems. Prerequisites: CIVEG 4343.

CIVEG4423 Geometric Design (Sp)
The geometric design of streets and highways, based on theory and application of curvilinear and vehicular characteristics. Prerequisite: CIVEG 3413.

CIVEG4433 Transportation Pavements and Materials (Sp, Fa)
Study of the engineering properties and behavior of materials used in transportation facilities as they relate to the design and performance of flexible and rigid pavement systems. Lecture 2 hours, laboratory 3 hours per week. Prerequisites: CIVEG 3133 and CIVEG 3413 and INCE 1303.

CIVEG4513 Construction Management (Sp, Fa)
Introduction to methods and procedures for management of civil engineering construction projects including organization, plans and specs, cost estimating and bidding, project planning and finance, quality control/assurance, construction safety, cost management, labor issues, change orders, and subcontractor issues. Prerequisite: Senior standing.

CIVEG4803 Structural Loadings (Irregular)
Theoretical background to and practical code requirements for various structural loadings. These include dead loads, occupancies, roof loads and ponding, snow loads, granular loads, vehicular loads, wind loading, and seismic loads. Prerequisites: CIVEG 3304 and CIVEG 4303 (or CIVEG 4313).

CIVEG4811 Environmental Design Project (Sp)
Comprehensive environmental design project primarily related to environmental issues. Corequisite: CIVEG 4243.

CIVEG4821 Geotechnical Design Project (Fa)
Comprehensive engineering design project primarily related to geotechnical issues. Corequisite: CIVEG 4143.

CIVEG4841 Transportation Design Project (Fa)
Comprehensive transportation design project primarily related to transportation issues. Corequisite: CIVEG 4333.

CIVEG4852 Engineering Professional Practice Issues (Sp, Fa)
Study of various issues related to the professional practice of engineering including ethics, professionalism, project procurement, social and political issues, professional management, global communities, and other legal issues. Corequisites: CIVEG 4811 or CIVEG 4821 or CIVEG 4831 or CIVEG 4841.

CIVEG488V Special Problems (Irregular) (1-6)
Senior standing. May be repeated for up to 6 hours of degree credit.

CIVEG491VH Honors Studies in Geotechnical Engineering (Irregular) (1-6)
The study of advanced topics in the geotechnical engineering field. May include participation in geotechnical engineering courses normally available only to graduate students. Course may be repeated for up to 6 hours total credit with approval of the CIVEG honors advisor. Prerequisite: CIVEG 4323.

CIVEG492VH Honors Studies in Environmental Engineering (Irregular) (1-6)
The study of advanced topics in the environmental engineering field. May include participation in environmental engineering courses normally available only to graduate students. Course may be repeated for up to 6 hours total credit with approval of the CIVEG honors advisor. Prerequisite: CIVEG 4323.

CIVEG493VH Honors Studies in Transportation Engineering (Irregular) (1-6)
The study of advanced topics in the transportation engineering field. May include participation in transportation engineering courses normally available only to graduate students. Course may be repeated for up to 6 hours total credit with approval of the CIVEG honors advisor. Prerequisite: CIVEG 4323.

CIVEG4983H Honors Undergraduate Thesis (Irregular)
Thesis research for civil engineering students in the honors college. Prerequisites: Honors College, CIVEG 5113 Soil Dynamics (Irregular) This course covers propagation of stress waves in elastic and inelastic materials, dynamic loading of soils, and stiffness and damping properties of soils. Use of fundamental equations to determine shear wave velocity of soils. Also includes application of dynamic soil properties in site stiffness characterization, geotechnical earthquake engineering, evaluation of ground improvement, and design of machine foundations. Prerequisite: CIVEG 4143.

CIVEG5123 Measurement of Soil Properties (Irregular)
Consideration of basic principles involved in measurement of properties of soil. Detailed analysis of standard and specialized soil testing procedures and equipment. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: CIVEG 4343.

CIVEG5143 Transportation Engineering (Irregular)
Advanced study of the properties of surficial soils; soil classification systems; pedology; soil occurrence and variability; subgrade evaluation procedures; repeated load behavior of soils; soil compaction; soil stabilization; soil trafficking and subgrade stability for transportation facilities. Prerequisites: CIVEG 3333.

CIVEG5163 Seepage and Consolidation (Irregular)
Investigation of the flow of water through soils and the time rate of compression of soils. Characterization of the hydraulic conductivity of soils in the field, seepage through earth dams, excavation cut-off walls, and other seepage control systems. Analytical and experimental investigations of soil-water change under hydraulic and mechanical loading. Design of earth and rock dams, well pumping, and vertical and radial consolidation in embankments. Prerequisite: CIVEG 4143.

CIVEG5173 Advanced Foundations (Irregular)
Study of soil-supported structures. Topics include drilled piers, slope stability, pile groups, negative skin friction, foundation design from the standard penetration test and Dutch cone, and complex foundation design topics. Prerequisite: CIVEG 4143.

CIVEG5183 Geo-Environmental Engineering (Irregular)
Study of the geotechnical aspects of waste containment and remediation systems and contaminants. Analysis and measurement of flow of water and contaminants through saturated and unsaturated soils, clay mineralogy and soil-chemical compatibility, and mechanical and hydraulic behavior of waste containment systems and composite landfill liners. Design and construction aspects of compacted clay and composite landfill liners, drainage systems, and landfill covers. Prerequisite: CIVEG 3133
CVEG5193 Geotechnical Earthquake Engineering (Irregular) This course covers stress wave propagation in soil and rock, and application of soil conditions on seismic ground motion characteristics; evaluation of site response using wave propagation techniques; liquefaction of soils; seismic response of earth structures and slopes. Prerequisite: CVEG 4143.

CVEG5234 Water and Wastewater Analysis (Irregular) Application of chemistry to environmental engineering. Quantitative determinations of constituents in water and wastewater. Principles of bacteriological laboratory techniques. Lecture 3 hours, laboratory 3 hours per week. Prerequisite: CVEG 3243.

CVEG5243 Groundwater Hydrology (Fa) Detailed analysis of groundwater research, well hydraulics, flow measurement techniques, hydrology review, evaluation and storm drainage facility design, natural channel classification (fluvial geomorphology) and rehabilitation, computer methods and environmental issues. Prerequisite: CVEG 3213 and CVEG 3223.

CVEG5293 Water Treatment & Distribution System Design (Irregular) Design of industrial and municipal water treatment plants. Discussion of raw and treated water requirements for the several uses. Distribution system analysis and design including distribution storage and pumping. Prerequisite: CVEG 3243.

CVEG5383 Finite Element Methods in Civil Engineering (Irregular) An understanding of the fundamentals of the finite element method and its application to solve problems in structural behavior. A study of the basic principles of structural analysis as applied to conventional forms, space trusses, and frames. Prerequisite: CVEG 3304.

CVEG5343 Highway Bridges (Irregular) Economics of spans, current design and construction specifications, comparative designs. Possible refinements in design techniques and improved utilization of materials. Prerequisite: CVEG 4313 or permission of instructor.

CVEG5383 Finite Element Methods in Civil Engineering (Irregular) An understanding of the fundamentals of the finite element method and its application to solve problems in structural behavior. A study of the basic principles of structural analysis as applied to conventional forms, space trusses, and frames. Prerequisite: CVEG 3304.

CVEG5403 Advanced Reinforced Concrete II (Irregular) Design of circular and rectangular reinforced concrete tanks for fluid and granular loads. Prerequisite: CVEG 4143.

CVEG5413 Transportation and Land Development (Irregular) Study of interaction between land development and the transportation network. Application of planning, design, and operational techniques to manage land development impacts upon the transportation system, and to integrate land layout with transportation network layout. Prerequisite: Graduate standing.

CVEG5423 Structural Design of Pavement Systems (Irregular) An introduction to the structural design of pavement systems including: survey of current design procedures; study of rigid pavement joining and reinforcement principles; development of the behavior characteristics of pavements materials and of rigid and flexible pavement systems; introduction to structural analysis theories and to pavement management concepts. Prerequisite: CVEG 4433.

CVEG5543 Geotechnical Engineering (Irregular) A study of both the underlying theory and the use of traffic control devices (signs, traffic signals, pavement markings), and relationships to improved traffic flow and safety. Driver and vehicle dynamics, geometric design, and traffic safety concerns. Also includes methods to collect, analyze, and use traffic data. Prerequisite: CVEG 3413 or graduate standing. CVEG5463 Transportation Modeling (Irregular) The use of mathematical techniques and/or computer software to model significant transportation system attributes. May compare model results with actual measured traffic attributes, using existing data sources and/or collecting and analyzing field data. Prerequisite: Graduate standing.

CVEG5473 Transportation System Characteristics (Irregular) Introduction to traffic flow theory, including traffic stream interactions and capacity. Applications for planning, design, operations. Prerequisite: CVEG 3413 and graduate standing.

CVEG5483 Transportation Management Systems (Irregular) Six transportation management systems are explored: pavement, bridge, intermodal, public transportation, safety, and congestion. System approaches are presented. Techniques are introduced on how to optimally allocate resources. Pavement and bridge structure basics are discussed and their performance parameters are presented. Case studies are used to illustrate the interfaces among various modes of transportation. Safety and congestion problems in transportation are addressed.

CVEG562V Research (Sp, Su, Fa) Fundamental and applied research. Prerequisite: Graduate standing. CVEG563V Special Problems (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

CVEG5734 Advanced Wastewater Process Design and Analysis (Irregular) Application of advanced techniques for the analysis of wastewater treatment facilities. Physical, chemical and biological processes for removing suspended solids, organics, nitrogen, and phosphorus. Laboratory treatment studies will be used to develop design relationships. Lecture 3 hours, laboratory 3 hours per week. Prerequisite: CVEG 5324 and CVEG 4243.

CVEG600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing. CVEG700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Course Descriptions

Dance (DANC)

DANC1003 Basic Course in the Arts: Movement and Dance (Sp, Fa) This course is an introduction to the nature and scope of ballet, modern dance, and ethno-racial-world dance forms, their potential for contributing towards multicultural literacy, and the shaping of an American audience. Comprised of lectures, videos, and movement experiences in the form of Studio Labs.

DANC1912 Beginning Modern Dance (Sp, Fa) An introduction to modern dance techniques. Prerequisite: DANC 1912.

DANC1912 Beginning Modern Dance II (Sp, Su, Fa) A continuation of basic modern dance techniques from DANC 1912, with emphasis on weight, time, and shape in movement. Prerequisite: DANC 1912 or permission of instructor.

DANC1922 Beginning Modern Dance II (Sp, Su, Fa) A continuation of basic modern dance techniques from DANC 1912, with emphasis on weight, time, and shape in movement. Prerequisite: DANC 1912 or permission of instructor.

DANC1932 Beginning Ballet (Sp) An introduction to the basics of ballet in the recognized classic form including barre exercises, port de bras, and center practice. Prerequisite: DANC 1942 or permission of instructor.

DANC1942 Beginning Ballet II (Sp, Su, Fa) A continuation of the basics of classical ballet from DANC 1932. Prerequisite: DANC 1932.

Dance Education Activity (DEAC)

DEAC1961 Ballroom Dance (Sp) The fundamentals of ballroom dance.

Degree Studies (DGST)

DGST600V DEGREE STUDIES (1-18)

Drama (DRAM)

DRAM1003 Basic Course in the Arts: Theatre Lecture (Sp, Su, Fa) Introduction to theatre arts: playwriting, directing, acting, and design. For the general student. May not be presented toward satisfaction of the B.A. in fine arts requirement by drama majors.

DRAM1912 Introduction to Dramatic Art (Sp, Fa) Introduction to an examination of the various elements that make up dramatic art. Study of the history, literature, theory, and practice of the theatre, from ancient to modern times, from the playwright to the producer.

DRAM1311L Stage Technology I Laboratory (Fa) An introduction to the evaluation of costume technique and makeup skills. Students will participate in projects involving the construction and preparation of costumes and makeup designs associated with departmental productions. Production design positions will also be assigned. Corequisite: DRAM 1313.

DRAM1313 Stage Technology I: Costumes and Makeup (Fa) Fundamentals of basic costume construction with an emphasis on techniques, materials, planning and process. Training in the basic principles of theatrical makeup application. Corequisite: DRAM 1311L.

DRAM1321L Stage Technology II Laboratory: Lighting & Scenic Design (Sp) Emphasis on the application of principles of scenery and lighting technology. Students will participate in projects involving the construction and preparation of scenery, stage properties, and lighting associated with departmental productions. Production design positions will also be assigned. Corequisite: DRAM 1303.

DRAM1323 Stage Technology II: Scenery and Lighting (Sp) Fundamentals of scenery and lighting technology with emphasis on theatre tools, equipment, and basic drafting. Training in basic principles and stages of stage carpentry, lighting technology and rigging. Corequisite: DRAM 1232L.

DRAM2063 Acting I (Sp, Su, Fa) An analytical approach to the actor’s art with emphasis on the techniques of characterization.

DRAM2313 Introduction to Theatrical Design (Sp) Emphasis on the fundamentals of design principles for costume, lighting, and scenery. Study of the designer’s role in the production process, design requirements, and aesthetics. Emphasis on the basic principles of two-dimensional art and graphic forms through various design techniques. Study of color and color theory as they apply to the major areas of theatrical design. Prerequisite: DRAM 1323 and DRAM 1231L.

DRAM2663 Acting II (Sp) (Formerly DRAM 4603) Advanced theories and techniques of acting. Prerequisite: DRAM 1223 and DRAM 1683.

DRAM3001 Production Practicum (Sp, Su, Fa) Credit for participation in technical assignments related to courses in scenic, costume, or directing. Minimum 80 hour per production. Assignments shall be determined by the faculty. Credit will be awarded only after completion of assignments and only with faculty approval. May be repeated up to 4 hours. May be repeated for up to 4 hours of degree credit.

DRAM3011 Performance Practicum (Sp, Su, Fa) Credit for performance in faculty directed productions; one credit per hour production. Assignments shall be determined by the faculty. Credit will be awarded only after satisfactory completion of assignment and with faculty approval. May be repeated for up to 4 hours of degree credit.

DRAM3213 Costume Design I (Odd years, Fa) Study of the art and practice of stage costume design. Emphasis on the expression of character through costume. Development of rendering and research skills. Prerequisite: DRAM 1213, DRAM 1311, and DRAM 1313.

DRAM3243 Costume Technology I (Odd years, Sp) Advanced methods of costume construction techniques and the exploration of theatrical pattern drafting will be practiced through projects. Prerequisite: DRAM 1313.

DRAM3433 Stage Speech (Sp, Su, Fa) An introduction to the basic skills of speech, voice production and communication for performance and broadcasting. Special focus on General American speech and the characteristics of speech regionalism. The course will explore breath control, resonance, articulation, pitch, volume, voice quality and stress management. Prerequisite: DRAM 1683.

DRAM3653 Directing I (Sp) Basic principles and techniques of play directing with an emphasis on the modern realistic mode of production. Corequisite: Drama majors with at least junior standing. Prerequisite: DRAM 1223, DRAM 1312 and DRAM 1313.

DRAM3683 Stage Management (Odd years, Fa) Principles of stage management in the context of academic and professional theatre production. Issues of theatre management and producing as they relate to play production activities. Prerequisite: DRAM 1223, DRAM 1313 and DRAM 1323.

DRAM3733 Stage Lighting I (Even years, Fa) An introduction to the basic skills of lighting, electrical and dimming systems; problems in design. Lecture-demonstration 3 hours, laboratory, by arrangement, coinciding with departmental productions, 3 hours per week.
Prerequisite: DRAM 1323, DRAM 1321L, and DRAM 2131.

DRAM3803 Development of the Drama (Sp, Fa) An introduction to the dramatic techniques of ancient Greece and drama. This course investigates various paradigms for understanding drama across traditional period boundaries. Readings include a cross-section of literary and performance theories, focusing upon the classical to the post-modern. Prerequisite: DRAM 1223.

DRAM3823 Script Interpretation (Irregular) Techniques for making sense of playwrights and finding their theatrical demands, including basic objective/active action structuring, use of the fictional and functional models of the text, imagery analysis, linguistic individuation, and indirect modes of meaning. Each student focuses on one script for the full term. Prerequisites: DRAM 1223 and DRAM 3803.

DRAM3903 Theatrical Makeup (Even Years, Fa) The techniques and skills of theatrical makeup and design involved in the creation and execution of character makeup for the theatre. Prerequisite: DRAM 1323.

DRAM3923H Honors Colloquium (Sp, Su, Fa) Treats a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in drama).

DRAM399VH Honors Course (Sp, Su, Fa) (1-6) Junior standing. May be repeated for up to 12 hours of degree credit.

DRAM4003 Stage Combat (Fa) (1-3) A workshop course for students who wish to attempt original work in the dramatic form. Prerequisite: Junior standing. May be repeated for up to 9 hours of degree credit.

DRAM4123 History of Theatre Performance (Sp, Su, Fa) Principles and techniques of performing a singing role for the theatre. Examines the relationship between score and text. May be repeated for up to 6 hours of degree credit. DRAM4121H History of Theatre I (Fa) A survey of dramatic literature, theatre practices and cultural contexts for dramatic presentation from classical Greece through the Restoration. Prerequisite: DRAM 1223.

DRAM4333 History of the Theatre II (Sp) A survey of dramatic literature, theatre practices and cultural contexts for dramatic presentation from the 18th century to the mid-20th century. Emphasis is given to Western theatre practices. Prerequisite: DRAM 1223 or 4121H.

DRAM4453 History of the Theatre III (Sp) An examination of history and theory of modern theatrical styles. DRAM4483 African American Theatre History -- 1950 to Present (Sp) A chronological examination of African-American theatre history from 1950 to the present through the study of African-American plays and political/social conditions. Upon completion of this course the student should be familiar with the major works of African-American theatre and have a deeper understanding of American history. (Same as AAST 496V)

DRAM4653 Scene Design I (Odd years, Sp) Theory and practice of scene design, including historical and contemporary styles and procedures. Practical experience gained through work on departmental productions. Prerequisite: DRAM 1323, DRAM 1321L, and DRAM 2131.

DRAM4773 Acting Shakespeare (Irregular) Work on the special techniques required for performance of the plays of special techniques required for performance of the plays of Shakespeare and his contemporaries. The cultural and theatrical context required for understanding the scripts. Special attention to the speaking of blank verse. DRAM490V Independent Study (Sp, Su, Fa) (1-3) Individually designed and conducted programs of reading and reporting under the guidance of a faculty member. DRAM491V Special Topics (Sp, Su, Fa) (1-3) Classes not listed in the regular curriculum, offered on demand to fulfill the special needs of a small group of students. DRAM4953 Theatre Study in Britain (Sp, Su, Fa) Study of the components of stage production through atten- ding and critiquing a wide variety of classical, modern, and avant garde theatre productions in England; includes tours of London and historical British sites and seminars with British theatre practitioners. DRAM5123 Theatrical Design Rendering Techniques (Sp, Su, Fa) Investigation of drawing and painting methods and materials useful to theatrical designers. Integrates the concept of visualization and development of concept realization. Rendering and conceptualization will be explored through examination of various theatrical styles and periods. DRAM5143 History of Decor for the Stage (Even Years, Sp) An overview of architectural decoration and scenic properties with an emphasis on the application to theatrical design from the Pre dynastic Period (4400-3200 B.C.) through the Art Deco period with references to contemporary decor. Prerequisite: Graduate standing. DRAM5163 Stage Lighting Technology (Irregular) Advanced study of theatre drafting, drawing and rendering techniques and model making. Graduate level project portfolio required.

DRAM5183 Costume Design Studio (Fa) Individual and advanced projects in designing scenery for various theatrical genres as well as non-theatrical applications with emphasis on the design process involving playwrights, analysis, text analysis, and research. Collaboration skills and advanced rendering techniques will be explored. Contributions to on-going portfolio development. Prerequisite: DRAM 3653 or instructor consent. May be repeated for up to 6 hours of degree credit.

DRAM5193 Scene Technique Studio (Sp) Individual and advanced projects in scenic techniques with emphasis on scene on stage painting, drawing, rendering, properties design and scenic properties as determined by student need. Contributions to on-going portfolio development. Prerequisite: Graduate standing or instructor consent. May be repeated for up to 9 hours of degree credit.

DRAM5213 Costume in Discuss (Odd years, Fa) Advanced study of the art and practice of stage costume design. Emphasis on the expression of character through costume. Development of rendering and research skills. Portfolio development. Prerequisite: DRAM 2133.

DRAM5243 Costume Technique I (Odd years, Sp) Advanced methods of costume construction techniques and the practice of theatrical pattern drafting will be explored through practical projects.

DRAM5253 Costume Technique II (Even Years, Sp) Advanced study in methods of costume construction and pattern making techniques with emphasis on tailoring, draping, corsetry and costumes as determined by student needs. Prerequisites: DRAM 3243 and DRAM 5243.

DRAM5283 Costume Design Studio (Fa) Individual and advanced projects in designing costumes for various theatrical genera with an emphasis on the design process involving text interpretation, character analysis, and research. Collaboration skills and advanced rendering techniques will be explored. Contributions to on-going portfolio development. Prerequisite: Graduate standing or instructor consent. May be repeated for up to 9 hours of degree credit.

DRAM5333 Lighting III (Sp, Su, Fa) Advanced study of design, technology and production development collaboration involved in lighting at the professional level. Theatre, screen and architectural venues will be examined. Dance, musical theatre, legitimate drama and related lighting situations will be explored through class projects and laboratory exercises. Prerequisite: Graduate standing.

DRAM5353 Stage Lighting Technology (Sp, Su, Fa) The thorough examination of the technology of equipment that supports the art of stage lighting design: theory, operating principles and specification of lamps, fixtures, control systems and special effects hardware will be explored. Prerequisite: Graduate standing.

DRAM5363 Theatre Planning (Irregular) A study of significant theatre buildings, modern and historical, and their relationship to contemporary theatre planning. Practicum application of theory through design problems and evaluation. Graduate level research project/paper required.

DRAM5373 Theatre Management (Irregular) Comprehensive study of theatrical business/personnel budget, audience development, operations and organization for professional, academic and community theatre and related performance areas. Practical application through actual pro-duction experience in the University Theatre. Graduate level research paper required.

DRAM5453 Lighting Technology Studio (Sp) Individual and advanced projects in lighting technology with emphasis on light sources, lighting control, equipment design and specification and the mechanics of lighting. Contributions to on-going portfolio development. Prerequisite: Graduate standing or instructor consent. May be repeated for up to 9 hours of degree credit.

DRAM5393 Lighting Design Studio (Fa) Individual projects in lighting design with emphasis on the design process involving script interpretation, design aesthetics and research. Lighting design applications to a variety of venues will be studied. Contributions to on-going portfolio development. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

DRAM5413 Graduate Acting Principles (Sp, Su, Fa) An intensive study and practical application of acting techniques. Emphasizes the integration of the physical, emotional, and intellectual life of the character through work on monologues, scenes and exercises. Prerequisite: Graduate standing in Drama.

DRAM5423 Graduate Stage Speech (Sp, Su, Fa) Focus will be on enabling the body’s natural breathing mechanism to provide strong vocal support. Freedom from unnecessary tension, resonance, articulation and vocal hygiene will also be explored. Contributions to on-going portfolio design. Prerequisite: Graduate standing. May be repeated for up to 4 hours of degree credit.

DRAM5443 Graduate Acting: Period Styles (Sp) Shakespeare in relation to French and Italian Middle and Later Renaissance Literature (16th-19th Centuries). This course also examines the historical and cultural influences that shaped each genre. A period dance component is included. Prerequisite: Graduate standing.

DRAM5453 Musical Theatre Performance (Sp, Su, Fa) Theory and techniques of performing a singing role for the theatre. Integrates acting and vocal techniques and examines the relationship between score and text. Prerequisite: Graduate standing in Drama.

DRAM5456 Audition Techniques (Sp, Su, Fa) A thorough study and practical application of audition skills and techniques. This course will equip the student with advanced audition pieces and experience in cold reading, on-camera work and improvisation. The course also explores the practi- cal needs of the actor; from how to get an audition to how to prepare a resume. Prerequisite: Graduate standing in Drama.

DRAM5473 Graduate Acting: Shakespeare (Sp, Su, Fa) Analysis of Shakespeare for performance. Work will include the plays of Shakespeare and his contempo- raries, including cultural and theatrical elements that matter for understanding the scripts. Prerequisite: Graduate standing in Drama.

DRAM5503 Research Techniques in Drama (Fa) Broadening awareness of research approaches in the field of Theatre and Theatre with consideration of the necessary interplay of intellectual and intuitive skills in mature artistry. Practice in the logical, semantic, and evidential work of scholarship and in the use of research methodologies.

DRAM5523 Graduate Playwriting: Non-Realism (Sp, Su, Fa) Advanced technique and theory in playwrit- ing emphasizing non-traditional playwriting styles such as Expressionism, Surrealism, Epic Theatre and the American Musical. Prerequisite: Graduate standing.

DRAM5533 Graduate Playwriting: Special Projects (Sp, Su, Fa) Advanced study and practice in the area of playwriting. The area of concentration will be determined by the student’s specific writing project(s). Prereq- site: Graduate standing. May be repeated for up to 6 hours of degree credit.

DRAM5613 Graduate Directing Principles (Sp, Su, Fa) Theory and technique of directing realistic drama: script analysis; spatial considerations of composition and picturization; development in production of the Aristotelian concepts of plot, character, theme, diction, music (sound), and spectacle. Prerequisite: Graduate standing.

DRAM562V Seminar in Dramatic Art (Sp, Su, Fa) (1-9) Research, discussion and projects focusing on a variety of topics including theatre management, advanced acting methods, and specialized periods in dramatic literature. Prerequisite: Senior or graduate standing. May be repeated for up to 9 hours of degree credit.

DRAM5713 Graduate Directing: Non-Realism (Sp, Su, Fa) Theory and techniques of directing in non- realistic modes. Scene study in the areas of Classical Drama, Expressionism, Epic Theatre, Epic Realism and tempo-
Course Descriptions

C2371N A History of South America (Sp, Su) (3)
Welcome to South America! Students will be guided through the history of the countries that comprise South America, from the pre-Columbian civilizations to the present day. The course will explore the political, economic, and cultural developments that have shaped the region, and will examine the challenges and opportunities that lie ahead for South America in the 21st century.

ECON2013 Principles of Macroeconomics (Sp, Su, Fa) Macroeconomic analysis, including aggregate employment, income, fiscal and monetary policy, growth and business cycles. Prerequisite: (MATHE 1203 or higher) or (MATHE 1204 or higher). ECON2023 Principles of Microeconomics (Sp, Su, Fa) Microeconomic analysis, including market structures, supply and demand, production costs, price and output, and international economics. Prerequisite: (MATHE 1203 or higher) or (MATHE 1204 or higher) OR (MATHE 1205 or higher). ECON2143 Basic Economics-Theory and Practice (Sp, Su, Fa) Surveys basic micro, macro principles and analytical tools needed to study contemporary economic problems such as inflation, unemployment, poverty, and pollution. Not open to students majoring in Economics or Business Administration.

ECON3003 Microeconomic Theory (Sp, Su, Fa) Nature, scope, and purpose of economic analysis; theories of demand; production, cost, firm behavior, allocation of resources, and market structures. Prerequisite: (ECON 2143 or ECON 2143) or ECON 2431 and MATH 2443 and MATH 2554.

ECON3053 Economics for Elementary Teachers (Fa) Focuses on the role of economics in elementary schools. acquaints students with basic concepts and functioning of the American economic system. Not open to students majoring in Economics or Business Administration. Prerequisite: All students must have completed at least 60 hours of coursework.

ECON3133 Macroeconomic Theory (Sp, Fa) Theoretical determinations of national aggregate employment, income, consumption, investment, output, price level, etc. Prerequisite: (ECON 2143 or ECON 2143) or ECON 2143.

ECON3153 Economics of Electronic Commerce (Irregular) A combination of concepts from microeconomics, industrial organization, and macroeconomics in examining how electronic markets and the use of information impact economic activity. The course combines theoretical models, field data and cases to explore the issues of pricing strategy, network externalities, institutional structures and market competitiveness, and information-related consumer behavior. Prerequisite: (ECON 2143 or ECON 2143) or ECON 2143.

ECON3333 Public Finance (Irregular) Governmental functions, revenues; tax shifting, incidence, public expenditures, their effects; and fiscal policy. Prerequisite: (ECON 2143 or ECON 2143) or ECON 2143.

ECON3353 Law and Economics (Irregular) The use of economic tools to analyze public policy issues and explore the intersections of economics and law and economics. The course will provide students with an understanding of legal institutions, incentives they generate and issues surrounding current legal reforms. Prerequisite: ECON 2023 or ECON 2143.

ECON3434 Money and Banking (Irregular) Financial history, financial institutions; theory of practice and income; monetary policy in theory and practice. Prerequisite: ECON 2143 and ECON 2143.

ECON3533 Labor Economics (Fa) Economic analysis of labor markets. Topics include analysis of labor demand and supply; human capital investment; wage differentials; discrimination; economic effects of labor unions and collective bargaining; public sector labor markets; unemployment; and labor market effects on inflation. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3733 Advanced International Economics (Irregular) An examination of the role of national and international institutions in fostering development. Prerequisite: (ECON 2143 or ECON 2143) or ECON 2143.


ECON3853 Emerging Markets (Irregular) An analysis of the business and economic environment in emerging economies, focusing on Latin America, South East Asia, and Transition Economies. The topics and issues covered include market structure and market failures, financial and legal background, current institutions and political economy issues, and current business opportunities. Prerequisite: (ECON 2013 or ECON 2023) or ECON 2143.

ECON3933 The Japanese Economic System (Sp) This class presents essential facts about the Japanese economy, and then subjects them to critical and analytical analyses. Japanese institutions and policies are contrasted with their American counterparts, and these economies are compared in terms of performance. Current issues including contemporary economic conditions in Japan and US-Japan trade relations are also examined. Prerequisite: ECON 2013 or ECON 2143.

ECON399VH Honors Course (Irregular) (1-3) Primarily for students participating in Honors Program. May be repeated for up to 6 hours of degree credit.

ECON4003H Honors Economics Colloquium (Irregular) Explores events, concepts and/or new developments in the field of Economics. Prerequisite: Senior standing.

ECON4003 History of Economic Thought (Sp) Historical, critical analysis of economic theories relative to their historical and functional background. Prerequisite: (ECON 2013 or ECON 2023) or ECON 2143 or ECON 3053.

ECON410V Special Topics in Economics (Irregular) (1-5) Covers special topics in economics not available in other classes. Prerequisite: (ECON 2013 or ECON 2023) or ECON 2143. May be repeated for up to 6 hours of degree credit.

ECON4143 Information Economics (Irregular) A combination of concepts from finance, industrial organization, and economic theory, and most likely to be familiar with information economics actors in information-resource use, and the role of information in decision-making. The course combines theoretical models and cases to explore the role of information in economic theory and policy. Prerequisite: ECON 2143 or ECON 2143.

ECON4333 Economics of Organizations (Fa) An economic perspective on the design of organizations. Applies developments in game theory and contract theory to analyze the role of information and incentives within and between firms. Covers the boundaries of firms, integration and attrition, authority and incentives, and alternative organizational structures in economic theory. Prerequisite: ECON 2013 or ECON 2023 or ECON 2143.

ECON4334 Experimental Economics (Sp) The course offers an introduction to the field of experimental economics. Included are experiments associated with developing, conducting, and analyzing controlled laboratory experiments. Standard behavioral results are examined and the implications of such behavior for business and economic theory explored. Prerequisite: ECON 2013 or ECON 2143.

ECON450V Independent Study (Irregular) (1-6) Permits students on individual basis to explore selected topics in economics. May be repeated for up to 6 hours of degree credit.

ECON4633 International Trade Policy (Sp, Fa) Problems of the international economy from a macroeconomic perspective. Topics include analysis of the pattern and content of trade; trade in factors of production; and the applications of trade theory to the study of trade barriers such as tariffs and quotas. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON4643 International Macroeconomics and Finance (Sp, Fa) Problems of the international economy from a macroeconomic perspective. Topics include analysis of the pattern and content of trade; trade in factors of production; and the applications of trade theory to the study of trade barriers such as tariffs and quotas. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON4653 Global Competition and Strategy (Irregular) Applies concepts from microeconomics and organizational behavior to competition in national and international business environments. Topics include industry analysis, competitive advantage, entry, competitive pricing, commitment, antitrust, exit, vertical integration, R&D,
develop a working knowledge of policymaking frameworks to examine major education policy issues of current interest and debate key policy issues that arise at the local, state, and federal government.

EDFD6403 Educational Statistics and Data Processing (Sp, Su, Fa) Theory and application of frequency distributions, graphical methods, central tendency, variance, simple regression and correlation indexes, chi-square, sampling, and parameter estimation, and hypothesis testing. Use of the computer for the organization, reduction, and analysis of data (required of doctoral candidates). Prerequisite: EDFD 5103 or equivalent.

EDLE5013 School Organization and Administration (Fa and Odd years, Su) Analysis of structure and organization of American public education: fundamental principles of school management and administration.

EDLE5023 The School Principalship (Sp, Su) Duties and responsibilities of the public school building administrator; examination and analysis of problems, issues, and current trends in the theory and practice of the principalship.

EDLE5053 School Law (Fa and Odd years) Legal aspects of public and private schooling: federal and state legislative statutes and judicial decisions, with emphasis on the development and interpretation of educational laws.

EDLE5063 Instructional Leadership, Planning, and Supervision (Fa and Odd years) Instruc
tional Leadership, Planning, and Supervision is designed to prepare practitioners to seize the educational leader at the school site level through the development of a vision that will be used to drive a data driven instructional school plan.

EDLE5093 Effective Leadership for School Improvement (Sp, Su, Fa) Performance based examination of strategic planning, group facilitation and decision-making, organizational behavior and development, professional ethics and standards, student services administration, and principles of effective leadership.

EDLE5163 Current Educational Issues (Irregular) Current problems, issues, and trends facing school administrators in Arkansas and the nation.

EDLE574V Internship (Sp, Su, Fa) (1-6) Supervised in-school/district experiences individually designed to afford opportunities to apply previously-acquired knowledge and skills in administrative workplace settings. May be repeated for up to 3 hours of degree credit.

EDDF509V Seminar (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

EDLE6023 School Facilities Planning and Management (Odd years) Facilities planning, management, cost analysis, operations, and maintenance of the school plant.

EDLE6053 School-Community Relations (Even years) Community analysis and implications of modern education; power groups and influences; school issues and public responses; local policy development and implementation; effective communication and public relations strategies.

EDLE606V Independent Study (Sp, Su) (1-18) Satisfactory completion of an approved topic or area of study.

EDLE6093 School District Governance: The Superintendent (Even years, Fa) Analysis of the organizational and governance structures of American public education at national, state, and local levels.

EDLE6103 School Finance (Odd years, Sp) Principles, issues and problems of school funding and fiscal allocations to school districts.

EDLE6173 School Business Management (Odd years, Su) Fiscal and resource management in public schools: budgeting, insurance, purchasing, and accounting.

EDLE6333 Advanced Fiscal and Legal Issues in Education (Odd years, Sp) The examination and discussion of advanced legal and fiscal issues affecting public school education. Prerequisite: Advanced graduate standing.

EDLE6503 Topics in Educational Research for School Administration (Odd years, Fa) Application of educational research in the school setting by educational administrators. Emphasis placed on the use of state and local school or district data, data analysis, interpretation and reporting, hands-on experience with SPSS, and the formal process of writing a research report. Prerequisite: Advanced graduate standing.

EDLE6523 Advanced Application of Educational Leadership (Odd years, Sp) The examination and discussion of contemporary and current works on leadership as applied to the educational setting. Provides knowledge of classic and contemporary strategies for leadership.
EDLE6533 Educational Policy (Odd years, Sp)
Examination of the research and theory related to the evolution of educational systems and the governance of the public school system, and the development of policies at the local, state, and federal levels. Emphasis is placed on the relationship between research and educational policy. Topics include: educational finance; educational access; educational equity; and educational accountability.

EDLE6563 Educational Administration and Human Behavior (Odd years, Fa)
Examination of the research and theory related to the utilization of human resources with educational organizations.

EDLE500V Workshop (Sp, Su, Fa) (1-6) May be repeated for up to 12 hours of degree credit.

EDLE674V Internship (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

EDLE680V Educational Specialist Project (Sp, Su, Fa) (1-6) An original project, research proposal, or examination of a problem. May be repeated for up to 6 hours of degree credit.

EDUC100V Freshman Seminar (Irregular) (1-3)
The course is designed to introduce and assist freshmen in making successful, self-directed learners. Focus will be on campus resources to help learners accomplish this goal and on strategies for successful learning. May be repeated for up to 3 hours of degree credit.

EDUC201V General Humanities Core (Sp, Fa) (1)
An examination of the development of Western civilization and the role of the humanities as a unitary discipline.

EDUC220V Multicultural Perspectives (Irregular) (1-3)
Examination of the role of race, gender, and class in the development of the United States and the world.

EDUC300V Introduction to Educational Leadership (Fa) (3)
An introduction to educational leadership, including the roles of the principal, the school board, and other school leaders in the educational process.

EDUC310V Theory and Practice of Education (Sp) (3)
An examination of the theories and practices of education, including the role of the teacher, the role of the student, and the role of the educational system.

EDUC400V Professional Work Experience (Sp, Fa) (1-6)
An opportunity for students to gain practical experience in the field of education.

EDUC420V Special Topics (Irregular) (1-18)
An opportunity for advanced students to undertake special projects in the field of education.

EDUC430V Seminar in Education Accountability Policy (Sp) (3)
This course will train students to engage in and evaluate research on education accountability at the K-12 level.

EDRE6433 Seminar in Education Leadership Policy (Fa) This course will train students to engage in and evaluate research on the effective leadership of schools and school systems.

EDRE6453 Seminar in Teacher Quality and Public Policy (Sp) Examines how our public system of education has come to engage in life-long learning. The course will outline the various technical areas encompassed within Educational Leadership discipline. The course will also emphasize on Academic Affairs and issues. Corequisites: ELEG1201L, Electrics I Laboratory (Fa). Experimental investigation of the steady-state behavior of resistive circuits excited by DC sources and transient behavior of simple R, L, and C circuits. Topics include fundamental laws of circuit theory applied to resistive networks and time response functions of R-L-R-C circuits. Corequisite: ELEG 2103.

EDLE6411L Digital Systems Laboratory I (Irregular)
Experimental investigations into digital integrated circuits (IC's) use in combinations or sequential or functional logic. Topics also include terminal properties of IC's and use of schematic capture and digital circuits simulator software. Corequisite: ELEG 2903.

EDLE6433 Seminar in Education Accountability Policy (Sp) This course is among the field course requirements for the Department of Education Reform’s proposed Ph.D. in Education Policy.

EDLE6443 Seminar in Education Leadership Policy (Fa) This course will train students to engage in and evaluate research on the effective leadership of schools and school systems.

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ELEG4143 Stochastic Signal Processing (Fa) Review of system analysis, probability, random variables, stochastic processes, auto correlation, power spectral density, systems with random inputs in the time and frequency domain, and applications. Pre- or Corequisite: ELEG 3123.

ELEG4203 Semiconductor Devices (Irregular) Crystal defects, semiconductors, bands and charge carriers in semiconductors, excess carriers in semiconductors, analysis and design of p/n junctions, analysis and design of bipolar junction transistors, and analysis and design of field-effect transistors. Prerequisite: MATH 3404.

ELEG4223 Design and Fabrication of Solar Cells (Irregular) Solar irradiation and its spectral distribution; p/n junction solar cells; solar cell fabrication using computer-assisted analysis and design techniques, module power distribution systems, including distribution substations, primary and secondary circuits. Distribution transformer and capacitor applications, voltage regulation, and distribution system protection. Prerequisite: ELEG 4203.

ELEG4233 Introduction to Integrated Circuit Design (Irregular) Design and layout of large scale digital integrated circuits using NMOS and CMOS technology. Topics include MOS devices and basic circuits, integrated circuit layout and fabrication, dynamic logic circuit, design layout, and design strategies for large scale NMOS and CMOS circuits. Prerequisite: ELEG 3213.

ELEG4603 Electric Power Distribution Systems (Irregular) Theory and design techniques for linear and analog power distribution systems, including distribution substations, primary and secondary circuits. Distribution transformer and capacitor applications, voltage regulation, and distribution system protection. Prerequisite: ELEG 4203.


ELEG4623 Communication Systems (Irregular) Various modulation systems: antennas, communications, AM and FM fundamentals, pulse modulation, signal to noise ratio, threshold in FM, the phase locked loop, matched filter detection, probability of error in FSK, FSK, and DPSK. The effects of quantization and thermal noise in digital systems. Information theory and coding. Prerequisite: ELEG 3143.

ELEG4723 Introduction to RF and Microwave Design (Irregular) An introduction to microwave design principles and introduction to microwave components and systems. Impedance matching filters, dividers, and hybrids will be discussed in detail. Active microwave devices will also be introduced. In addition, the applications of this technology as it relates to various integrated circuit systems will be reviewed. Prerequisite: ELEG 3703.

ELEG4733 Introduction to Antennas (Irregular) Basic antenna types: small dipoles, half wave dipoles, image theory, monopoles, and antenna arrays. A far field array, uniformly excited equally spaced arrays, pattern multiplication principles, nonlinearly excited arrays, phased arrays. Use of MATLAB programming and mathematical techniques for antenna analysis and design. Emphasis will be on using simulation to visualize variety of antenna radiation patterns. Prerequisite: ELEG 3703.

ELEG4702 Special Topics in Biological Tissues (Irregular) Understand the electric and magnetic response of biological tissues with particular reference to neural and cardiovascular systems. Passive and active forms of electric signals in cell communication. We will develop the central electrical mechanisms from the membrane channel to the organ, building on those excitation, dielectric models for tissue behavior, Deybe. Cole-Cole models. Role of bound and free water in tissue. Capacitance of tissues. Experimental methods to measure tissue response. Applications to Electrocardiography & Electroneurography. Microwave Medical Imaging, RF Ablation will be discussed that are present in neural cells in the body. Analysis of Nernst equation, Goldman equation, linear cable theory, and Hodgkin-Huxely Model of action potential generation and propagation. High frequency response of tissues to microwave radiation. Prerequisite: MATH 3404 or equivalent; basic Biology. (Same as EGEN 4283)

ELEG487V Special Topics in Electrical Engineering (Irregular) (1-3) Consideration of current electrical engineering topics not covered in other courses. Prerequisites: Senior standing. May be repeated for up to 6 hours of degree credit.

ELEG488V Special Problems (Sp, Su, Fa) (1-3) Individual study and research on a topic mutually agreed upon by the student and a faculty member. Prerequisite: Senior standing. May be repeated for up to 3 hours of degree credit.

ELEG4963 CPLD/FPGA Based System Design (Irregular) Field Programmable Logic devices (FPGAs/ CPLDs) have become extremely popular as basic building blocks for digital systems. They offer a general architecture that users can customize by inducing permanent or reversible physical changes. This course will deal with the implementation of logic options using these devices. Corequisite: Lab component. Prerequisite: ELEG 2913. (Same as CSCE 4303)

ELEG4983 Computer Architecture (Irregular) Design of a single board computer including basic computer organization, memory subsystem design, peripheral interfacing, DMA control, interrupt control, and bus organization. Prerequisite: ELEC 4723.


ELEG5163 Advanced Microcontroller Design Project (Irregular) Use of development systems as an aid to microcontroller design; the student is expected to build, and test a microcontroller system to perform a specified task. Corequisite: Lab component. Prerequisite: ELEG 3923.

ELEG5173L Digital Signal Processing Laboratory (Irregular) Familiarization with, and use of, advanced DSP processors. Parallel processor configurations, timing consideration, specialized programming techniques, and complex pipelines. Prerequisite: ELEG 4203.

ELEG5213 Integrated Circuit Fabrication Technology (Irregular) Theory and techniques of integrated circuit fabrication technology; crystal growth, chemical vapor deposition, impurity diffusion, oxidation, ion implantation, photolithography and metalization. Design and analysis of development systems using SUPREM IV, CD SEM, contour analysis, resin analysis techniques. Student review papers and presentations on state of the art fabrication and device technology. Prerequisite: ELEG 4203.

ELEG5233 Solid State Electronics I (Irregular) Theoretical treatment of crystal structures and lattices, quantum and statistical mechanics, thermal properties of crystals, free-electron theory of metals and quantum theory of electrons in periodic lattices. Prerequisite: ELEG 4203 and PHYS 3614 and PHYS 3611.

ELEG5243L Microelectronic Fabrication Techniques and Procedures (Sp, Fa) The Thin-Film Fabrication course is designed to prepare students to use the thin-film equipment and processes available at the Engineering Research Center’s thin-film cleanroom. The process modules to be trained on include lithography, metal deposition and etching, oxidation, deposition, dry etching, tantalum anodization, photodefinable spin-on dielectric and electroplating. The related metrology modules include microscope inspection, spectrophotometric measurement of oxide, profilometry and four-point probe measurement. Prerequisite: ELEG 5273.

ELEG5253L Integrated Circuit Design Laboratory I (Irregular) Design and layout of large scale digital integrated circuits. Students develop and simulate digital integrated circuits which will be fabricated and tested in I.C. Design Laboratory II. Topics include computer-aided design, more in-depth coverage of topics from ELEG 4233, and testing of very large scale chips. Prerequisite: ELEG 4233 and ELEG 4203.

ELEG5253L Integrated Circuit Design Laboratory II (Irregular) Students test the I.C. chips they designed in ELEG 5253L Design Laboratory I and perform circuit experiments where needed. Topics include gate arrays, bipolar design, I2L, memory design, and microprocessor design. Prerequisite: ELEG 5253L.

ELEG5273L Electronic Packaging (Irregular) An introductory treatment of electronic packaging, from single chip to multichip, including materials, substrates, electrical design, thermal design, mechanical design, package modeling and simulation, and processing considerations. Credit cannot be earned for both MEEG 5273 and ELEG 5403. Prerequisite: (ELEG 3213 or ELEG 3913) and MATH 3304. (Same as MEEG 5273)

ELEG5283 Mixed Signal Test Engineering II (Irregular) Focus calibration, DAC testing, ADC testing, DIB design, Design for Test, Data Analysis, and Test Economics. Prerequisite: ELEG 4283.

ELEG5293L Integrated Circuits Fabrication Laboratory (Irregular) Experimentation and design with standard silicon oxidation, solid-state diffusion, photolithographic materials and techniques, bonding and encapsulation. Fabrication and testing of PIN diodes, NPN transistors and MOS transistors. Prerequisite: ELEG 5213.

ELEG5313 Power Semiconductor Devices (Irregular) Carrier transport physics; breakdown phenomena in semiconductor devices; power bipolar transistors, thyristors, thyristor power control, semiconductor diodes, field-effect transistors, power metal-oxide-semiconductor field-effect transistors, and power MOS-bipolar devices. Prerequisite: ELEG 4203.
ELEG5323 Semiconductor Nanostructures I (Irregular) This course is focused on the basic theoretical and experimental aspects of two-dimensional systems encountered in semiconductor heterojunctions and nanostructures with an emphasis on device applications and innovations. Prerequisite: ELEG 4203 or instructor permission.

ELEG5333 Semiconductor Nanostructures II (Irregular) This course is a continuation of ELEG 5323 Nanostructures I. It is focused on the transport properties, growth, electrical and optical properties of semiconductor nanostructures, and optoelectronic devices. Prerequisite: ELEG 5323 or instructor permission.

ELEG5403 Systems Theory (Irregular) A unified state-space approach to continuous and discrete systems. System theory, stability, existence of solutions, reachability, and global behavior of systems. Prerequisite: ELEG 4403.

ELEG5423 Optimal Control Systems (Irregular) Basic concepts, conditions for optimality, the minimum principle, the Hamilton-Jacobi equation, structure and properties of optimal systems. Prerequisite: ELEG 4403.


ELEG5463 Biomedical Control Systems (Irregular) Systems analysis and design as applied to human physiological systems. Modeling and dynamics of biological processes, biomedical sensors, time and frequency domain analysis, identification of physiological systems. Overview of equipment, device regulations. Prerequisite: ELEG 4403 or equivalent.

ELEG5473 Intelligent Transportation Systems (Irregular) Engineering challenges in current surface transportation. The ITS concept. Review of current electrical, communication, and computer technologies. Applications to traffic surveillance, traveler information, traffic management, transit management, incident management, automatic toll collection, and intelligent agents. Prerequisite: Senior or graduate standing in engineering.

ELEG5533 Power Electronics and Motor Drives (Irregular) V1. Experience of insulated Gate Bipolar Transistor (IGBT) prototypes. Experience of Insulated Gate Thyrists (IGTs). Basic concepts of device operation of driver and snubber circuits, induction, permanent magnet, and brushless d-motor drives; and resonant inverters. Prerequisite: Graduate standing or ELEG 3223 and ELEG 3003.


ELEG5603 Wireless Data Communications (Irregular) Comprehensive course in the emerging field of wireless data communications. Focused on upper layer protocols for wireless data transmission. Topics include wireless cellular system infrastructures, wireless circuit data, wireless packet data, mobile IP, and various existing and soon-to-be available wireless data systems and technologies. Prerequisite: Graduate standing.

ELEG5613 Introduction to Telecommunications (Irregular) Overview of public and private telecommunications systems; traffic engineering; communications systems basics, information technology, electromagnetics, and data transmission. Prerequisite: ELEG Graduate Standing on ELEG 3133. (Same as CENG 5613)

ELEG5633 Detection and Estimation (Irregular) Binary and multiple decisions for single and multiple observations; detection, estimation, composite, and non-parametric decision theory; estimation theory; sequential, non-linear, and state estimation; optimum receiver principles. Prerequisite: Graduate standing.

ELEG5653 Artificial Neural Networks (Irregular) Fundamentals of artificial neural networks, both theory and practice. Teaching and learning algorithms. Nonlinear and unsupervised learning, and how they are implemented using artificial neural networks. Topics include the perceptron, back propagation, the competitive Hamming net, self organizing feature maps, and adaptive resonance theory. Prerequisite: MATH 3403.


ELEG5693 Wireless Communications (Irregular) Comprehensive course in fast fading field of wireless mobile/cellular/personal telecommunications. Topics include cellular system structures, mobile radio propagation channels, etc. Prerequisite: Graduate standing.

ELEG5713 Antennas and Radiation (Irregular) Radio frequency antennas, control of radiation patterns, antenna impedance and antenna feeding systems. Prerequisite: ELEG 3703.

ELEG5723 Advanced Microwave Design (Irregular) This course is an advanced course in microwave design building on the introduction to microwave design course. A detailed discussion of active devices, biasing networks, mixers, oscillators, and RF amplifiers. Integrated Circuits (MMIC), and wideband matching networks will be provided. In addition, a number of advanced circuits will be analyzed. Prerequisite: ELEG 3703 and ELEG 4723.

ELEG5743 Antennas (Irregular) Methods of discrimination and ambiguity in the measurement of range, angle and velocity. Analysis of search, tracking, MTI, SLAR, and SAR systems. Characterization of return from complex targets. Prerequisite: ELEG 3703.

ELEG5753 Advanced Electromagnetic Scattering & Transmission (Irregular) Reflection and transmission of electromagnetic waves from a flat interface, the Foyting theorems, and wave propagation. Solutions to rectangular, wave guides, TE and TM modes, radiation from antennas in free space and introduction to computational electromagnetic principles. Prerequisite: ELEG 3703.

ELEG5773 Electronic Response of Biological Tissues (Irregular) Understand the electric and magnetic response of biological tissues with particular reference to neural and cardiovascular systems. Passive and active forms of electronic tissue models are applied to the central nervous system and the auditory nerve. Prerequisites: Senior or graduate standing.

ELEG5793 Advanced Electromagnetic Theory (Irregular) Topics in electromagnetic theory to include reflection, transmission, and complex physical situations including the study of electromagnetic waves and fields in dispersive and anisotropic media. Emphasis will be placed on the application of Maxwell’s equations to boundary value problems. Prerequisite: ELEG 4723.

ELEG5801 Graduate Seminar (Sp, Su, Fa) Papers presented by candidates for the Master of Science degree in electrical engineering on design problems, or new developments in the field of electrical engineering. Prerequisites: ELEG 5773. ELEG 5790 or PHYS 5341. BIOL 2533. Prerequisite: Graduate standing.

ELEG5803 Special Topics in Electrical Engineering (Irregular) Consideration of current electrical engineering topics not covered in other courses. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

ELEG5804 Special Problems (Sp, Su, Fa) (1-6) Opportunity for individual study of advanced subjects related to a graduate electrical engineering program to suit individual interests. May be repeated for up to 6 hours of degree credit.

ELEG600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

ELEG6233 Solid State Electronics II (Irregular) In-depth theoretical treatment of semiconductor material and device physics. Topics to be covered include carrier statistics, transport behavior, bulk material properties, junction characteristics and metal-semiconductor contacts. Prerequisite: ELEG 5233.

ELEG6273 Advanced Electronic Packaging (Irregular) An advanced treatment of electronic packaging technologies and their applications. Topics included in packaging technologies include packaging substrate materials, finishes, lamination, and test, assembly technology, and reliability testing. Prerequisite: ELEG 5273. (Same as MEEG 6273)

ELEG6801 Graduate Seminar (Sp, Su, Fa) Papers presented by candidates for the Doctor of Philosophy degree in electrical engineering on current research or design problems in the field of electrical engineering. Prerequisites: ELEG 5273. (1-18)

Environmental Dynamics (ENDY) ENDY5043 GIS Analysis and Modeling (Odd years, Sp) Advanced raster topics are examined with a theoretical and methodological review of Tomin's cartographic modeling principles. Topics vary and include fourier methods, image processing, kriging, spatial statistics, principal components, fuzzy and regression modeling, and multi-criteria decision models. Several raster GIS programs are used to present these topics. Prerequisite: (ANTH 4553 or GEOG 4553) or equivalent.

ENDY5053 Quaternary Environments (Fa) An interdisciplinary study of the Quaternary Period including dating techniques, palaeoenvironments, microwear, climate change, sea-level change, and the origins of human culture. Prerequisites: Graduate standing. (Same as ANTH 5053)

ENDY5063 Paleoclimatology (Sp) The earth’s climate history over the last 2 million years and the influence of various factors have had on plant and animal evolution. Topics include climatic and environmental changes, climate change, air pollution, deforestation, desertification, wetland loss urbanization, and the biodiversity crisis. The U.S. Global Change Research Program is also examined. Prerequisites: Graduate standing. (Same as GEOG 5135)

ENDY5153 Environmental Site Assessment (Irregular) Principles, problems, and methods related to conducting an environmental site assessment. An applied course covering field site assessment techniques, hazard identification, and report preparation. Prerequisite: GEOL 4033. (Same as GEOG 5153)

ENDY5853 Environmental Isotope Geochemistry (Irregular) In-depth coverage of the principles of isotope fractionation and distribution in geological environments isotopic analytical methods, and extraction of isotope samples; applications of isotopes in characterization of geologic processes and their interactions with hydrologic, surficial, and biologic systems; and paleothermometry soil and biochemical processes. Prerequisite: GEOL 5063 or GEOG 5263. (Same as GEOG 5853)

ENDY6013 Environmental Dynamics (Irregular) An in-depth course for graduate students focusing on techniques of global change including paleoclimate reconstruction, climate change, air pollution, deforestation, desertification, wetland loss, urbanization, and the biodiversity crisis. Prerequisites: May be repeated for up to 6 hours of degree credit.

ENDY6023 Seminar in Environmental Dynamics (Irregular) Seminar examining specific contemporary topics in environmental sciences. Topics will change with each offering. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

ENDY602V Current Topics Seminar (Irregular) (1-2) Various aspects of the environment will be explored through topic specific seminars. Subject matter will change each semester. Prerequisites: Current environmental issues and research. Seminars will be one or two credit hour. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

ENDY6033 Society and Environment (Sp) This course examines the complex interrelationships between human societies and the natural environment. Drawing on diverse and interdisciplinary perspectives in anthropology, archaeology, history, geography, and palaeo-environmental studies, readings and discussion will explore the co-production of social and environmental systems over time. (Same as ANTH 6033)

Course Descriptions
ENGL1003 Basic Writing (Sp, Fa) A required course for first-time entering freshmen whose placement-test scores indicate that they are not prepared for ENGL 1013. Upon the recommendation of the Department of English, students may possibly be exempted from this course and transferred to ENGL 1013 as the result of further testing during the first week of classes. Credit earned in this course may not be applied toward a degree.

ENGL1001 Reading Strategies for College Students (Sp, Su, Fa) The course focuses on developing reading and learning skills and strategies essential for college success. Required for first-time entering freshmen as a condition for degree credit. Required for all freshmen unless exempted by the Department of English. Prerequisite is an acceptable score on the English section of the ACT or another approved test or ENGL 0003. Pre-requisite: English 0003 or an acceptable score on the English section of the ACT or another approved test.

ENGL1023 Survey of American Literature from 1700 to 1900 (Sp, Fa) Prerequisite: ENGL 1013 and ENGL 1023. A survey of American literature from the colonial period to the early 20th century. Prerequisites: ENGL 1013 and ENGL 1023.

ENGL335 Survey of Modern American Literature (Sp, Fa) A critical and historical survey of works by one or more major American writers from the colonial period to the present. Prerequisite: ENGL 1013 and ENGL 1023.

ENGL335 Survey of Postcolonial Literature and Culture (Irregular) Study of a broad topical area related to postcolonial literature and culture. Content varies. May be repeated up to 9 hours of degree credit. Prerequisite: ENGL 1013 and ENGL 1023.

ENGL335A Topics in Postcolonial Literature and Culture to 1900 (Irregular) Study of the works of American literature and culture to 1900, with attention to particular themes, genres, authors, or other organizing principles. Content varies. May be repeated up to 9 hours of degree credit. Prerequisite: ENGL 1013 and ENGL 1023.

ENGL335B Topics in Postcolonial Literature and Culture 1900 to 1990 (Irregular) A study of American literature and culture to 1990, with attention to particular themes, genres, authors, or other organizing principles. Content varies. May be repeated up to 9 hours of degree credit. Prerequisite: ENGL 1013 and ENGL 1023.

ENGL335C Topics in Postcolonial Literature and Culture to 1990 (Irregular) A study of the works of American literature and culture to 1990, with attention to particular themes, genres, authors, or other organizing principles. Content varies. May be repeated up to 9 hours of degree credit. Prerequisite: ENGL 1013 and ENGL 1023.

ENGL335D Topics in Postcolonial Literature and Culture (Irregular) Survey of a broad topical area related to postcolonial literature and culture. Content varies. May be repeated for up to 9 hours of degree credit. Prerequisite: ENGL 1013 and ENGL 1023.

ENGL335E Topics in Postcolonial Literature and Culture (Irregular) Survey of a broad topical area related to postcolonial literature and culture. Content varies. May be repeated for up to 9 hours of degree credit. Prerequisite: ENGL 1013 and ENGL 1023.
Course Descriptions

ENGL4603 Special Studies (Irregular) Concentrated study of a specific topical area related to literature and culture but not necessarily encompassed by the curriculum. Content varies. May be repeated for up to 9 hours of degree credit.

ENGL498V Senior Thesis (Irregular) (1-6) Research to completion. Designed for graduate assistants at the University of Arkansas.

ENGL5013 Creative Writing Workshop (Irregular) Writing workshop: Fiction (Irregular) Problems of translation and the role of the translator as both scholar and creative writer; involves primarily the discussion in workshop of the translations of poetry, drama, and fiction done by the students, some emphasis upon comparative studies of existing translations of well-known works. Primary material will vary. Prerequisite: reading knowledge of a foreign language and one of English 3003 or 3004. May be repeated for up to 15 hours of degree credit.

ENGL507V Creative Non-Fiction Workshop (Irregular) (1-3) The theory and practice of the "New Journalism" with an emphasis on how to combine and specialize attention to the use of "fictional" techniques and narrator point of view to make more vivid the account of real people and real events.

ENGL5083 Professing Literature (Irregular) An introduction to the theories of literary scholarship and the teaching of literature at the college level.

ENGL510V Readings in English and American Literature (Irregular) (1-6) Open to Honors candidates and graduate students.

ENGL5173 Studies in Medieval Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL5183 The Structure of Present English (Sp) Structural analysis of the language.

ENGL5203 Introduction to Graduate Studies (Irregular) Students learn to carry out and report on literary research. Practical assignments introduce them to the reference collections, professional journals, and microform texts with which scholars work. Meanwhile, advanced explication and critical analysis exercises work on perfecting the students' control over the design and style of the articles they write.

ENGL5223 Studies in Renaissance Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL5233 Form and Theory of Translation (Irregular) An examination of the principal challenges that confront translators, including the recreation of style, dialect, and formal poetry; vertical translation; translation where multiple manuscripts exist; and the question of how literal a translation should be. (Same as WLT 5233)

ENGL5243 Special Topics (Irregular) An advanced introductory survey of a number of theoretical approaches to literature.

ENGL5403 Studies in Nineteenth-Century British Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL5603 World Literature and Culture in English (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5623 The Bible as Literature (Irregular) The several translations of the Bible; its qualities as great literature; its influence upon literature in English; types of literary forms. (Same as REL 5263) May be repeated for up to 12 hours of degree credit.

ENGL5633 English Drama from Its Beginning to 1642 (Irregular) Early forms, Tudor drama, Shake-speare’s contemporaries, and Stuart drama to the closing of the theatres.

ENGL5653 Shakespeare: Plays and Poems (Irregular) ENGL569V Seminar in Film Studies (Irregular) (1-6) Research, discussion; papers on a variety of film genres and areas including the new American film, the science-fiction film, directors, film comedy, the experimental film, criticism, the film musical. (Same as COMM 566V) May be repeated for up to 12 hours of degree credit.

ENGL5703 Studies in American Literature and Culture Before 1900 (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL5723 Studies in Literature and Culture of the American South (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL5803 Studies in Twentieth-Century American Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL5933 Seminar in Renaissance Literature and Culture in English (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6203 Seminar in Renaissance Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6223 The Bible as Literature (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6443 Seminar in Medieval Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6513 Seminar in Twentieth-Century British Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6513 Seminar in World Literature and Culture in English (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6713 Seminar in Restoration and Eighteenth-Century British Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6723 Seminar in American Literature and Culture Before 1900 (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6733 Seminar in Literature and Culture of the American South (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6803 Seminar in Twentieth-Century American Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6933 Seminar in Popular Culture and Popular Genres (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6943 Seminar in Literary Theory (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6953 Seminar in Literary History (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL6973 Seminar in Rhetoric and Composition (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated. May be repeated for up to 12 hours of degree credit.

ENGL698V Master’s Thesis (Sp, Su, Fa) (1-6) ENGL699V Master of Fine Arts Thesis (Sp, Su, Fa) (1-6)

ENGL700V Doctoral Dissertation (Sp, Su, Fa) (1-18)

Environmental Science (ENSC)

ENSC1001L Environmental Science Laboratory (Odd years, Fa) Laboratory, field trip, and laboratory exercises covering the concepts and information allowing students to critically evaluate environmental issues. Topics will include: laboratory safety, recycling, composting, geographic information systems, soil testing, water quality, hazardous waste disposal, wetlands, wastewater treatment, and sustainable food systems. Laboratory 2 hours/week. Prerequisite or Corequisite: ENSC 1003. ENSC1003 Environmental Science (Fa) Series of lectures and discussions introducing the topics of environmental science including factors related to water, soil, and air quality. May not be taken for natural science credit by students in Fulbright College.

ENSC3003 Introduction to Water Science (Fa) Properties, occurrence, and description of the types, functions, quality and quantity, potential contaminants, uses, and guiding policies and regulations of the various water resources in the environment. Prerequisite: ENGL 1023 and ENSC 1003 or CHEM 1053 or higher or GEOL 1113 or higher or Biol 1543.

ENSC3103 Plants and Environmental Restoration (Odd years, Fa) Selection, establishment, and use of plants to promote soil stabilization, water quality, and wildlife habitat. Principles and practices of managing plants for soil management, nutrient and water cycling, and restoration of plant communities. Prerequisite: CSES 1203 or HORT 2003 or BIOL 1613.

ENSC322L Ecosystems Assessment Laboratory (Even years, Fa) The purpose of this laboratory is to complement concepts learned in lecture by carrying out experiments that familiarize students with methods used in soil and aquatic ecology. Students will collect samples, ana-
lyze and interpret data obtained from soil and water samples. Lab will meet once per week for 3 hours. Corequisite: ENSC 3520.

ENSC3223 Ecosystems Assessment (Even years, Fa) Application of ecological principles for EWS majors and college students interested in environmental science.

Applications of the basic ecological principles of organisms, populations, communities, and ecosystems to gain an appreciation for how large scale patterns in terrestrial and aquatic ecosystems are influenced by small scale interactions among individuals (microorganisms to invertebrate macroorganisms) and between individuals and their local environment. Lecture 3 hours per week. Corequisite: ENSC 3221L. Prerequisite: BIOL 1543, CSES 2003, and ENSC 3003.


ENSC3413 Principles of Environmental Economics (Sp) An introductory, issues-oriented course in the economics of the environment. What is involved in society making decisions about environmental quality will be studied. Environmental issues important to the State of Arkansas and the United States will be emphasized. Prerequisite: AGEC 1101 or ECON 2025. (Same as AGEC 3413).

ENSC3635 Environmental Science (Odd Years, Sp) Provide instruction on the uses of GIS techniques in solving practical environmental and agricultural land use problems. Areas include: 1) an introduction to spatial variability in soils with an emphasis on the application of GIS techniques to map and understand spatial parameters important to different land uses, and 2) development of individual experience in the use of GIS in solving environmental and agricultural problems using an oral and written term project. Corequisite: CSES 2003.

ENSC3933 Environmental Ethics (Odd years, Sp) The course addresses ethical questions about nature and the natural environment. Topics of discussion include anthropocentric and biocentric ethics, population control, obligations to future generations, animal rights, moral considerability, Leo-pold’s land ethic, deep ecology, and ecosophy. Lecture/ discussion 3 hours per week. Prerequisite: ENSC 1003 or PHIL 2033 or PHIL 2103.

ENSC400V Special Problems (Sp, Su, Fa) (1-3) Work on special problems in environmental science or related fields. Prerequisite: permission of instructor. A maximum of 8 hours of credit. ENSC4023 Water Quality (Fa) Physical, chemical, and biological characteristics of natural waters (rain, river, lake, soil, ground, etc.). Discussion of water quality parameters such as pH, alkalinity and acidity, redox, hardness, BOD, TSS, etc. aquatic processes of pollutants and principles of modeling. Laboratory experiments in water sampling, measurement of water quality parameters, and instrumentation. Component: lab component. Prerequisite: CHEM 1123 and CHEM 2112L.

ENSC4034 Analysis of Environmental Con-taminants (Even years, Sp) Methods of analysis for inorganic and organic contaminants, radioisotopes and microorganisms in soil and water. Quality assurance and quality control, sampling protocols, sample handling, instrumentation and data analysis. Lecture 2 hours and laboratory 4 hours per week. Co-Req: Lab component. Prerequisite: CSES 2003 and ENSC 3003.

ENSC404V Special Topics (Irregular) (1-3) Studies of selected topics in environmental sciences not available in other courses. May be repeated for up to 12 hours of degree credit. ENSC4263 Environmental Soil Science (Even years, Sp) Study of the behavior of pesticides, toxic organic compounds, metals, nutrients, and pathogenic microorganisms in the soil/soilwater continuum. Lecture 3 hours per week. Prerequisite: CSES 3214.

Entomology (ENTO)

ENTO1023 Insects and People (Sp) Appreciation of the insects and their roles in nature and in civilization for students not required to take ENTO 3013. Biological, historical, social, economic, cultural, and medical aspects of insects are discussed. Emphasizes appreciation of entomology and employs many visual aids. Lecture 3 hours per week. ENTO1023T Library/Laboratory Studies in Ento-mology (Sp) A systematic survey and identification of insects and other arthropods occurring in woodland, aquatic and agricultural environments with emphasis on identification and observation of insects in their natural settings. Laboratory 2 hours per week. Corequisite: ENTO 1023.

ENTO3013 Insect Physiology (Fa) Fundamentals of structure, function, biology and identification of insects; typical procedures in control of representative spe-cies. Insect collection required. Lecture 2 hours, laboratory 2 hours a week. Corequisite: ENTO 1023. Prerequisite: BIOL 1543 and BIOL 1544L. Corequisite: Lab component.

ENTO400V Special Problems (Sp, Su, Fa) (1-4) ENTO4013 Insect Behavior and Chemical Ecol-ogy (Even years, Sp) Basic concepts in insect behavior and patterns of behavioral responses to various environmental stim-uli. Previous knowledge of basic entomology is helpful, but not required. Lecture 2 hours, laboratory/discussion 2 hours per week. Corequisite: Lab component.

ENTO4024 Insect Diversity and Taxonomy (Fa) Principles and practices of insect classification and identi-fication with emphasis on adult insects. Corequisite: Lab component.

ENTO4043 Apiculture (Odd years, Sp) Review of social behavior of insects and its exemplification in Honey-bees. Previous knowledge of basic entomology is helpful but not required. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

ENTO4053 Insect Ecology (Even years, Fa) To develop understanding of important ecological concepts through study of specific insects and their environment. To become familiar with the literature of insect ecology, and interpretation and critique of ecological research. Previous knowledge of basic entomology and/or ecology will be helpful. Prerequisite: Lab component.

ENTO410V Special Topics (Irregular) (1-3) Special Topics course available to both undergraduate and graduate students, to address emerging issues and timely topics. This course would supplement our graduate-only special topics course. ENTO4123 Insect Pest Management (Odd years, Sp) Study of principles and concept of insect pest manage-ment. Areas covered include survey of arthropod pests and damage, population dynamics, damage thresholds, physiological units, prediction models, surveillance, arthropod sampling, strategies and tactics utilized to maintain pest populations below economic injury levels. Prerequisite: ENTO 3011.

ENTO4133 Advanced Applied Entomology (Even years, Fa) A study of the most important pests of humans and their belongings. The course topics include pest ident-i-fication, biology, survey and sampling methods, computer models, economic injury levels and economic thresholds. Lecture 2 hours/week and laboratory 2 hours/week. Corequi-site: Lab component. Prerequisite: ENTO 3013.

ENTO462V Internship (Irregular) (3-6) Supervised practical work experience in pest management to develop and demonstrate professional competence. A maximum of 6 hours credit per semester or summer session is permitted. Faculty approval required prior to enrollment, and written or oral reports are required.

ENTO500V Special Problems (Sp, Su, Fa) (1-4) Prerequisite: graduate standing. May be repeated for up to 4 hours of degree credit. ENSC5013 Morphology of Insects (Odd years, Fa) Origin, evolution, and functional significance of external insect structure. Structure and function of major internal systems. Previous knowledge of basic entomology is helpful, but not required. Lecture 2 hours, laboratory 4 hours per week. Corequisite: Lab component.

ENTO511V Special Topics (Irregular) (1-4) Topics not covered in other courses or a more intensive study of spe-cific topics in entomology. Prerequisite: graduate standing. ENTO5123 Biological Control (Even years, Fa) Theoretical and practical basis for biological control of arthropod pests and weeds via parasites, predators, and pathogens. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

ENTO5133 Applied Molecular Genetics (Even years, Sp) A course in the use of current molecular genetics techniques used in agricultural research including molecular diagnostics and population genetics. Students will learn how to apply advanced molecular genetic methodologies and In-ternet based molecular databases that are available for their research. Prerequisite: ANSC 3123.

ENTO600V Master’s Thesis (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit. ENSC5223 Water Quality  (Fa) Previous knowledge of basic entomology is helpful, but not required. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component.

ENTO6263 Insect Toxicology (Odd years, Fa) Toxicology of chemicals to insects and humans including techniques of testing collecting data, and factors that influ-ence reactions to different classes of insecticides. Previous knowledge of organic physiological insecticides is helpful, but not required. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component.

ENTO700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: graduate standing.

Ed Ed Stats & Research Methods (ESRM)

ESRM5013 Research Methods in Education (Sp, Fa) General orientation course which considers the nature of research problems in education and the techniques used by investigators in solving those problems. Prerequisite: graduate standing.

ESRM5393 Statistics in Education and Health Professions (Sp, Fa) Applied statistics course for Master's degree candidates. Introduces and describes techniques for frequency distributions, graphing techniques, mea-sures of central tendency and variation, sampling, hypothesis testing, and interpretation of statistical results.

ESRM6533 Educational Assessment (Irregu-lar) Introduction to measurement issues and basic test theory. Focus on types and usage of assessment tools, data management, and analysis of educational data. Practical training in the utilization and interpretation of academic achievement data in Arkansas.

ESRM660V Master’s Thesis (Sp, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

ESRM606V Independent Study (Sp, Su, Fa) (1-6) ESRM6413 Experimental Design in Education (Sp) Principles of experimental design as applied to educational situations. Special emphasis on analysis of vari-ance techniques used in educational research. Prerequisite: ESRM 6403 or equivalent.

ESRM6423 Multiple Regression Techniques for Education (Fa) Introduction to multiple regression pro-cedures for analyzing data as applied in educational settings, including multicollinearity, dummy variables, analysis of covari-ance, curvilinear regression, and path analysis. Prerequisite: ESRM 6403.

ESRM6432 Multivariate Applied Multivariate Statistics (Sp) Multivariate statistical procedures as applied to educational research settings including discriminant analysis, principal components analysis, factor analysis, canonical correlation, and cluster analysis. Emphasis on use of existing computer statistical packages. Prerequisite: ESRM 6413.

ESRM6616 Advanced Experimental Design (Irregular) Advanced topics of the general linear model, including multivariate, MANOVA, analysis of linear and non-linear models. A course in multivariate statistical analysis with a focus on developing the mathematical and theoretical basis for these methods. Prerequisite: ESRM 6413.

ESRM6623 Advanced Multiple Regression (Irregular) Advanced topics of computational research methods, including logistic regression and path analysis with a focus on developing the mathematical and theoretical basis for these advanced methodological designs. Prerequisite: ESRM 6423.

ESRM6633 Qualitative Research (Sp, Fa) Introduc-tion of non-quantitative methods, including data collection through interviews, field observation, records research, internal and external validity problems in qualitative research. Prerequisite: ESRM 6403.

ESRM6643 Advanced Qualitative Research (Sp) Preparation for the conduct of qualitative research, structur-ing, literature reviews, data collection and analysis, and re-porting results. Prerequisite: ESRM 6533. May be repeated for up to 6 hours of degree credit.

ESRM6553 Advanced Multivariate Statistics (Irregular) Explores the foundation provided in Multivari-ate and introduces techniques that extend methodological elements of canonical, discriminant, factor analytic, and longitudinal analyses, providing the mathematical and theo-retical foundations necessary for these designs. Prerequisite: ESRM 6453.

ESRM6613 Evaluation of Policies, Programs, and Projects (Fa) Introduction to evaluation in social science
Course Descriptions

ETEC5201 Educational Technology (Sp, Su, Fa) A criterion-based course designed to provide beginning technology leaders with knowledge and skills in the area of fundamental computer technology and traditional educational media. Grades are determined by total points earned on successful completion of identified course units, with quizzes, homework, and 1 proficiency final examination. Corequisite: ETEC 2002L.


ETEC5062 Teaching and Learning with Computer-based Technologies (Su) Provides students with opportunities to engage in collaborative learning about a variety of topics related to using computer-based teaching technologies to meet instructional objectives in content area classrooms. Prerequisite: ETEC 2003.

ETEC5183 Internet in the K-12 Classroom (Irregular) This course prepares teachers to be informed consumers of Internet technology; plan appropriate and effective Internet activities for their learners; and understand their responsibilities regarding electronic media, communication, and the Internet in the classroom. Prerequisite: Graduate standing.

ETEC5213 Introduction to Educational Media (Sp, Su, Fa) Introduces students to the design and development of educational materials, and equipment. Prerequisite: Graduate standing.

ETEC5243 Instructional Design Theory & Models (Fa) Students learn how technological development programs pertain to the design and production of instructional materials which use modern technologies. Goal analysis, objectives, evaluation, instructional strategy development, production of educational products, and revision of the instructional materials are considered. Prerequisite: Graduate standing.

ETEC5253 Information Technologies (Irregular) Students perform intensive examinations of the role of new technologies and their implications for instructional practice. Emphasis is on identification and evaluation of new technologies in instructional environments. Establishing and maintaining learning environments, exploring selected theories and concepts, assessing potential uses of IT, and utilization of new technologies will occur.

ETEC5263 Grant Writing in Instructional Technology (Sp, Su, Fa) Students will have an opportunity to gain a basic understanding of the planning and design of a grant proposal. Grant writing, and the acquisition and utilization of potential funding sources, will be covered. The class will focus particularly on those countries that are current members of the EU and on possible future entrants.

ETEC5269V Seminar (Irregular) This seminar is designed to enhance the established educational technology curriculum by providing students with special topic content and classroom experiences under the guidance of a faculty mentor. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

ETEC5600V Master’s Thesis (Sp, Su, Fa) Individualized and conducted studies of educational technology under the guidance of a faculty mentor. Negotiated learning contract with supervising faculty required before enrollment. On-campus supervision required. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

ETEC6223 Strategic Planning and IDT Programs (Sp, Su, Fa) The course offers readings and experiences intended to develop strategic planning knowledge, values, attitudes, skills, and abilities necessary for practiccal planning and technol- ogy leaders. Topics covered include strategic planning and leadership.

ETEC6253 Principles in Visual Literacy (Irregular) Students gain understanding of visual literacy research and learn to create graphics that support learning. Literature in the area of visual literacy and learning theories as well as tools that facilitate effective visual literacy will be used to create visuals that are clear, communicate well, and help enhance learner performance.

ETEC65373 Web Design (Irregular) Students design, create, and analyze Web sites by applying processes, standards and techniques used to identify audience target audience; ensure compliance with copyright and disability laws, measure effectiveness, and design Web sites. Topics include copyright and fair use, user and task analysis, usability, accessibility, testing, search engine optimization, and web analytics. May be repeated for up to 3 hours of degree credit.

FDSC1101 Food Science Orientation (Fa) This course is designed as an overview of the basic physical and human geography of Europe, will cover the basic physical and human geography of Europe, focusing on food constituents, additives, labeling, environmental issues, food regulations, and food safety. Lecture 2 hours per week for 8 weeks.

FDSC1113 Introduction to Food Science (Sp) This course is designed to provide students with a general understanding of the food industry, the nature of food products, and the principles and practices related to food science and food safety. Discussions will focus on food processing operations. Lecture/discussion/ laboratory, 3 hours per week.

FDSC2503 Food Safety and Sanitation (Fa) Principles of sanitation, cleaners and sanitizers, sanitization and plant design, and control in food processing operations. Lecture/discussion/demonstrations, 3 hours per week.

FDSC2523 Sanitation and Safety in Food Processing Operations (Sp) Topics covered include understanding and control of microbial, chemical, and physical food hazards as well as emerging food safety issues. This course will include a unit on food processing and sanitation, and an understanding of food safety and sanitation processes. Bioterrorism and food safety will also be discussed. (On-line course)

FDSC3101 Principles of Food Processing (Even years, Fa) The course is designed as an overview of the food processing operations common to all types of food processing plants. Examples will be drawn from international food processing operations, and to food safety issues. Discussion will include control of food safety and food safety practices. This course offers readings and experiences intended to develop strategic planning knowledge, values, attitudes, skills, and abilities necessary for practical planning and technology leaders. Topics covered include strategic planning and leadership.

FDSC3103 Principles of Extension Teaching (Irregular) An understanding of the principles of teaching and learning, selection, and use of teaching methods and materials with emphasis on the role of extension as a part of the community education system. Prerequisite: EXED 3023 or permission of instructor.

FDSC4183 Management of Volunteer Programs (Irregular) Recruiting, training, management, evaluation, and recognition of volunteers in agricultural-related agencies, non-profit organizations, community groups, and advisory committees. Prerequisite: Junior standing.

FDSC475V Internship in Extension (Sp, Su, Fa) (3-6) A supervised practical work experience in Cooperative Extension which is designed to give the student an insight into the role of Extension employees and an opportunity to gain professional competence in this area. Prerequisite: Junior standing and EXED 3023. May be repeated for up to 6 hours of degree credit.

FDSC5113 Extension Organization and Administration (Irregular) Program and personnel administration for planning and management of county extension programs. Emphasis will be given to organization, structures, principles, planning processes, program implementation, and evaluation. Prerequisites: ETEC 2002L, FDSC 1011, and 1 hour of degree credit.

FDSC6111 Food Science Orientation (Fa) Introduces food science as a unique program offering exciting career opportunities. This course emphasizes the importance of science in processing and preservation of food and discusses current topics and issues. Provides sound, basic information on food constituents, additives, labeling, environmental issues, food regulations, and food safety. Lecture 2 hours per week for 8 weeks.

FDSC6113 Introduction to Food Science (Sp) This course is designed to provide students with a general application and understanding of the food industry, the nature of food products, and the principles and practices related to food science and food safety. Discussions will focus on food processing operations. Lecture/discussion/demonstrations, 3 hours per week.

FDSC6223 Sanitation and Safety in Food Processing Operations (Sp) (3-6) A supervised practical work experience in cooperative extension which is designed to give the student an insight into the role of Extension employees and an opportunity to gain professional competence in this area. Prerequisite: Junior standing and EXED 3023. May be repeated for up to 6 hours of degree credit.

FDSC6303 Principles of Food Processing (Even years, Fa) The course is designed as an overview of the food processing operations common to all types of food processing plants. Examples will be drawn from international food processing operations, and to food safety issues. Discussion will include control of food safety and food safety practices. This course offers readings and experiences intended to develop strategic planning knowledge, values, attitudes, skills, and abilities necessary for practical planning and technology leaders. Topics covered include understanding and control of microbial, chemical, and physical food hazards as well as emerging food safety issues. This course will include a unit on food processing and sanitation, and an understanding of food safety and sanitation processes. Bioterrorism and food safety will also be discussed. (On-line course)

FDSC6313 Extension Organization and Administration (Irregular) Program and personnel administration for planning and management of county extension programs. Emphasis will be given to organization, structures, principles, planning processes, program implementation, and evaluation. Prerequisites: ETEC 2002L, FDSC 1011, and 1 hour of degree credit.
of food processing operations and includes strengthening students’ written communications and critical thinking skills. Corequisite: Lab component.

FDSC3753 Introduction to Food Engineering Principles (Sp) Web-based course designed to give students a perspective of how engineering principles are used in foods and will be restructured to reflect the application of food engineering principles to real-world food processing situations. Students will develop an understanding of the basics of unit systems, mass balances, fluid rheology, fluid flow, heat transfer, and thermal processing. Prerequisite: MATH 1285 or equivalent or consent of instructor.

FDSC400V Special Problems (Sp, Su, Fa) (1-4) Investigation of assigned problems in food science. Prerequisite: Junior standing.

FDSC4114 Food Analysis (Even years, Sp) Method of analysis, instrumentation, and laboratory techniques for measuring the chemical composition of raw and value-added products. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: CHEM 1123 and CHEM 1121L and CHEM 2613 and CHEM 2611L or (CHEM 3603 and CHEM 3601L).

FDSC4124 Food Microbiology (Sp) Microbiology, contamination, preservation, and spoilage of different kinds of foods, food poisoning, sanitation, control, and inspection; microbiology of water; and standard methods for official food and public health laboratories. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: BIOL 2013 and BIOL 2011L and CHEM 1123 and CHEM 1121L. (Same as BIOL 4124)

FDSC4128 Food Analysis and Control (Even years, Fa) Definition of grades and standards of quality by chemical, physical, and sensory techniques. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CHEM 1123 and CHEM 1121L.

FDSC4304 Food Chemistry (Fa) Water, carbohydrates, lipids, proteins, vitamins, and minerals in foods; biochemical and functional properties; enzymes, food additives (emulsifiers, pigments, colors, flavors, preservatives, and sweeteners) and texture as related to properties in food systems and during processing. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: CHEM 1123 and CHEM 1121L.

FDSC6133 Food Lipid Chemistry (Even years, Fa) Chemistry and technology of commercial fats and oils in food systems with discussion of lipid changes affecting food quality and human health. Prerequisite: FDSC 4304 and FDSC 4114.

FDSC6323 Nutraceuticals and Functional Foods (Even years, Sp) Course will include past, present and future of nutraceuticals and functional foods, chemistry, mechanism, novel technologies, nutrigenomics, processing, healthy lifestyle, regulation, safety, marketing, international aspects, and industry project. Prerequisite: CHEM 2613 or CHEM 3603 and CHEM 3813 and FDSC 4304 or instructor consent.

FDSC6333 Food Protein Chemistry and Functionality (Odd years, Fa) This course is a study in advanced food protein chemistry, including molecular structures, characterization of food protein functionality, structure-function relationship, processing technologies to improve functionality, as well as hands-on experiences with timely, practical projects related to food proteins. Lecture and problem-solving projects for 3 hours per week. Pre/corequisite: FDSC 4304.

FDSC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) The doctoral program in food science is an interdisciplinary program offered by the departments of Food Science, Animal and Poultry Sciences, and Human Environmental Sciences. Prerequisite: Graduate standing.

FDSC509V Special Problems Research (Sp, Su, Fa) (1-4) Original investigation on assigned problems in food science. Prerequisite: Graduate standing.

FDSC5503 Safety and Sanitation for the Food Industry (Sp) This web-based course will provide an appreciation of the need for sanitation in food processing and increase the students’ knowledge of sanitary techniques. Topics will include contamination sources, plant and equipment design, cleaners and sanitizers, HACCP, and food biosecurity. Also covered will be considerations in selecting, establishing, and maintaining a sanitation program. Prerequisites: General Microbiology or Food Microbiology; General Chemistry.

FDSC5603 Enology (Even years, Fa) Examination of factors influencing wine grape quality with emphasis on wine and grape regions, grape composition, and fermentation. Lecture/discussion 3 hours per week. Prerequisite: CHEM 3813.

FDSC5703 Fermented Foods (Odd years, Fa) Examination of factors influencing the fermentation of food and beverage, and methods to control the microbiological stability and quality of these products. Lecture/discussion 3 hours per week. Prerequisite: CHEM 3813 and FDSC 4124.

FDSC600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

FDSC602V Special Topics (Irregular) (1-3) Discussions focused on selected topics of particular fields of raw product physiology and food processing, chemistry, physiology, microbiology, evaluation, sensory analysis and preservation. Prerequisite: Graduate standing.

FDSC6033 Food Biochemistry (Even years, Sp) Biochemical characteristics, functions, regulation and impact of components of food products of plant origin. Lecture/discussion 3 hours per week. Prerequisite: CHEM 3813.

FDSC6123 Food Carbohydrate Chemistry (Odd years, Fa) Topics include cereal and processed foods; carbohydrates, sweeteners, and sugar alcohols; food starches and sweeteners; and texture as related to properties in food systems and during processing. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CHEM 1123 and CHEM 1121L.

FDSC6381 Food Analysis and Control (Odd years, Fa) This course includes applied statistical methods for measuring the chemical composition of raw and value-added products. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: STAT 2303 or WCOB 1033 or AGST 4023 or STAT 2023 or MATH 1285.

FDSC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) The doctoral program in food science is an interdisciplinary program offered by the departments of Food Science, Animal and Poultry Sciences, and Human Environmental Sciences. Prerequisite: Graduate standing.

FINN4153 Portfolio Management II (Sp) This course applies modern investment theory to the practical management of the Rebsamen Trust. Students prepare a statement of investment objectives, recommend an asset allocation strategy based on a quantitative analysis of asset class returns, alpha contributions, and beta contributions, and present an investment policy statement. Classes are organized as management meetings and visits to investment firms are an important part of the class. Selection is by invitation. Prerequisite: ACCT 3723 and FINN 3063 and consent of instructor.

FINN4153 Portfolio Management II (Sp) This course is a continuation of FINN 4143. Topics covered include technical analysis, dynamic asset allocation and derivative
strategies. Visits to major investments firms and organized exchanges in New York City or other locations are generally planned or approved by the department. Prerequisite: FINN 4143.

FINN4163 Fixed Income Securities I (Fa) The markets and institutional settings of fixed income securities; valuation and risk analysis of money market and capital market instruments; strategies and management of bond portfolios; taxable and tax-exempt securities; U.S. and non-U.S. fixed income securities; term structure of interest rate; and interest rate derivatives as hedging tools. Prerequisite: FINN 3013 or 4023.

FINN4173 Fixed Income Securities II (Sp) Continuation of FINN 4163. The markets and institutional settings of fixed income securities; valuation, and risk analysis of money market and capital market instruments; strategies and management of bond portfolios; taxable and tax-exempt securities; U.S. and non-U.S. fixed income securities; term structure of interest rate; and interest rate derivatives as hedging tools. Prerequisite: FINN 4163.

FINN4233 Advanced Corporate Finance (Irregular) Addresses complex and multifaceted issues and problems in financial decision-making. Prerequisite: FINN 3603.

FINN4313 Advanced Commercial Banking (Sp) Problems and cases emphasizing application of analytical tools and techniques in decision making process. Determination of operating policies regarding loans, investments, liquidity, profitability, and performance of lending, investment function; profit planning, analysis of post-management, and competition; and evaluation of bank performance. Prerequisite: FINN 3122.

FINN4333 Real Estate Investment and Appraisal (Fa) Investment analysis and valuation theory applied to real estate. Prerequisite: FINN 3933.

FINN4433 Real Estate Finance (Sp) Consideration of professional aspects of real estate. Brokerage, property management, finance, appraisal, development, current problems and developments related to real property. Prerequisite: FINN 3933.

FINN450V Independent Study (Irregular) (1-3) Permits students on an individual basis to explore selected topics in finance, with the consent of instructor.

FINN4733 Life and Health Insurance I (Fa) Basic principles and functions as applied to life and health insurance. Types of policy contracts; calculation of premiums, reserves; organization, management, supervision, of companies.

FINN4833 Property and Casualty Insurance I (Sp) Forms and functions of fire, marine, inland marine, automobile title, miscellaneous types insurance bonds for business, personal use.

FINN5223 Financial Markets & Valuation (Sp) Analysis of the market's role in the determination of security values with special emphasis on bonds and mortgages. Prerequisite: FINN 5223.

FINN5413 Shollmier Investment Project (Irregular) Provides students with the opportunity to design and apply complex investment strategies used in institutional portfolio management. Topical and functional studies in mortgages and collateralized mortgage obligations. Prerequisite: FINN 5223.

FINN5533 Investment Theory and Management (Fa) Integration of theory, practice of investments with solution of individual and institutional portfolio management problems; Institute of Chartered Financial Analysts' Problems, and also 'indigenista' works in music and the plastic arts.

FINN5570 Multinational Business Finance (Irregular) Problems pertinent to managers of firms in multinational business environments, including international institutions, risks, investments and capital budgeting. Prerequisite: FINN 5203.

FINN5633 Finance Theory (Irregular) Provides a conceptual understanding of key theoretical developments in the field of financial economics, including firm decisions under risk within a world of uncertainty.

FINN6133 Seminar in Financial Investment Theory (Sp) Study advanced literature in field investments, with special reference to theory of random walks, stock valuation models, portfolio management.

FINN6233 Seminar in Financial Management (Irregular) Financial management of firm with emphasis on financial theory or firm, quantitative methods used in financial analysis, planning.

FINN635V Special Problems in Finance (Irregular) (1-6) Case studies in investments, corporate finance, money and banking, monetary theory, international finance, public finance. By arrangement. May be repeated for up to 6 hours of degree credit.

FINN6733 Seminar in Financial Markets and Institutions (Irregular) Recent developments in the literature of financial markets and institutions. Participants will be involved in the extensive study of existing theories and empirical tests of the theories.

FINN683V Contemporary Issues in Doctoral Colloquium (Sp, Su, Fa, (1-3) To explore and evaluate contemporary issues and problems in finance. Course content to reflect the most recent developments in theory and empirical research methodologies. Prerequisite: Doctoral student status and instructor consent. May be repeated for up to 18 hours of degree credit.

FINN700V Doctoral Dissertation (Sp, Fa) (1-18) Prerequisite: Candidacy.

Foreign Languages (FLAN) Problems of translation and the role of the translator as both scholar and creative writer; involves primarily the discussion of the translations of the poetry, drama, and fiction done by the students, some emphasis upon comparative studies of existing translations of well-known works. Primary material will vary. Prerequisite: Reading knowledge of a foreign language.

FLAN5063 Teaching Foreign Languages on the College Level (Irregular) Focus on basic methodological concepts and their practical application to college foreign language instruction.

FLAN5083 Developments in Second Language Teaching (Irregular) A review of techniques, strategies, and methodologies and a survey of recent developments in second language teaching.

FLAN575V Special Investigations (Sp, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

FLAN773 Indigenismo Literature (Irregular) A study of 'indigenismo', an intellectual and literary tradition in Latin America examining the history of exploitation and marginalization of indigenous peoples. Readings include texts by Mariategui, Icaza, Andrade, Asturias, Aquedas, Castelanos, and also 'indigenista' works in music and the plastic arts.

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expression used in commercial correspondence. Prerequisite: FREN 3113.

FREN 491V Special Investigations (Sp, Fa) (1-6) FREN 5003 French Grammar and Phonetics (Irregular) Systematic review of principles of French grammar and syntax; Comprehensive presentation of French phonetics.

FREN 5003 Advanced French Conversation (Irregular) This course will provide small discussion environment in which graduate students will improve their command of spoken French in an interactive setting. Discussion will concentrate on current cultural issues in the French speaking world.

FREN 5213 French Culture & Civilization (Irregular) An analytical study of French cultural symbols and attitudes, as observed in their historical economical, political, social, educational, and linguistic aspects. FREN 5333 Old French Literature (Irregular) An intensive study of French Medieval Literature from the Chansons de Geste to Villon, including an in-depth analysis of the genres and their evolution, and of the major authors of the times.

FREN 5353 Survey of French Poetry (Irregular) A comprehensive study of French poetry from the Middle Ages to the twentieth century, focusing on close readings of individual poems. This course will cover literary movements and trends of the periods the terminology required to do explication de texte.

FREN 5433 French 16th Century Literature (Irregular) A survey of representative writers of the sixteenth century.

FREN 5543 French 17th Century Literature (Irregular) A survey of representative writers of the seventeenth century.

FREN 5603 French Short Story (Irregular) An introduction to the French short story, focusing on close readings of a variety of contes and nouvelles from the Middle Ages through the twenty-first century.

FREN 5673 French 18th Century Literature (Irregular) FREN 5703 Special Topics (Irregular) May be offered in a subject not specifically covered by the courses otherwise listed. FREN 575V Special Investigations (Irregular) (1-6)

FREN 5783 The French Nineteenth Century Novel (Irregular) FREN 5813 French 20th Century Theatre (Irregular) FREN 5833 French 20th Century Novel (Irregular) FREN 600V Master’s Thesis (Irregular) (1-6)

Geography (GEOG)

GEOG 1123 Human Geography (Sp, Su, Fa) Basic course in human geography stressing the interrelationships between the natural factors of the environment and man’s activities, especially the role of geography in the understanding of such subjects as population, land use, and political activities.

GEOG 2003 World Regional Geography (Sp, Fa) Survey of problems, development potential, and physical and human resources of the developing and developed world.

GEOG 3003 Conservation of Natural Resources (Sp, Su, Fa) Theory and growth of conservation and the wise use of the major natural resources of the United States. This course meets the requirement in conservation for teachers. Prerequisite: Junior standing.

GEOG 3033 Building Materials field Studies and Laboratory (Even Years, Sp) Study of durable building materials, their availability, strength, deterioration, limitation and utility. Historic construction techniques, identification of architectural materials, architectural elements assessment, causes and mechanisms of deterioration, conservation and treatment of architectural materials, preservation philosophies and standards and creation of a practical field identification kit will also be covered.

GEOG 3333 Oceanography (Even years, Sp) The sea, its landforms; its winds and currents as related to the atmosphere, world climates, and world trade; its basin as avenues for continental drift; its waters as habitat for plant and animal life; its marine and submarine resources as presently and potentially useful to man. Offered as physical science. Prerequisite: Junior standing.

GEOG 3343 Natural Regions of North America (Irregular) Introduces students to the characteristics of the natural environments of North America. The soils, landscapes, climate, hydrology, and flora and fauna of the principal natural regions of the United States, Canada, and Central America are examined.

GEOG 3353 Economic Geography of NAFTA (Irregular) Systematic study of the geographical distribution of economic activities in the countries of the North American Free Trade Agreement (NAFTA).

GEOG 3383 Principles of Landscape Evolution (Fa) Examines the role of waves, rivers, wind, and tectonics in shaping and modifying the surface of the earth. Considers the way in which an understanding of landscape processes is essential to the effective solution of environmental problems. Lecture 3 hours, laboratory 2 hours per week. May be repeated for up to 3 hours of degree credit.

GEOG 4040 Honors Course (Irregular) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

GEOG 4043 Geography of the Middle East (Irregular) Physical and cultural landscapes, natural and cultural resources, art and architecture, land use, political history, OPEC, and current problems of the Middle East and the Middle East region west of Afghanistan are discussed. Class participation, class slides and films, and student presentations will round out the class. Prerequisite: Junior standing.

GEOG 4046 Usan Geography (Sp) Areal patterns of modern urban development within these latter patterns are discussed. Emphasis is placed on American urban areas and their evolution and functional areas. Field work. Prerequisite: Junior standing.

GEOG 410V Special Problems in Geography (Fa) (1-6) Designed to meet the needs of students who wish to study one particular geographic topic in some detail. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

GEOG 4173 The Latin American City (Irregular) This course examines the social, political, and cultural aspects of the modern Latin American city from an interdisciplinary perspective. This course explores the development of Latin American cities from early colonial to modern times.

GEOG 4243 Political Geography (Odd years, Fa) Contemporary world political problems in their geographic context. Development of the principles of political geography with emphasis upon the problems of Eastern Europe, Africa, and Southeast Asia. Prerequisite: Junior standing.

GEOG 430V Internship in Physical Geography (Sp, Su, Fa) (3-6) Supervised experience in municipal, county, state or private natural resource management agency, or any other such organization approved by instructor. Prerequisite: 2 hours, laboratory 2 hours per week. Must be approved as a corequisite.

GEOG 4333 Elementary Geography (Sp) Examination of the atmospheric processes that result in multifarious weather systems. Offered as physical science. Prerequisite: Junior standing.

GEOG 4343 Climatology (Sp) Fundamentals of topical climatology followed by a study of regional climatology. Offered as physical science. Prerequisite: GEOG 1003 and/or GEOG 4333.

GEOG 4345 Hazard & Disaster Assessment, Mitigation, Risk & Policy (Sp) Comprehensive introduction to interdisciplinary approaches to natural and environmental hazards and risk. Hazards and disaster assessment, mitigation, and policy are the focus of the class. Prerequisite: Junior standing or above. May be repeated for up to 3 hours of degree credit.

GEOG 4783 Geography of Europe (Irregular) Geographic regions of the area with emphasis on their present development. Prerequisite: Junior standing.

GEOG 5003 Seminar in Geography (Irregular) Selected topics, the nature of which varies with the need. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

GEOG 5011 Colloquium (Sp) Weekly meetings of faculty, graduates, advanced students and guests to discuss research and trends in the field of geography. May be repeated for up to 2 hours of degree credit.

GEOG 5020 History of Geography (Even years, Sp) Chronological development of the science; leaders in geographical evolution, dynamics of atmospheres, levels in the atmosphere, the upper atmosphere, escape of atmospheres, comparative planetology of atmospheres.

GEOG 5333 Research Methods and Materials in Geography (Odd years, Fa) Geographical research and the preparation of research papers. Prerequisite: Graduate standing.

GEOG 600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

Geology (GEOI)

GEOI 1111L General Geology Laboratory (Sp, Su, Fa) Laboratory exercises concerning the identification of rocks and minerals, use of aerial photographs and topographic maps, and several field trips. Pre- or Corequisite: GEOI 1113.

GEOI 1113L General Geology (Sp, Su, Fa) Survey of geological processes and products, and their relationships to landforms, natural resources, living environments and human beings. Lecture 3 hours per week. GEOI 1111L is recommended as a corequisite.

GEOI 1131L Environmental Geology Laboratory (Sp) Laboratory exercises concerning human interactions with the physical environment including the study of earthquakes, volcanoes, flooding, erosion, mass wasting, water supply and contamination, and waste disposal. Prerequisite: GEOI 1113 and GEOI 1111L or GEOI 1003 and/or GEOI 1001L.

GEOI 1133 Environmental Geology (Sp) The application of geologic principles and knowledge of problems created by human occupancy and exploitation of the physical environment. Prerequisite: (GEOI 1113 and GEOI 1111L) or (GEOI 1003 and GEOI 1001L).

GEOI 2313 Minerals & Rocks (Fa) General principles of mineralogy and petrology, study and identification of common minerals, igneous and metamorphic rocks using hand samples. Prerequisite: GEOI 1113.

GEOI 3002 Geology for Engineers (Fa) Geologic principles involved in construction, reservoir location, etc. Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component.

GEOI 3032 Geology of Arkansas (Sp) A survey of the distribution, genesis, and age of the rocks, fossils, structural features, landforms, and geologic events of the state of Arkansas. Equivalent to two hours of lecture per week. Field trips required. Prerequisite: GEOI 1113 or GEOI 1131H.

GEOI 3114 Invertebrate Paleontology (Sp) Survey of the invertebrate phyla commonly observed as fossils emphasizing their physical and biological characteristics. Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: GEOI 1133 or (BIOL 1543 and BIOL 1541L) or equivalent.

GEOI 3313 Igneous and Metamorphic Rocks (Sp) Megascopic study and classification of igneous and metamorphic rocks. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: GEOI 2013.

GEOI 3413 Sedimentary Rocks & Fossils (Sp) An introductory study of sedimentary rocks and fossils from the standpoint of classification, field and laboratory descrip- tion, genesis, and preservation. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: GEOI 2313.

GEOI 3514 Structural Geology (Fa) Field study of structural features and their relation to the earth's crust. Lecture 3 hours per week. Corequisite: Lab component. Prerequisite: GEOI 1004 or GEOI 1113 or GEOI 3002.

GEOI 3602 Undergraduate Special Problems (Sp, Su, Fa) (1-6) Library, laboratory, or field research in different phases of geology. May be repeated for up to 6 hours of degree credit.
Course Descriptions

GEOL3901 Junior Honors Course (Sp, Su, Fa) Special honors research in geology. One hour credit each semester. Prerequisite: Junior standing.

GEOL3911 Junior Honors Course (Sp, Su, Fa) Special honors research in geology. One hour credit each semester. Prerequisite: Junior standing.

GEOL4203 Introduction to Geochemistry (Irregular) Covers a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in geology).

GEOL4053 Hydrogeology (Sp) Occurrence, movement, and interaction of water with geologic and cultural features. Lecture 3 hours per week. Corequisite: Lab component. Prerequisite: MATH 2564 and GEOL 3513 and GEOL 4013.

GEOL4043 Water Resource Issues (Fa) Human impact on the quantity and quality of water resources including impact of agriculture, industrial, and municipal uses, and a comparative policies and water resource development, past and present.

GEOL4053 Geomorphology (Sp) Mechanics of landform development. Lecture 2 hours, laboratory 3 hours per week. Several local field trips are required during the semester. Corequisite: Lab component. Prerequisite: GEOL 1113 or GEOL 3002.

GEOL4063 Principles of Geochemistry (Fa) Introduction to fundamental principles of geochemistry from historic development to modern concepts. Corequisite: Lab component. Prerequisite: CHEM 1121 and CHEM 1123.

GEOL4153 Karst Hydrogeology (Irregular) Assessment of karst aquifers in carbonate rocks with a focus on the relation of ground water and surface water hydrology to karst; quantification of extreme variability in karst environments; data collection rationale. Field trips required. Prerequisite: GEOL 3513 and GEOL 4013.

GEOL4223 Stratigraphy and Sedimentation (Sp) Introductory investigation of stratigraphic and sedimentologic factors important to the study of sedimentary rocks. Lecture 2 hours, laboratory 3 hours per week. A required weekend, two-day field trip will be conducted during the semester. Corequisite: Lab component. Prerequisite: GEOL 3413.

GEOL4253 Petroleum Geology (Fa) Distribution and origin of hydrocarbons in sedimentary rocks. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: Geology major and senior standing. May be repeated for up to 3 hours of degree credit.

GEOL436V Geology Field Trip (Sp) (1-2) Camping field trip to areas of geologic interest, usually conducted during Spring Break. Prerequisite: GEOL 3313. May be repeated for up to 4 hours of degree credit.

GEOL4553 Volcanology (Irregular) Derivation from physical principles, of the geophysical methods for mapping the Earth. Computational methods of converting gravity, magnetic, radiometric, electrical, and seismic data into geological information. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: MATH 2564 and PHYS 2033 and PHYS 2031L, and GEOL 3513 and GEOL 3511L.

GEOL4558 The Solid Earth: Structure, Composition and Evolution (Irregular) Modern views for the origin of the solid Earth and its structure, composition, and evolution through geologic time. Topics will include examination of relevant geophysical and geochemical constraints used to develop global models for the Earth. Prerequisites: CHEM 1123, GEOL 3313, MATH 2564, PHYS 2074 or permission of the instructor.

GEOL4559 Volcanology (Irregular) A broad introduction to volcanic processes and their associated hazards. Emphasis will be placed on applying basic physical and chemical principles to understanding volcanic systems. Prerequisite: GEOL 2013.

GEOL4666 Geology Field Camp (Su) A professional course taught on campus emphasizing occurrence, description, mapping, and interpretation of major rock types. Prerequisites: GEOL 3413 and GEOL 3514. (may not be taken for graduate credit.)

GEOL481V Cooperative Education Program (Sp, Su, Fa) (1-8) Credit for off-campus, compensated work experience related to geology arranged through the Cooperative Education Office and Department of Geology.

GEOL4863 Geological Data Analysis (Sp) Quantitative methods and techniques for analysis and interpretation of geologic data. Students are introduced to geologic computer software to build a map portfolio. Field trips may be required. Prerequisite: GEOL 3023.

GEOL4922 Senior Honors Course (Sp, Su, Fa) Special honors research in geology. Two hours of credit each semester. Prerequisite: Junior honors.

GEOL4924 Earth System History (Sp) Physical and biological events that form the history of the earth from its formation to the late Quaternary. Graduate enrollment only with departmental permission. Prerequisite: GEOL 3514.

GEOL4932 Senior Honors Course (Sp, Su, Fa) Special honors research in geology. Two hours of credit each semester. Prerequisite: Junior honors.

GEOL5001 Graduate Seminar (Irregular) Informal discussions of research as reported in geological literature. All graduate students are expected to attend. GEOS5001H Honors Colloquium (Irregular) Covers a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in geology). GEOL5013 Stratigraphic Principles and Practice (Irregular) Physical and biological characteristics of sedimentary environments and their correlation in time with emphasis on the geologic local section. Corequisite: Lab component. Prerequisite: GEOL 4223.

GEOL5153 Environmental Site Assessment (Irregular) Methods related to conducting an environmental site assessment. An applied course covering field site assessment, regulatory documentation, and report preparation. Prerequisite: GEOL 4033.

GEOL5153 Marine Geology (Fa) Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: GEOL 3513 and GEOL 4013.

GEOL5263 Hydrochemical Methods (Even years, Sp) (2-3) Solvent extraction, aqueous chemistry, and gas chromatography methods for water, including quality control and quality assurance. Prerequisite: CHEM 1123 and CHEM 1121L.

GEOL5413 Planetary Geology (Irregular) Exploration of the solar system, geology and stratigraphy, meteorite impacts, planetary surfaces, planetary crusts, basaltic volcanism, planetary interiors, chemical composition of the planets, origin and evolution of the Moon and planets. Prerequisite: GEOL 3413 or ANTH 3413 or ANTH 3553.

GEOS3023 Introduction to Cartography (Fa) (1-2) Introduction to geographic information systems (GIS) applications in marketing, transportation, real estate, demonography and urban and regional planning, and related areas. Lectures focus on development of principles, parallelized by workstation-based laboratory exercises using mainstream GIS software and relational data bases. Prerequisites: GEOL 3023 or GEOL 3543. (Same as ANTH 4553)

GEOS4543 Geophysical Methods (Irregular) This course examines the underlying geophysical responsible for selected parks, and explores the interplay of geology, biology, climate, topography, and humans to evaluate the value of the parks, and to anticipate the problems they will face in the near and long-term. Prerequisite: GEOL 1113.

GEOS4583 Vector GIS (Sp) Introduction to geographic information systems (GIS) applications in marketing, transportation, real estate, deomonography and urban and regional planning, and related areas. Lectures focus on development of principles, parallelized by workstation-based laboratory exercises using mainstream GIS software and relational data bases. Prerequisites: GEOL 3023 or GEOL 3543. (Same as ANTH 4553)

GEOS5493 Introduction to Global Positioning Systems (Fa) Fundamentals of navigation, mapping, and high-precision positioning using the Navstar Global Positioning System. Topics include datum definition and transformation, map projections, autonomous and differential positioning using both code and carrier processing, and analysis of errors. Prerequisite: GEOL 3543. (same as ANTH 4593)

GEOS4653 Advanced Raster GIS (Odd years, Sp) Advanced raster topics are examined beginning with a theoretical and methodological review of Tomlin's cartographic modeling principles. Topics vary include the use of raster data, image processing, kriging, spatial statistics, principal components, fuzzy and regression modeling, and multi-criteria decision models. Several raster GIS programs are examined with links to statistical analysis software. Prerequisite: GEOL 4553 or ANTH 4553.

GEOS4693 Environmental Justice (Sp) This course deals with the ethical, environmental, legal, economic, and social implications of spatial planning by weighing the interests of the disenfranchised, and minorities who live in the less desirable, deteriorating neighborhoods, communities, and niches of our country. The class integrates science with philosophy, politics, economics, policy, and law, drawing on award-winning films, current news, and case studies.

GEOS4733 GPS Geodesy in Geoscience (Even years, Sp) Applications of GPS geodesy in geosciences and environmental sciences. An introduction to GPS using research projects such as seismic and volcanic hazard. Statistical procedures and factors affecting data quality will be discussed. Analysis will focus on archived data, on-line data

Geosciences (GEOS)
from GPS research networks, and data collected by students. Lecture 2 hours, laboratory 2 hours per week. Prerequisite: GEOE 1113.

GEOS4836 Quantitative Techniques in Geosciences (Sp) An introduction to the application of standard quantitative and spatial statistical techniques to geoscientific analysis, and the use of both micro and large scale computers in the course. Prerequisite: (STAT 4003 and STAT 4001L) or equivalent. (Same as ANTH 4863).

GEOS5023 Technical and Proposal Writing for the Geosciences (Sp) Preparation of technical reports, research proposals, and manuscripts for publication in the area of geosciences.

GEOS5053 Quaternary Environments (Fa) An interdisciplinary study of the Quaternary Period, including dating methods, deposits, soils, climates, tectonics, and human adaptation. Lecture 2 hours, laboratory 2 hours per week. Prerequisite: Graduate standing. (Same as ANTH 5053, ENDE 5053).

GEOS5423 Remote Sensing of Natural Resources (Even years, Sp) Introductory digital image processing of remotely sensed data. Topics include data collection, laboratory design, scientific visualization, radiometric and geometric correction, enhancement, pattern recognition, artificial intelligence, and accuracy assessment in natural resource remote sensing. Advanced geomatics software exercises are also provided. Prerequisite: GEOS 4413 and proficiency in a programming language.

GEOS5585 Environmental Isotope Geochemistry (Sp) Introduction to principles of isotope fractionation and distribution of isotopes in environmental systems, isotopic analytical methods, and extraction of isotopic samples; application of isotopes in characterization of geologic processes and interaction with hydrologic, surficial, and biologic attenuation, paleo-climate, soil, and biogeochemical processes. Prerequisite: GEOL 5063 or GEOL 5263. (Same as ENDS 5585) May be repeated for up to 3 hours of degree credit.

German (GERM)

GERM1003 Elementary German I (Sp, Su, Fa) Elementary courses stress correct pronunciation, aural comprehension, and simple speaking ability, and lead to mastery of basic grammar and limited reading ability. Prerequisite: GERM 1003 or equivalent.

GERM2003 Intermediate German I (Sp, Su, Fa) Intermediate courses lead to greater facility in spoken language and to more advanced reading skills. Prerequisite: GERM 1003 or equivalent.

GERM2013 Intermediate German II (Sp, Su, Fa) Continued development of basic speaking comprehension and writing skills and intensive development of reading skills. Prerequisite: GERM 2003 or equivalent.

GERM3003 Advanced German I (Fa) Development of reading, writing, listening, and speaking skills. Some grammar review and translation exercises. Emphasis on vocabulary acquisition and the correct use of idiomatic expressions. Prerequisite: GERM 2013.

GERM3013 Introduction to Literature (Fa) Development of reading skills and introduction to literary analysis. Prerequisite: GERM 2013 or equivalent.

GERM3033 Conversation (Sp) Three hours per week of guided conversation practice for the post-intermediate student. Prerequisite: GERM 2013.

GERM3063 Ph.D. Reading Requirement (Su) (Same as GERM 4003)

GERM399VH Honors German Course (Sp, Fa) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

GERM4003 Advanced German II (Sp) Further development of reading, writing, listening, and speaking skills. Some grammar review and translation exercises. Emphasis on vocabulary acquisition and the correct use of idiomatic expressions. Prerequisite: GERM 3013. (Same as GERM 3063)

GERM4033 Conversation (Sp) Three hours per week of conversation practice for the advanced undergraduate. Prerequisite: GERM 3013.

GERM4123 The German Novelle (Irregular) An intensive study of the novelle as a genre from its origin to the present. Prerequisite: GERM 3013.

GERM4133 The German Drama (Irregular) A study of the development of the forms and themes of the German drama from the middle ages to the present. Prerequisite: GERM 3013.

GERM4143 German Lyric Poetry (Irregular) A study of the forms and themes of German lyric poetry from the middle ages to the present. Prerequisite: GERM 3013.

GERM4213 German Civilization (Irregular) Prerequisite: GERM 2013 or equivalent.

GERM4223 German-Speaking Countries in the 20th Century (Sp) Introduction to German culture and civilization begun with GERM 4213 with emphasis on the emergence in the 20th century contemporary Austria, Switzerland, and a unified Germany. Prerequisite: GERM 3013. May be repeated for up to 6 hours of degree credit.

GERM4343 Business German II (Sp) Introduces students to the language of business German and provides insights into business practices in the German-speaking countries. Covers aspects of business geography, the European Union, transportation/shipping, business correspondence, resume writing and job application. Open to all majors; no business prerequisites. Prerequisite: GERM 2013. May be repeated for up to 6 hours of degree credit.

GERM470V Special Topics (Irregular) (1-3) May be offered in a topic not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

GERM475V Special Investigations (Sp, Fa) (1-6) GERM5223 Early German Literature: Middle Ages to the Enlightenment (Sp, Su, Fa) GERM5275 Literature: Enlightenment, Storm and Stress, and Classicism (Sp, Su, Fa) GERM5343 Early Modern German Literature: Late 19th and Early 20th Century (Sp, Su, Fa) GERM5363 German Literature after 1945 (Sp, Su, Fa) GERM5703 Special Topics (Sp, Su, Fa) May be offered in a subject not specifically covered by the courses otherwise listed. May be repeated for up to 6 hours of degree credit.

GERM575V Special Investigations (Sp, Fa) (1-6)

Gerontology (GERO)

GERO4443 Gerontology (Sp) Physiological and psychological aging of the adult and elderly individual, family relations, service networks for the elderly, and retire- ment activities. Some attention to health care and needs of persons in the community. Course focus on the elderly. May be repeated for up to 6 hours of credit. Prerequisite: GERO 4023 or equivalent.

GERO5013 Field Experience in Gerontology (Irregular) Supervised research/practicum experience in field setting. May be repeated for up to 6 hours. Prerequisite: Grade of C or better. May be repeated for up to 6 hours of degree credit.

GERO5023 Critical Issues in Aging (Irregular) Consideration of current issues of aging not covered in depth in other courses. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

General Engineering (GNEG)

GNEG1103 Introduction to Engineering (Fa) This introductory course for undergraduate freshmen students introduces them to the field of engineering and many of the modeling and problem solving techniques used by engineers. It also introduces the students to the engineering profession and some of the computer tools necessary for pursuing a degree in engineering.

GNEG1111 Introduction to Engineering I (Sp, Fa) Fundamentals of engineering problem-solving including skills from mathematics, science, and computing. Introduction to the engineering design process through team-based activities. Study of the contemporary engineering profession and the disciplines within the College of Engineering. Prerequisite: General Engineering majors only.

GNEG1122 Introduction to Engineering II (Sp, Fa) Further study of engineering problem-solving including skills from mathematics, science, and computing. Experience with the engineering design process through a major, team-based project. Selecting a major within the College of Engineering. Discussion of academic and professional opportunities for engineering students. Prerequisite: General Engineering students only. Prerequisite or Corequisite: MATH 2554.

GNEG1122 Introduction to Engineering (Sp, Fa) General course in the use of engineering drawings for communication. Theory and design. Proper use of computer-aided drafting and design; 2-dimensional; 3-dimensional; and solid modeling; use of manual drafting equipment; geometrical exercises; orthogonal projections; auxiliary view; sketching; dimensioning. Pre- or Corequisite: MATH 1213 or higher. Corequisite: Lab component.

GNEG1301H Honors Colloquium (Irregular) (1-2) Covers a set of special topics or issues relevant to Freshman Engineering Students. Offered as part of the honors program. Prerequisite: Honors College students only. Approval required. May be repeated for up to 2 hours of degree credit.

GNEG2801 Cooperative Education I (Sp, Su, Fa) A student in the work period of the Cooperative Education program must register for a Cooperative Education course. A written report is required. Department heads determine the level of the course of which a student registers.

GNEG3801 Cooperative Education II (Sp, Su, Fa) GNEG3811 Cooperative Education IV (Sp, Su, Fa) GNEG4801 Cooperative Education V (Sp, Su, Fa) GNEG4811 Cooperative Education VI (Sp, Su, Fa) GNEG5801 Cooperative Education (Sp, Su, Fa) Supervision and experience in applying classroom skills to problems in the real-world environment. May be repeated for up to 3 hours of degree credit.

Greek (GERK)

GERK1003 Elementary Ancient Greek I (Fa) The rudiments of classical Greek, with concentration on grammar, vocabulary, and syntax. Short selections from ancient authors lead to basic reading ability.

GERK1013 Elementary Ancient Greek II (Sp) A continuation of the rudiments of classical Greek, with concentration on grammar, vocabulary, and syntax. Short selection from ancient authors lead to basic reading ability. Prerequisite: GERK 1003 or equivalent.

GERK1203 Beginning Modern Greek I (Fa) Conversational language of Greece today. Stress on correct pronunciation, aural comprehension, and simple speaking ability. Leads to active mastery of basic grammar and limited reading ability.

GERK1213 Beginning Modern Greek II (Sp) A continuation of the rudiments of modern Greek, with concentration on grammar, vocabulary, and syntax. Short selection from ancient authors lead to basic reading ability. Prerequisite: GERK 1003 or equivalent.

GERK2003 Plato’s Apology of Socrates or Greek New Testament or Both (Fa) GERK2013 Homer (Sp) Selections from the Iliad or the Odyssey: a survey of Greek epic poetry. Prerequisite: GERK 2003 or equivalent.

GERK2203 Intermediate Modern Greek I (Fa) Continuation of Beginning Modern Greek. Prerequisite: GERK 1203 and GERK 1213, or equivalent.

GERK2213 Intermediate Modern Greek II (Sp) Continuation of Intermediate Modern Greek I. Prerequisite: GERK 2003 or equivalent.

GERK4023 Greek Poetry or Plato (Irregular) Selections from the Eleigias, iambic, and Lyric poets. Plato’s Apology and Crito. Prerequisite: GERK 2003 or equivalent.

GERK4033 Herodotus or Thucydides (Irregular) Readings of Herodotus, Book VII, and Thucydides, Book VI; collateral readings on the Persian and Peloponnesian Wars. Prerequisite: GERK 2003 or equivalent.

GERK4043 Greek Drama (Irregular) Readings of 2 tragedies and one comedy; a study of the Greek theatre. Prerequisite: GERK 2003 or equivalent.

GERK475V Special Investigations (Sp, Su, Fa) (1-6)

GERK575V Special Investigations (Irregular) (1-6) May be repeated for up to 12 hours of degree credit.

Graduate Education Courses (GRSD)

GRSD400V Research Experience Undergraduate Internship (Su) (1-6) Internship for students participating
in an undergraduate research experience. May be repeated for up to 12 hours of degree credit.

GRSD 5000 Preparatory to Preparing Future Faculty (Irregular) Introductory seminars to the Preparing Future Faculty program. May be repeated for up to 1 hours of degree credit.

GRSD 5001 The Professor’s Role in Higher Education (Irregular) Designed to introduce the future academic professional to the expectations of a faculty role in higher education.

GRSD 5024 Practicum for Future Faculty (Irregular) This course is designed to follow GRSD 5003 and to give participants opportunities to apply theories and methods learned in that course. To accomplish these goals, the course instructor helps the participant arrange a mentoring opportunity as part of this course. Prerequisite: GRSD 5003. May be repeated for up to 6 hours of degree credit.

GRSD502V Special Topics in Preparing Future Faculty (Irregular) (1-3) Seminar on selected topics for those anticipating a career teaching in higher education. May be repeated for up to 6 hours of degree credit.

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**Human Environmental Sciences (HESC)**

HESC1013 Introduction to Clothing Concepts (Sp) (Principles of clothing, evolution of clothing, an economic power, the sociological and psychological aspects of clothing in various cultures, aesthetics of dress, selection and consumption of clothing. Lecture 3 hours per week. Pre- or corequisite: HESC majors only)

HESC1023 Introduction to Apparel Production (Sp, Fa) Course focuses on basic principles of apparel production and analysis of garment components of mass production apparel. Students will utilize computer-generated designs in the production process. Laboratory 6 hours per week. Prerequisite: HESC students only or consent.

HESC1031 About the Profession (Fa) Exploration of the field of interior design. Guest speakers and field trips Corequisites: HESC 1501 (HESC MAJORS ONLY), HESC 1034.

HESC1034 Studio 1 Design Exploration 1 (Fa) Introductions to design and design projects. Corequisites: HESC 1501 (HESC MAJORS ONLY), and HESC 1031.

HESC1044 Studio II: Design Exploration II (Sp) Corequisites: HESC 1031 and HESC 1034.

HESC1053 Computer Based Methods for Apparel (Sp, Fa) This course is designed to give students basic experience with computer-aided design software in interior design. Laboratory 6 hours per week. Prerequisite: APST majors only.

HESC1201 Introduction to Dietetics and Nutrition (Fa) (Principles of dietetics and nutrition including history, scope and future of professionals with assignments.) Lecture 3 hours per week. Pre- or corequisite: HESC 1044 and HESC 2853.

HESC2003 Visual Merchandising and Fashion Promotion (Sp, Fa) Fashion components, terminology and design features as applied to apparel. Prerequisites: HESC 1023, HESC 2053.

HESC2025 Introduction to Textile Science (Sp, Fa) Textile fibers and fabrics, their structure, properties, manufacture, wearing qualities and methods of laundering, finishing, and applications of fibers and construction of materials for clothing and household furnishings. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component required for Apparel Studies majors only.

HESC2111L Foods I Laboratory (Sp, Fa) Laboratory exercises and practice applicable of Foods I. Lab 3 hours. Corequisite: HESC 2122. Prerequisite: CHEM 1074 and CHEM 1074L (or CHEM 1103).

HESC2112 Foods I (Sp, Fa) Physical and chemical characteristics of foods and factors that affect these characteristics during storage and preparation. Lecture 2 hours. Pre- or corequisite: HESC 1501 (applies to HESC majors only). Corequisite: Lab component required for HESC 1501. Prerequisites: CHEM 1074 and CHEM 1074L (or CHEM 1103).

HESC2123 Catering Management (Sp) Course focuses on catering in food service operations and management, including on-premise, off-premise, with a contract management operation and theme catering. Emphasis is concentrated on the functions of catering to include planning, operations, organizing the event, equipment, implementing, controlling, supervision and job performance evaluation. Lecture 2 hours, Corequisite: Lab component. Prerequisite: HESC 1603.

HESC2203 Nutrition for Exercise and Sport (Sp) The integration of concepts from nutrition and exercise physiology into a comprehensive understanding of how food, beverages and dietary supplements influence physical performance. Prerequisite: HESC 1213.

HESC2401L Infant and Toddler Development Laboratory (Sp, Fa) Exploration of activities as they relate to the development and the related vocabulary necessary to communicate professionally within the industry. Lecture 3 hours per week. Prerequisite: HESC 1023 and HESC 1003.

HESC2402 Infant and Toddler Development (Sp, Fa) Human development from conception through toddlerhood. Physical, emotional, social, and cognitive development is covered. Lecture 2 hours per week. Corequisite: HESC 2401L.

HESC2413 Family Relations (Sp, Fa) Courtship, marriage, and parenthood in the United States, with attention to cultural and psychological factors which affect relationships among family members. Lecture 3 hours per week. Pre- or corequisite: HESC 1501 (applies to HESC majors only).

HESC2433 Child Development (Sp, Fa) Theory, research, and application in cognitive, social, physical, and linguistic development of the child aged three to adolescence. Lecture 3 hours per week; time arranged for directed observation. Prerequisite: HESC 1403 or PSYC 2003.

HESC2443 The Hospitalized Child Life Programming (Irregular) Introduces child life program- ming in health care settings. Topics include: roles and expectations of a Child Life Specialist, importance of play, coping techniques, family advocacy, administration and professionalism. Lecture 3 hours per week.

HESC255V Special Topics (Irregular) (1-6) Topics not covered in other courses or a more intensive study of specific topics in the specializations of human environmental sciences.

HESC2603 Food Service Purchasing (Fa) Food purchasing with emphasis on specifications. Relationship of food purchasing to available equipment. Receiving, storage, distribution, and inventory control. Meal quality control and costs. Lecture 3 hours per week. Prerequisite: HESC 1603 or HESC 1201.

HESC2633 Hotel Operations Management (Fa) Detailed study of different departments within hotel properties. Emphasis on front office, food and beverage, housekeeping, engineering, security, sales and night audit reporting. Prerequisite: HESC 1603.

HESC2843 Principles of Tourism (Sp) Application of economic and regional development concepts and theories to destination product and development. Provides students with a thorough overview of tourism planning at the local, regional and national level while providing a variety of practical planning, procedures and tourism guidelines to meet the diverse needs of travelers, destination communities, and hospitality organizations, public, non-governmental organizations, and the private sector. Prerequisite: HESC 1603.

HESC2865 Studio 3: Design; Planning and Communication (Fa) An introduction to interior space articulation and the creation of small scale spaces. Components of various presentation methods and formats. Overnight travel required. Prerequisites: HESC 1044 and HESC 2853.

Corequisite: HESC 2823.

HESC2815 Studio 4: Design Programming (Sp) Studio activities with emphasis on conceptualization, design development and presentation, ideation, rendering, and computer application. Prerequisite: HESC 2805.

HESC2823 Interior Design Materials and Resources (Fa) A study of materials and resources used in the residential and commercial environments. Prerequisite: HESC 1044 and HESC 2853.

HESC2833 Introduction to Textiles for Interior Design (Irregular) Focus on interior design as it applies to interior applications, emphasis on interior service-ability and codes.

HESC2883 History of Interiors (Fa) Study of historic interiors and furniture from antiquity through the present day. Identification of interior styles and furniture of these eras is emphasized.

HESC3003 Apparel Production (Sp, Fa) A study of development and production and the related vocabulary necessary to communicate professionally within the industry. Lecture 6 hours per week. Prerequisite: HESC 1023 and HESC 1003.

HESC3013 Introduction to Fashion Merchandising (Sp, Fa) A study of the retailing of fashion. Included are market structures, store philosophies, job descriptions, responsibilities at the management level, structural operations, organization of stores, job performance evaluation, the resume, the interdependencies of the retail store with other segments of the fashion industry. Recommended for students seeking a career in business organizations which produce and sell fashion items. Lecture 3 hours per week. Prerequisite: HESC 1013 and (AGEC 1103 or ECON 2143).

HESC3033 Fashion Merchandising Methods (Sp, Fa) Incorporation of activities and skills required for the management of fashion apparel. A fashion analysis is directed toward apparel demands and the creation of a fashion statement by the use of specific quantitative skills. Course follows fashion item from the designer to the store. Lecture 3 hours per week. Prerequisite: HESC 1013 and Math 1203.

HESC3203 Nutrition for Health Professionals and Educators (Sp) Fundamental human nutrition; nutritive value of foods and general functions of nutrients based on concepts derived from inorganic and organic chemistry. Examples relating nutrition to disease used as illustrations to deepen understanding of normal nutrition. Lecture 4 hours per week. Prerequisite: HESC 1213.

HESC3213 Dietetic and Nutrition Practice: Tools and Applications (Fa) Standards of practice, ethics, application of interviewing and counseling techniques, medical terminology, documentation in medical records, reimbursement and marketing in the fields of dietetics and nutrition.

Prerequisite: HESC 1213. Pre- or corequisite: HESC 2112 and HESC 2111L.

HESC3401L Child Guidance Laboratory (Sp, Fa) Corequisite: HESC 3402.

HESC3402 Child Guidance (Sp, Fa) Introduction to the guidance system. Focus on discipline techniques that are currently being used in the school and age-appropriate theories and activities. Lecture 2 hours/week plus 1 hour demonstration. Corequisite: HESC 3401L. Prerequisite: HESC 2433.

HESC3423 Adolescent Development (Sp) Physi-
academic, and economic factors affecting clothing and custom associated with dress will be stressed. Lecture three hours per week. Prerequisite: ANTH 1025 or equivalent.

HESC4053 Contemporary Apparel (Sp) Fashion as a social force, the origin, scope, theory, and history of the fashion business, the materials of fashion, the fashion production process, and current trends. Lecture 3 hours per week. Prerequisite: HESC 4043 or consent.

HESC4063 Advanced Apparel Production (Sp, Fa) An advanced study of product development incorporating an understanding of the clothing production process and the industry standards and trends. Lecture 3 hours per week. Prerequisite: Junior standing or consent of instructor.

HESC4062 Apparel Studies Internship (Sp, Fa) A practical experience in a retail store or in a working situation related to the apparel industry to gain insight into the field of apparel merchandising and operations. Prerequisites: Junior standing and HESC 2112, HESC 3013 and HESC 3033 and HESC 4071 and consent of instructor.

HESC4103 Experimental Foods (Sp) Application of experimental methods for investigations in cookery. Group and individual projects, individualized instruction. Four hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: HESC 2112 and HESC 2111L and CHEM 1123 and CHEM 3121L (or HESC 2112 and HESC 2111L and CHEM 1074 and CHEM 117U).

HESC4213 Advanced Nutrition (Fa) Normal nutrition with emphasis on utilization of nutrients. Lecture and reports on current literature 3 hours per week. Prerequisite: CHEM 3183 and HESC 3003.

HESC4223 Nutrition During the Life Cycle (Fa) Study of nutrition emphasizing the quantitative needs for nutrients as functions of biological processes that occur during the various stages of human development. Prerequisites: HESC 1603 and HESC 3003.

HESC4232 Community Nutrition (Sp) Identifying, assessing, and developing solutions for nutritional problems encountered with the local, state, federal, and international levels. Level of instruction varies. Lecture 3 hours per week. Prerequisite: HESC 1213. HESC 2111L and CHEM 1123 and CHEM 3121L and BIOL 1543 and BIOL 1541L.

HESC4243 Gerontology (Sp) A study of the physiological and psychological development of the aging individual, extended family relationships, service networks for the elderly, and retirement activities. Some attention to housing and care needs of persons in advanced years. Lecture 3 hours per week. Seminar. Prerequisite: HESC 1403 or (HESC 2413 or PSYC 2003 or SCWK 2313) and junior standing.

HESC4246 Medical Nutrition Therapy I (Pr) Principles of nutritive care with emphasis on pathophysiology, assessment, and treatment of chronic illnesses. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Pre- or corequisite: HESC 4213 and HESC 3213. Prerequisites: BIOL 2123 and BIOL 2211L (or ANSC 3032) and CHEM 3183.

HESC4273 Medical Nutrition Therapy II (Pr) Principles of nutritional care with emphasis on pathophysiology, assessment, and treatment in critical illness. Lecture 3 hours per week. Prerequisite: HESC 4264.

HESC4300 Professional Development in Human Environmental Sciences (Sp) Enhancement of the professional and personal development of students by fostering an understanding of the historical and philosophical basis of Human Environmental Sciences, with an emphasis on the interrelationships and integration of the component specialties. Clarification of career goals and development of professional plans.

HESC4313 Building Family and Community Relationships (Sp) This course will help students interested in early childhood to value the role parents play in schools and the role role of children in the public schools. Considerations of models of parent involvement will be explored. Students will plan a school-community collaborative project which values diverse cultures.

HESC4322 Curriculum and Assessment: Birth to Three Years (Sp) The course will introduce students to curriculum and planning and assessment in programs serving children from birth to three years of age. Emphasis will be on responsive relationships and curriculum focused on development and routines. Prerequisites: HESC 1411L, HESC 2420/2430L. Corequisites: HESC 4320L.

HESC4323 Curriculum and Assessment: Birth to Three Years Laboratory (Sp) Laboratory. Corequisites: HESC 4320L.

HESC4342 Adult Development (Fa) Examine individual development beginning with the transition adulthood through middle age; approximate ages range 18-60 years. Emphasis will be on focusing on physical, psychological, and social changes that occur throughout this period of the life span. The impact of love, work, and family on men's and women's movement through the transitions that comprise adulthood are emphasized.

Prerequisite: HESC 1403 or PSYC 2003 and junior standing.

HESC4343 Dynamic Family Interaction (Sp) Examination of family interaction across the lifespan. Methods for enhancing marriage and family interactions will be examined. Sources of marital conflict, intergenerational support and conflicts will be analyzed. Lecture three hours per week. Prerequisite: HESC 2413 and junior standing.

HESC4343 Gerontology (Sp) A study of the physiological and psychological development of the aging individual, extended family relationships, service networks for the elderly, and retirement activities. Some attention to housing and care needs of persons in advanced years. Lecture 3 hours per week. Seminar. Prerequisite: HESC 1403 or (HESC 2413 or PSYC 2003 or SCWK 2313) and junior standing.

HESC4345 Parenting and Family Dynamics (Sp, Fa) Focus is on influences of family dynamics on individual development, especially factors in family life which contribute to normal psychological development. Topics include family values, the psychology of sex and pregnancy, the transition to parenthood, childhood, family influences on cognitive and social development, and changes in family relationships during the life cycle. Prerequisites: HESC 1403 or PSYC 2003.

HESC4346 Administration and Evaluation of Child Development (Fa) Programs Information on planning, developing, operating, and evaluating child development programs. Topics include physical facilities, staff, curriculum, budgets, parent involvement, and evaluation. Lecture and discussion 3 hours per week. Prerequisite: HESC 3402 and HESC 3401L and junior standing.

HESC4472 Child Development Practicum (Sp) Interaction with parents and planning, implementing, and evaluating directed experiences with children ages 3-5 in an NAECY accredited laboratory setting -- U. of A. Nursery School. 2 hours lecture per week. Corequisite: HESC 4472L.

HESC4472L Child Development Practicum Laboratory (Sp) Actual experience facilitating children's learning with classroom activities. Participation in planning, implementing, and evaluating individual and family child and program. 6 hours laboratory per week. Corequisite: HESC 4472L. Prerequisites: HESC 3402 and HESC 3401L.
HESC3653 Advanced Hotel Operations (Sp) In-depth comprehension, strategic planning and analysis of the manager’s role in successful hotel operations including application of specialized computer software and human resource management skills. Lecture 2 hours per week. Prerequisite: HESC 3635.

HESC4643 Meetings, Events and Convention Management (Fa) Focuses on the planning and management of meetings and conventions in the hospitality industry. Prerequisite: HESC 3604 and HESC 3643.

HESC4663 Issues & Trends in Hospitality & Tourism (Sp) A study of world trends, issues, and the current state of the industry, as well as predictions for the future of lodging, cruise, restaurant, technology, travel and tourism industries with applications to forecasting change in the hospitality and tourism industries. Prerequisite: HESC 1603.

HESC4753 Family Financial Management (Sp) A basic course in the study of higher education open setting. Prerequisite: GPA Greater or Equal to 2.75. May be repeated for up to 3 hours of degree credit.

HESC4823 Professional Practice for Interior Design (Sp) An examination of the vital issues and trends affecting college faculty personnel with emphasis upon institutional practices and policies. Prerequisite: Doctoral students in Higher Education or permission of the instructor.

HESC5033 Principles of Textile Testing (Sp) Study of textile testing machines and methods utilized to determine construction and performance characteristics of woven and knit fabrics. Lecture 1 hour. Laboratory 1 hour per week. Prerequisite: HESC 3003.

HESC502V Special Problems Research (Sp, Su, Fa) (1-6) Topics not covered in other courses, a focused study of specific topics in the students’ areas of concentration. May be repeated for up to 6 hours of degree credit. Prerequisite: HESC 3003.

HESC5003 Advanced Apparel Design Studies in the Global Economy (Fa) Advanced analysis of economic, social, and political aspects of the domestic and international textile and apparel industries. Lecture 1 hour per week. Prerequisite: HESC 3653.

HESC522V Readings in Nutrition (Sp) (1-6) Seminar and individual study. Prerequisite: HESC 4213 or HESC 4223 or ANSC 3143.

HESC5252 Medical Nutrition Therapy I (Sp) Principles of nutritional care with an emphasis on pathophysiology, assessment and treatment in chronic illnesses. Lecture 3 hours, laboratory 3 hours per week. Prerequisite: Graduate standing and consent of instructor.

HESC5253 Medical Nutrition Therapy II (Sp) Principles of nutritional care with an emphasis on pathophysiology, assessment and treatment in chronic illness. Lecture 3 hours per week. Prerequisite: HESC 5252.

HESC5254 Advanced Medical Nutrition Therapy (Sp) Subtle elements in marriage, parent-child, and other relations among family members and between the family and the larger community. Prerequisite: HESC 5253.

HESC540V Special Topics (Irregular) (1-6) An examination of the history and development of higher education including the study of the philosophy, objectives, and functions of various types of higher education institutions. Prerequisite: HESC 540V.

HIED5173 Individual and Group Management Skills (Even years, Sp) Development of knowledge, skill, and confidence in personal management, interpersonal and group facilitation skills. Prerequisite: HESC 5123.

HIED5003 History and Theory of Higher Education (Sp) An examination of the history and development of higher education including the study of the philosophy, objectives, and functions of various types of higher education institutions. Prerequisite: HESC 540V.

HIED6013 The Professoriate: Problems and Issues (Sp) An examination of the vital issues and trends affecting college faculty personnel with emphasis upon institutional practices and policies.

HIED6023 Introduction to the Study of Higher Education (Sp, Fa) A requirement for all new doctoral and specialist students. Familiarization with writing requirements, library research procedures, library resources, and program requirements. Prerequisite: Admission to Higher Education program (Ed.S. & Ed.D.)

HIED605V Independent Study (Sp, Su, Fa) (1-6) Students with an opportunity to pursue special study in higher education.

HIED6083 Management Skills for Effective Leadership (Irregular) Development of management skills to enhance leadership including reading, self-awareness, managing yourself, team building, personnel selection, group and individual decision-making, problem solving, managing conflict, developing valid performance appraisal systems, conducting performance appraisal interviews, and other topics of current interest. Prerequisite: Doctoral students in Higher Education or permission of the instructor.

HIED6093 Leading Change (Irregular) An in-depth examination of leadership, change, and culture in postsecondary education.

HIED6183 Organization Development and Change in Higher Education (Irregular) An examination of the theory and practice of organization development as it relates to planned change in colleges and universities.

HIED6323 Design and Evaluation of College Teaching (Irregular) Theory and practice of effective college teaching. Emphasis is placed on preparation and evaluation of instruction.

HIED6343 Strategies for Effective College Teaching (Even years, Sp) An examination of traditional and non-traditional instructional strategies, course development, facility management and the use of instructional technologies.

HIED6423 Trends, Issues and Problems in Higher Education (Odd years, Fa) A study of the current problems and trends related to the field of higher education.

HIED655V Legal Aspects of Higher Education (Sp) An examination of the legal status of higher education in the United States; the rights and responsibilities of educators and students including fair employment; due process;
HIST3973H Honors Methods (Sp) A practical introduction to historical research and writing. Examines research methods and current theories of writing. Meets the past. Prepares students for honors thesis development and writing. Required for and restricted to history honors students. Prerequisite: Junior standing as history honors major. History (Sp, Su, Sa) (1-3) Special topi  
HIST4003 Greece and the Ancient Near East (Irregular) An introduction to the origins of civilization in the ancient Near East and Greece. Emphasis is paid to the development of agriculture and cities; Hebrew religious ethics, and Greek culture, political institutions, and thought.
HIST4013 Alexander the Great and the Hellenistic World (Even years, Sp) A survey of the achievements of Alexander and the culture of the new world he created. 
HIST4023 The Roman Republic and Empire (Even years, Fa) An introduction to Rome's cultural development from its origins as a small city state in the 8th century B.C. to its rule over a vast empire extending from Scotland to Iraq. Emphasis is placed upon the causes of Roman expansion during the republic, the urbanization and Romanization of Western Europe, and the development and generation of Latin. Special attention is given to the formation of the Celtic and Germanic Kingdoms in the West.
HIST4033 Late Middle Ages (Odd years, Sp) This course examines the political, social-economic, intellectual, and spiritual developments of European history, c. 1000-1400 CE. Special topics include monasticism, sacrificial kingship, the crusades, and the medieval university.
HIST4073 Renaissance and Reformation, 1300-1600 (Even years, Fa) Examines the history of Europe from the Middle Ages through the Renaissance to the Reformation and Counter-Reformation. Special attention is paid to changes in popular piety, political thought, religious representation, and the discovery of the New World. 
HIST4083 Early Modern Europe, 1600-1800 (Odd years, Sp) Begins with the upheaval of the Reformation, the Enlightenment (Even years, Sp) The course examines the political, social-economic, intellectual, and spiritual developments of European history, c. 1000-1400 CE. Special topics include the Christianization of the late Roman Empire and Byzantium, as well as the formation of the Italian and Germanic Kingdoms in the West. 
HIST4093 Late Middle Ages (Odd years, Sp) This course examines the political, social-economic, intellectual, and spiritual developments of European history, c. 1000-1400 CE. Special topics include monasticism, sacrificial kingship, the crusades, and the medieval university.
HIST4073 Renaissance and Reformation, 1300-1600 (Even years, Fa) Examines the history of Europe from the Middle Ages through the Renaissance to the Reformation and Counter-Reformation. Special attention is paid to changes in popular piety, political thought, religious representation, and the discovery of the New World. 
HIST4083 Early Modern Europe, 1600-1800 (Odd years, Sp) Begins with the upheaval of the Reformation, the Enlightenment (Even years, Sp) The course examines the political, social-economic, intellectual, and spiritual developments of European history, c. 1000-1400 CE. Special topics include the Christianization of the late Roman Empire and Byzantium, as well as the formation of the Italian and Germanic Kingdoms in the West. 
HIST4093 Late Middle Ages (Odd years, Sp) This course examines the political, social-economic, intellectual, and spiritual developments of European history, c. 1000-1400 CE. Special topics include the Christianization of the late Roman Empire and Byzantium, as well as the formation of the Italian and Germanic Kingdoms in the West. 

HIST3904 History of the Middle East from the Islamic conquest to the beginning of the modern period (CE 650-1600). 
HIST3903 History of Islam in North Africa and Spain from the Islamic conquest to the beginning of the modern period (CE 650-1600). 
HIST3903 History of Islam in North Africa and Spain from the Islamic conquest to the beginning of the modern period (CE 650-1600).
HIST4183 Great Britain, 1707-1901 (Even years, Fa) Examines the history of the British Isles from the 1707 Act of Union between Britain and Ireland until the death of Queen Victoria in 1901. Special attention is given to the spread of Empire, industrialization, and the political, social, and cultural aspects of the Georgian and Victorian Eras.

HIST4203 Germany, 1901-2001 (Odd years, Sp) Examines the history of the British Isles from the death of Queen Victoria in 1901 to the reelection of Prime Minister Tony Blair in 2001. Special attention is given to the collapse of the British Empire, the birth of the welfare state, and the challenges inherent in the decline of British world power.

HIST4213 The Era of the French Revolution (Odd years, Fa) France from the salons of the Enlightenment to the Napoleonic Wars. This Revolution will be explored in terms of politics and personalities, ideas and symbols, class and gender relations, and violence and terror.

HIST4223 France Since 1815 (Even years, Sp) Survey of French history from the overthrow of Napoleon to the 5th Republic, with emphasis on French politics, society, and culture.

HIST4243 Germany, 1789-1918 (Even years, Fa) Survey of Germany from Age of Absolutism to collapse of the Hohenzollern monarchy with emphasis upon political, social, and economic developments.

HIST4253 History of Germany, 1918-1949 (Fa) Survey of the history of Germany from the end of World War 1 through the 30s with emphasis upon political, social, and cultural development of Germany through the Nazi era.

HIST4283 Russia to 1861 (Irregular) Civil War is included. Emphasis is placed on the causes of the Civil War and the implications for American life and institutions.

HIST4353 Middle East, 1300-1722 (Odd years, Sp) Survey of political, social, and cultural aspects of the Georgian and Victorian Eras.

HIST4373 Mongol & Mamluk Middle East 1250-1520 (Even years, Sp) An examination of the Mongol Empire and its successor states upon the Mongol conquests in the Balkans and Arab world.

HIST4413 New Women in the Middle East (Irregular) The rise of women as a social and cultural force in the Middle Eastern societies, focusing on their roles in the Middle Eastern societies.

HIST4433 Social and Cultural History of the Modern Middle East (Irregular) Exploration of the social and cultural aspects of the Modern Middle East.

HIST4473 Diplomatic History of the United States, 1776-1900 (Even years, Fa) Survey of American foreign relations from the American Revolution through the Spanish-American War. Principal topics include isolationism, freedom of the seas, manifest destiny and continental expansion, two world wars and the Treaty of Paris, the Diplomacy of War and peace. Emphasis on the relationship between domestic politics and foreign affairs. Prerequisite: HIST 2003.

HIST4473 Diplomatic History of the United States, 1876-1917 (Odd years, Fa) A survey of the impact of the Industrial Revolution, Imperialism, and modernism upon American life and institutions.

HIST4493 Religion in America to 1860 (Irregular) History of religion in America, primarily from a social and cultural perspective, but also includes regional, social class, growth of institutions, slavery, print culture, and social reform in traditions including Protestantism, West African religion, Catholicism, Native American religion, and Judaism.

HIST4503 History of Political Parties in the United States, 1789-1896 (Even years, Fa) Origin and development of the major political parties, with an emphasis on the implementation of the constitution to the election of McKinley.

HIST4513 History of Political Parties in the United States Since 1896 (Odd years, Sp) Response of the party system to the Industrial nation and world power from the election of 1896 to present. (Same as PLSC 4313)

HIST4533 American Social and Intellectual History to 1865 (Even years, Fa) Survey of significant ideas and institutions from Colonial times through the Civil War with emphasis upon religious, educational, literary, and scientific developments.

HIST4543 American Social and Intellectual History Since 1865 (Odd years, Sp) Survey of thought and society since the Civil War.

HIST4583 Arkansas in the Nation (Sp) Designed to provide advanced undergraduate and graduate students with a comprehensive understanding of the full sweep of Arkansas history. The focus is on politics, economic, and political history, and historiography.

HIST4613 Colonial America to 1763 (Irregular) Political, economic, and social history of colonial development from the time of the first settlement with primary, but not exclusive, emphasis upon Anglo-America.

HIST4623 Revolutionary America, 1763 to 1801 (Irregular) Political, economic, and social history of Revolutionary War and its cultural and political implications.

HIST4643 Early American Republic, 1801-1828 (Irregular) The Early Republican Era emphasizing social and political perspectives. Topics will address issues ranging from westward expansion, slavery, religion, and economic change.

HIST4653 Antebellum America, 1828-1850 (Irregular) Emphasis on political, economic, and social developments in the mid-nineteenth century America and the evolution of the new nation, with a particular emphasis upon the emergence on constitutional traditions.

HIST4663 Rebellion to Reconstruction, 1850-1877 (Irregular) A survey of political, social, and economic issues from the late antebellum period through Reconstruction. Emphasis is placed on the causes of the Civil War and the problems of postwar America. A brief examination of the Civil War is included.

HIST4673 The American Civil War (Fa) An intensive study of the political, social, military, and economic aspects of the American Civil War.

HIST4683 The Business Corporation in American History (Irregular) Historical and cultural perspectives of business in America and the economic development of the American party system from the implementation of the 15th Amendment to the present day.

HIST4733 America Between the Wars, 1917-1941 (Irregular) The impact of World War I, the 1920s, and the Great Depression upon American society and culture.

HIST4733 Recent America, 1941 to the Present (Irregular) A general survey of American history since World War II with emphasis upon the presidency, foreign relations, and economic developments. Prerequisite: HIST 2003.


HIST4763 Diplomatic History of the United States, 1876-1900 (Even years, Fa) Survey of American foreign relations from the American Revolution through the Spanish-American War. Principal topics include isolationism, freedom of the seas, manifest destiny and continental expansion, two world wars and the Treaty of Paris, the Diplomacy of War and peace. Emphasis on the relationship between domestic politics and foreign affairs. Prerequisite: HIST 2003.

HIST4783 History of Modern Mexico (Odd years, Sp) This course examines the history of Mexico from the era of independence to the present. Emphasis will be placed on the turbulent nineteenth century and the Mexican Revolution. Themes covered include colonial legacies, national identities, popular culture, emigration, and relations with the United States.

HIST4813 History of China to 1644 (Even years, Fa) A history of pre-modern China, including the study of Confucianism, Taoism and Buddhism.

HIST4823 Modern China (Odd years, Sp) Formerly HIST 4323) Survey of Chinese culture, society, government and diplomacy between 1844 and 1912.

HIST4843 Modern Japan (Irregular) Formerly HIST 4843) Survey of Japanese history since 1859 to the downfall of Tokugawa shogunate through the two world wars to the rise of an economic superpower. Emphasis is placed upon economic, social, and political questions, including their successes and costs.

HIST4893 Senior Capstone Seminar (Fa) Required for all history majors. Examines research methods and current theories of interpreting and evaluating the past. Emphasizes skills of analysis, synthesis, and integration. Students produce a primary source-based research paper. A grade of a B or better will satisfy the Fulbright senior writing requirement.

HIST498V Senior Thesis (Sp, Su, Fa) (1-6)

HIST5023 Historical Methods (Fa) Practical introduction to historical research and writing. Consists of lecture, library reading, and class criticism of research papers. Prerequisite: Graduate standing.

HIST5043 Historiography (Irregular) Survey of the history of historical writing and a study of the important theory and historical interpretation. Prerequisite: Graduate standing.

HIST5053 Reading Seminar in Asian History (Irregular) Concentrated reading in selected specialized areas of Asian History. Prerequisite: Advanced graduate standing.

HIST506V Readings in European History (Irregular) Required for all history majors. Examines research methods and current theories of interpreting and evaluating the past. Prerequisite: Graduate standing.

HIST507V Readings in American History (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST508V Research Problems in European History (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

HIST509V Research Problems in American History (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST5103 Reading Seminar in American History (Irregular) Concentrated reading in selected specialized areas of American History. Prerequisite: Graduate standing.

HIST5113 Reading Seminar in European History (Irregular) Concentrated reading in selected specialized areas of European History. Prerequisite: Graduate standing.

HIST5123 Research Seminar in American History (Irregular) Research projects in selected fields of American history, such as the Civil War, the Age of Jackson, etc. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

HIST5133 Reading Seminar in European History (Irregular) Historiographical and bibliographical study of special periods in European history, such as the Roman Empire, the late Middle Ages, the French Revolution, etc. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

HIST5143 Research Seminar in European History (Sp, Su, Fa) Research projects in selected fields of European history, such as the French Revolution, humanism, etc. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

HIST5153 Reading Seminar in British History (Irregular) Historiographical and bibliographical study of selected periods of British history.

HIST5163 Research Seminar in British History (Irregular) Research projects in selected fields of British history.

HIST517V Readings in Asian History (Irregular) (1-6) Prerequisite: Graduate standing.
HIST519V Readings in Near Eastern History (Irregular) (1-6) Prerequisite: Graduate standing.
HIST5213 Reading Seminar in Middle Eastern History (Irregular) Research projects in selected fields of Middle Eastern history. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.
HIST5253 Research Seminar in Latin American History (Irregular) Historiographical and bibliographical study of special areas in Latin American history. Prerequisite: Graduate standing.
HIST5323 Research Seminar in Latin American History (Irregular) A research seminar for the production of a major research project in Latin American history. Prerequisite: Graduate standing.
HIST6003 Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.
HIST600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.
HIST7090 Authority: Probationary (Sp, Su) (1-18) Prerequisite: Candidacy. May be repeated for up to 18 hours of degree credit.

Health Sci, Kins, Recr (HKRD)

HKRD480V Workshop (Irregular) (1-18) May be repeated for up to 18 hours of degree credit.
HKRD5333 Research in Health Science, Kinesiology, Recreation and Dance (Sp, Su, Fa) Methods and techniques of research in health education, physical education and recreation including an analysis of examples of their use and practice in their application to problems of interest to the student.
HKRD5873 Leadership in HKRD Services (Su) Consideration of the practical applications of leadership principles utilized in the provision of HKRD services. Focus is on motivation, attitude, communication, group dynamics, and problem solving.
HKRD5893 St Facilities Management (Sp) Considers basic elements and procedures in the planning, design, construction, operation, and maintenance of sport facilities; management considerations in conducting various types of events.
HKRD5893 Public and Private Finance in HKRD (Fa) Develops an understanding of both public and private financial management for students in public and private management positions. Provides an understanding of the budgeting processes and techniques used in obtaining and controlling funds, including private sector finance problems in areas of credit, pricing, indexing, and debt management.
HKRD6133 Readings in HKRD (Irregular) A review of the significant social, demographic, behavioral, developmental, and technological issues that influence health, kinesiology, and recreation programs. Pre- or Corequisite: for doctoral level students only.
HKRD6233 Management in HKRD (Irregular) Deals with principles, procedures, relationships, problems, and current practices in the supervision of health education and kinesiology. Includes management of facilities, programs, personnel, and processes.
HKRD689V Directed Research (Sp, Su, Fa) (1-6) Laboratory investigations, in basic and applied research.
HKRD689V Seminar (Sp, Su, Fa) (1-3) May be repeated for up to 3 hours of degree credit.
HKRD700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Health Sciences (HLSC)

HLSC102 Wellness Concepts (Sp, Fa) Interrelationship of mental, emotional, physical, social, and spiritual aspects of functioning to optimal health and wellness; implications for education about wellness in the schools and for adult living and aging.
HLSC1103 Personal Health and Safety (Sp, Fa) Health and safety problems with emphasis on the promotion of individual health and safety.

HLSC1203 Prevention of Drug Abuse (Fa) Provides an overview of drugs of use and abuse in society. Also assists in establishing early prevention, screening, and intervention approaches for public, private, or community settings.
HLSC1303 Introduction to Human Sexuality (Sp) An examination of human sexuality with a critical analysis of male and female sexual as well as social and cultural values affecting self-understanding and gender identity.
HLSC2010 Special Topics (Sp, Fa) Examination and application of health promotion concepts based on individualized health hazard assessment. (Not to replace content courses leading to teacher certification in health education). May be repeated for up to 5 hours of degree credit.
HLSC2613 Foundations of Community Health (Sp) (Formerly HLSC 261) A history of the development of organizations and administration of health education programs; curriculum development and evaluation of educational efforts; and student observation in school and non-school settings. HLSC2652 Terminology of the Health Professions (Sp, Fa) Emphasis is on word roots and combined forms of words describing various facets of health and disease. Descriptive definitions with application of practical significance included for the health professional.
HLSC310V Readings in Health Science (Irregular) (1-3) Synthesis and critical analysis of current literature in the health sciences. May be repeated for up to 12 hours of degree credit.
HLSC3613 Methods and Materials in Health Education and Safety (Irregular) Methods and materials; planning and organizing instruction; preparation of teaching units. Prerequisite: HLSC5333.
HLSC3633 First Responder-First Aid (Sp, Su, Fa) Prepares persons to administer cardiopulmonary resuscitation and emergency aid to victims of serious bleeding, poisoning, shock, fracture, and emergency medical services personnel arrive at the scene.
HLSC3643 Community Health Planning and Promotion (Even years, Fa) Emphasis on community analysis; defining and verifying community health problems; establishing program goals; defining and assessing health behaviors; formulating educational goals, objectives, methods, and activities; promoting programs; and designing program evaluation.
HLSC3663 Principles and Practice of Mental Health Promotion (Odd years, Fa) Understanding and practicing the principles of sound mental health are key elements in achieving high level wellness. This course encourages students’ exploration of the mental dimensions of holistic health and presents strategies to achieve a more healthful balance in life.
HLSC3673 Teacher Drug Education (Fa) Specifically for educators; provides an overview of drugs of use, misuse, and abuse in society, and assists the educator in developing a sequential drug education program in public, private, or community settings.
HLSC3683 Health Care Consumerism (Even years, Sp) Study of products and services provided by the health care delivery system; an analysis of those components lacking scientific credibility, yet promoted for the maintenance or restoration of health status.
HLSC404V Community Health Preceptorship (Sp, Su, Fa) (6-12) Designed to provide the student with an extended work experience in a selected community health program. The student works under college supervision with a professional in the health care delivery field. Prerequisite: Senior standing.
HLSC4603 Application of Health Behavior Theories in Health Education (Odd years, Sp) Understanding the reasons for health behavior is vital for the health education professional. It is necessary to assist in the development of services and programs that are likely to move an individual from an unhealthy behavior to one that is more appropriate for a healthy lifestyle. This course surveys the major health behavior theories used in health education and applications of the theories will be utilized in the class.
HLSC4613 Principles of Epidemiology (Fa) Distribution and patterns of disease or physiological conditions within populations; an examination of the nature of epidemiological research. Prerequisite: Senior standing and BIOL 2013 and BIOL 2011L. May be repeated for up to 6 hours of degree credit.
HLSC4623 Human Diseases (Fa) (Formerly HLSC 3623) An examination of the epidemiology, etiology, distribution, and management of both infectious and noninfectious diseases in human populations. Prerequisite: BIOL 1603 or BIOL 1543 and BIOL 1541L.
HLSC5353 Health Counseling (Fa) A review of the role and function of the health counselor including a focus on problem solving approaches for coping with daily problems of living, decision making, and life style planning.
HLSC5543 Contemporary Issues in Human Sexuality (Irregular) Indepth analysis of the social, biological, and psychological factors associated with the development of one’s sexuality.
HLSC5563 Public Health (Odd years, Sp) acquaints the student with the structure, functions, and major problems in public health and with the role of education in public health.
HLSC5573 Principles of Health Education (Fa) Current trends, basic issues, controversial issues, and fundamentals of health education.
HLSC5589 Independent Study (Sp, Su, Fa) (1-6) Prerequisite: Independent Study. Provides students with an opportunity to pursue special study of education programs. May be repeated for up to 6 hours of degree credit.
HLSC5623 Health Planning (Even years, Sp) Emphasis on examination of health planning processes, principles, and concepts. Methods for health planning agencies, issues in comprehensive health planning, and analysis of decision making steps for program implementation will be addressed.
HLSC5633 Health Services Administration (Irregular) Emphasis on an examination of administrative factors related to health services. Administrative and professional authority, boards, consumerism, state, federal, and role, and cost containment will also be addressed.
HLSC574V Internship (Irregular) (1-6) May be repeated for up to 6 hours of degree credit.
HLSC589V Independent Study (Sp, Su, Fa) (1-6) Prerequisite: Independent Study. Development, implementation, and completion of graduate research project. Prerequisite: M.S. degree in Health Science and HPER 5583 and EDFF 5583.
HLSC589V Independent Research (Sp, Fa) (1-6) Provides students with an opportunity to pursue special study of education programs. May be repeated for up to 6 hours of degree credit.
HLSC6333 Health Behavior Research (Even years, Fa) A review of human behavior and its relationship to health and well being. Focuses on contemporary health behavior research and instrumentation.
HLSC6383 Environmental Health Behavior (Odd years, Fa) An analysis and evaluation of the various environmental factors that influence our health. Causes of problem factors are identified and solutions proposed for improving environmental conditions.
HLSC6733 Health and the Aging Process (Odd Years, Sp) An overview of the health-related issues facing elderly populations with indepth study of the biological and behavioral changes associated with aging.
HLSC674V Internship (Sp, Su, Fa) (1-3) Provide Ph.D. students with an individualized college teaching experience in collaboration with a faculty mentor. Enrollment contingent with residency. Prerequisite: Junior standing and admission to the Ph.D. in Health Science degree program. May be repeated for up to 2 hours of degree credit.
HLSC6803 Health Communication Theory, Research and Practice (Odd years, Fa) This course is designed to acquaint you with the role of communication in health education and with basic principles and practices in interpersonal, group, and mass communication. Health communication theory will be discussed in the first part of the semester, followed by important research in the area of health communication, and finally putting to practice the material will be the terminal experience for the course.
HLSC6833 Principles of Epidemiology II (Even years, Sp) Provides students with knowledge and skills necessary to design, conduct, and interpret observational epidemiological concepts, sources of data, prospective cohort studies, retrospective cohort studies, case-control studies, cross-sectional studies, methods of sampling, estimating sample size, questionnaire design, and effects of measurement error. Prerequisite: EDFF 5393 or EDFF 6403.
HLSC6851 Research Design and Independent Research (1-3) Discussion of selected topics and review of current literature in the health sciences. Prerequisite: Advanced graduate standing. May be repeated for up to 3 hours of degree credit.

Honors Education (HNED)

HNED3001H Honors Education Thesis Tutorial (Sp, Su, Fa) Designed to provide the foundation for the Honors Thesis. Students and faculty tutors work “one-on-one” exploring a specific topic which has been agreed upon by the
HORT1103 Plants in the Home Environment (Sp, Fa) A course describing the aesthetic, nutritional and health value, and other importance of plants to humans. The course will highlight the use and importance of plants and gardening through the ages, study significant gardens to humankind, and introduce students to using plants to their benefit. The use of color, texture, aroma and flavor in the home and landscape will be presented. Basic home gardening, plant care and use will be discussed and practiced.

HORT1203 Introduction to Plant Sciences (Sp, Fa) An introduction to basic aspects of agricultural crop plant structure, growth, and production. (Same as CSES 1203)

HORT2003 Principles of Horticulture (Sp, Fa) A course introducing students to the biological and technologies underlying the production, handling and care of horticultural crops, turf and landscape plants. Students will be introduced to the various disciplines and commodities of horticulture. The use of plants for the benefit of humankind because of their health, nutritional and aesthetic values will be explored. Previous instruction in Plant Science, Plant Biology, or general Botany is strongly encouraged. Lecture 2 hours, laboratory 2 hours, drill 1 hour per week. Corequisite: Lab component.

HORT2303 Introduction to Turfgrass Management (Fa) An introductory course in turfgrass management emphasizing turfgrass growth, adaptation, and management. Methods for establishment, fertilization, mowing, cultivation, irrigation, and pest management are presented, and their impact on quality of lawns, golf courses, athletic fields, and other managed turf areas discussed.

HORT3303 Vegetable Crops (Even years, Sp) Cultural and management practices of commercial and residential lawns. Principles and practices of mowing, fertilizing, irrigating, and control of weed, disease, and insects. Identification of turfgrass species. Corequisite: Lab component. Prerequisites: BIOL 1613 and BIOL 1611L (or HORT 1203 or CSES 1203).

HORT3901 Horticultural Career Development (Sp) A course which presents concepts necessary for developing a career and becoming a professional in horticulture industries or businesses. Concepts of goal setting, effective communication and interpersonal skills, behaviors and performance, portfolio and resume, development and job hunting skills will be presented.

HORT400V Special Problems (Sp, Su, Fa) (1-6) Original investigations on assigned problems in horticulture. Prerequisite: Junior standing.

HORT401V Special Topics in Horticulture, Turf or Landscape (Irregular) (1-6) Topics related to horticulture, turfgrass or landscape science or management not covered in other courses or a more intensive study of a specific topic.

HORT420V Horticulture Judging and Competition Activity (Irregular) (1-6) Training for and participation on horticulture, turfgrass, or landscape judging and competitive teams. Repeatable for up to 4 credits. Prerequisite: HORT 2003. May be repeated for up to 4 hours of degree credit.

HORT4303 Professional Landscape Installation and Construction (Even years, Fa) Principles and practices involved in landscape installation and construction. Topics covered include: protecting existing trees, landscape soils, selecting plants, planting and transplanting plant materials, wood construction, cement and masonry construction, and low-voltage lighting. Lecture 2 hours, practice 7 hours. Prerequisite: Familiarity in aptitude or business is suggested. Prerequisite: HORT 2003 and HORT 3103.

HORT4403 Professional Landscape Management (Odd years, Fa) Principles and practices of landscape management and maintenance. Topics include low maintenance and seasonal color design, pruning and hazard tree management, water and fertilizer management, pesticide use, disease/pest management, and operational aspects. A maximum of 6 hours credit is permitted for degree credit. Prerequisite: HORT 2003 and HORT 3103.

HORT4403 Fruit Production Science and Technology (Odd years, Sp) The management technologies and cultural practices of fruit crops including (but not limited to) blueberries, blackberries, raspberries, strawberries, grapes, peaches, and apples will be presented. The underlying scientific principles of crop genetics, nutrition, and physiology will be discussed and crop management decisions in fruit crop productions. Corequisites: Lab component. Prerequisites: HORT 2003.

HORT4403 Plant Propagation (Even years, Sp) Principles of propagation, cutting, grafting, budding, layering, and tissue culture. The physiological basis of propagation is described. Knowledge of plant growth and physiology is needed. Lecture 2 hours, laboratory 2 hours per week. Corequisites: HORT 4003.

HORT4603 Practical Landscape Planning (Even years, Sp) Ornamental planting design and landscape planning concepts. Preparing planting plans, materials sheets, and cost estimates for residential properties. Prerequisite: HORT 3103.

HORT464V Horticulture, Landscape, Turf Science Internship (Sp, Su, Fa) (1-6) A supervised practical work experience in a horticultural business or research program to gain professional experience and into employment opportunities. May be repeated for up to 6 hours of degree credit.

HORT463V Horticulture Internship (Sp, Su, Fa) (1-6) Practical work and study experience in a horticultural business. May be repeated for up to 6 hours of degree credit.

HORT464V Horticulture Management Internship (Sp, Su, Fa) (1-6) Practical work and study experience in companies in horticultural business management. Prerequisite: (60 hours completed or junior standing) or HORT 3901. May be repeated for up to 8 hours of degree credit.

HORT4701L Greenhouse Management and Controlled Environment Horticulture Laboratory (Odd years, Fa) Laboratory involving hands-on experiments designed to demonstrate principles discussed in the lecture section. Includes field trips. Corequisite: HORT 4703.

HORT4703 Greenhouse Management and Controlled Environment Horticulture (Odd years, Fa) Operation and management of greenhouses and other controlled environments used in horticultural production. Emphasis on system design and construction, control of light intensity and photoperiod, heating and cooling systems, substrates, mineral nutrition, pest management, and disease control systems. Prerequisite: HORT 2003 and CHEM 1074.

HORT4801L Crop Protection (Even years, Sp) A supervised practical work experience in a crop protection program to gain professional experience and into employment opportunities. May be repeated for up to 6 hours of degree credit.

HORT4803 Greenhouse Crops Production (Even years, Sp) Principles and practices of production and marketing of crops commonly grown in controlled environments including flowering containerized herbaceous species, geophytes, annual and perennial bedding plants, hydroponic vegetables and herbs. Prerequisite: HORT 4703.

HORT4903 Golf and Sports Turf Management (Odd years, Fa) Turf management techniques for golf courses, and athletic fields including species selection, root-zone construction and modification, fertilization, mowing, irrigation and pest control. Corequisite: Lab component. Prerequisites: CSES 2203 and CSES 2201L and (HORT 2303 or HORT 3403).

HORT4913 Rootzone Management for Golf and Sports Turf (Odd years, Sp) An overview of the development of the principles of the production and chemical properties of rootzones as related to construction and turfgrass management. Prerequisite: HORT 2303.

HORT4921 Golf Course Operations (Even years, Fa) This course is designed to cover all aspects of golf course operations that would not be included in traditional turfgrass management courses. Topics will include budgeting, personnel management, tournament setup and operation, dealing with golf club committees, communication, and other relevant topics related to managing a golf course maintenance operation. Prerequisites: HORT 4903.

HORT5001 Seminar (Sp, Su) Review of scientific papers, reports on current research in horticulture. May be repeated for up to 4 hours of degree credit.

HORT503V Special Problems Research (Sp, Su, Fa) (1-8) Original investigations on assigned problems in horticulture. Prerequisite: Graduate standing.

HORT5043 Advanced Plant Breeding (Odd years, Sp) Application of genetic principles to the improvement of crop plants. Presentation of conventional plant breeding methods and special techniques including haploid androgenesis, protoplast hybridization and induced mutation. Lecture 3 hours per week. Prerequisite: BIOI 2323 and BIOI 2321L (or ANSC 3123 and CSES 4103).

HORT600V Master's Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

HORT602V Special Topics in Horticulture (Irregular) (1-3) Discussion and advanced studies on selected horticultural, plant breeding and genetics, plant production and chemical properties of horticultural crops. Prerequisite: Graduate standing.

HORT6033 Genetic Techniques in Plant Breeding (Even years, Fa) Indepth study of genetic improvement and techniques. Covers both current and classical literature. Topics to be discussed: haploidy, genetic control of pairing, somatic instability, tissue culture and protoplast fusion, and male sterility. Lecture discussion 3 hours per week. Prerequisites: BIOI 2323 and BIOI 2321L (or ANSC 3123 and CSES 4103 or equivalent).

Human Resources Development (HRDV)

HRDV200V Work Experience I (Sp, Su, Fa) (1-30) Credit by advanced standing examination for job knowledge and/or skill. Prerequisite: Program in the Human Resource Competency Testing Institute (NCTI) assessments may be repeated for a maximum of 30 hours. May be repeated for up to 30 hours of degree credit.

HRDV3113 Skills/Strategies in Human Resource Development (Sp, Su) Addresses the acquisition of professional skills and strategies associated with creating and maintaining adult learning environments. Involves a regular class workshop situation where skills are practiced and encouraged and a work-based situation where skills are tried and implemented as well as assessed. Prerequisites: HRDV 3213 and HRDV 4113.

HRDV3123 Theory and Principles of Needs Assessment and Evaluation in Human Resource Development (Sp, Fa) Addresses the acquisition of and application of knowledge associated with needs assessment and evaluation of human resources with emphasis on workplace situations. Prerequisites: HRDV 3213 and HRDV 4113.

HRDV3133 Communication in Human Resource Development (Sp, Fa) This course introduces communication principles and practices in HRD. Coursework emphasizes identifying and developing communication skills that apply to roles, responsibilities, and strategies while exploring how individuals communicate in organizational systems. Both theoretical and practical applications will be included. Prerequisites: HRDV 3213 and HRDV 4113.

HRDV3213 Introduction to Human Resource Development (Fa) Presents the theory and processes...
associated with human resource development (HRD) used to design and measure interventions in the areas of organization development and development, and career development. Students will analyze organizations and study global implications of HRD. Also surveys topics in human resource management (HRM) that distinguish HRM from HRD. Prerequisite: Departmental approval.

HRDV4303 Employment Law in Human Resource Development (Sp, Su, Fa) This course covers the major employment law facts and concepts used in human resource development. Applications of the key concepts and facts are emphasized in the class. Knowledge of the employment law facts and concepts and their applications at the workplace is vital for the human resource development professional. Prerequisite: Departmental approval.

HRDV3503 Workforce Behavior (Su) The prerequisite for HRDV 450V Experiential Learning, this content examines the psychological impact of work on the individual through a study of organizational culture, job satisfaction, motivation, communication, behavioral styles, and career development. In addition, students will assess individual personality traits, learning styles, work skills, and develop both professional and personal life goals. Prerequisite: Departmental approval.

HRDV4113 Theory and Principles of Adult Education (Fa) Focus of study on the concept of individual differences and how they affect the learning and teaching of adults. Prerequisite: Departmental approval.

HRDV4133 Theory/Principles of Group Dynamics (Sp, Fa) This course uncovers various theories and practical applications of group behaviors and processes underlying facilitation of group adult learning in the workplace. It is designed to equip learners with knowledge and skills applicable to developing team performance for a competitive organization. Pre- or corequisites: HRDV 3213 and HRDV 4113.

HRDV4213 Strategies in Professional Development (Sp, Fa) Students are encouraged to examine their own learning processes and professional development in terms of the theories and principles of how adults learn. Methods and strategies for self-development and change are discussed. Self-directed lifelong learning strategies that ensure the professional advancement of professional adult educators/human resource development practitioners will be discussed. Prerequisites: HRDV 3213 and HRDV 4113.

HRDV4233 Leadership in Human Resource Development (Sp, Fa) This course provides an introduction to leadership principles and practices in the HRD area, and is intended as a foundation course for students practicing, or who plan to pursue a career in HRD. The emphasis is on identifying HRD leadership skills and exploring various functions/attributes of leadership and their impact on HRD. Both theoretical and practical applications will be included. Prerequisites: HRDV 3213 and HRDV 4113 HRDV4213 Strategies in Professional Development as well as the completion of a personal, behavioral assessment, develop an individualized professional development plan, and reflect on the role of ethics in their profession. Prerequisite: HRDV 4213.

HRDV4293 Introduction To HRD I (Sp, Fa) This course is designed to introduce students to the field of human resource development (HRD). Thus, students will apply the theories and best practices presented and examined in HRDV 3213 Introduction to HRD I to identify needs in students’ own organizations. Prerequisite: HRDV 3213. Pre- or Corequisite: HRDV 4213.

HRDV4693 HRD Practicum: Strategies (Sp, Su) In an actual business/industrial setting, the student will study, observe, participate and apply skills and strategies of “good training” such as needs assessment, program design, synthesis of planning and conducting training in the workplace. Prerequisite: HRDV 3113.

HRDV4693 HRD Practicum: Strategies (Sp, Su) In an actual business/industrial setting, the student will study, observe, participate and apply skills and strategies of “good training” such as needs assessment, program design, synthesis of planning and conducting training in the workplace. Prerequisite: HRDV 3113.

HRDV4263 HRD Practicum: Leadership (Sp, Fa) This practicum is designed to guide students through an in-depth process of understanding key learning elements related to developing, articulating, and implementing an organizational vision, mission, and strategic plan. The practicum focuses students on exploring their own organization’s and learning their role with emphasis on workplace situations. Prerequisite: HRDV 3123.

HRDV4513 HRD Practicum: Professional Development (Sp, Su) This practicum is designed to enhance the student’s ability to identify personal tendencies that affect team performance. The practicum application of adult learning principles by encouraging self-directed learning, and increase ethical awareness in the student’s profession. To this end, students will apply concepts from HRDV 4213 Strategies in Professional Development as well as the completion of a personal, behavioral assessment, develop an individualized professional development plan, and reflect on the role of ethics in their profession. Prerequisite: HRDV 4213.

HRDV450V Experiential Learning  (Sp, Su, Fa) (1-30) This course is limited to persons qualifying for experiential credit to be applied to the Human Resource Development Concentration only. Credit is awarded for documented experiences obtained in an internship or practicum (Sp, Su, Fa) based on a standard format as suggested by the Council for the Advancement of Experiential Learning (CAEL). Credit for certain occupational training or professional certifications may also be earned using the American Council on Education (ACE) guidelines. Prerequisite: HRDV 3500. May be repeated for up to 30 hours of degree credit.

HRDV4603 HRD Practicum: Introduction To HRD I (Sp, Su) In an actual business/industrial setting, students will apply the theories and best practice presented and examined in the prerequisite course to identify needs in that organization. This course is designed as a journey beginning with the discovery and identification of organization needs and ending in a thoroughly researched and documented presentation of a human resource development intervention. Students will require access to organizational leaders, stakeholders, employees, and learners to help develop activities and a final product in alignment with the organization’s strategic intent. Prerequisite: HRDV 3213.

HRDV4613 Applied Theory and Principles of Adult Education (Sp, Su) In an actual business/industrial setting, the student will observe, participate and apply skills regarding adult learning principles and theory. The focus is on identifying and evaluating leaders in the field of adult education and development to identify the role of education/teachers and evaluating current issues in the field of adult education. Prerequisite: HRDV 4113.

HRDV4623 HRD Practicum: Communication (Su, Fa) In an actual work setting, the student will apply the theories, concepts and skills studied in the prerequisite course. Prerequisite: Not applicable.

HRDV4633 HRD Practicum: Skills (Sp, Su) In an actual business or industrial setting, the student will study, observe, participate and apply skills and strategies of good training. The practicum application of learning principles, writing instructional objectives and plans, designing active training methods, using visual aids, working with groups, and evaluating training. Prerequisite: HRDV 3143.

HRDV4643 HRD Practicum: Needs Assessment and Evaluation (Sp, Su) This course addresses the acquisition and application of knowledge associated with needs assessment and program planning. Prerequisite: HRDV 3143.
Fa) Economic aspects of engineering, including current
economic problems and the treatment of estimates when
evaluating the prospects of action. Methods of selection and
replacement of equipment and break-even points of op-
eration; desirability of new projects or projects where asset
life, rate of return on investment, and first, fixed, differential,
marginal, and break-even costs are considered. Corequisite:
Drill component. Prerequisite: MATH 2554.
INEG3513 Manufacturing Design and Processes
(Fa) Fundamental concepts of manufacturing design and
process planning; the effects of manufacturing processes on product
design and cost; engineering design and CAD as well as
product inspection; and quality control. Engineering materials,
comprehensive manufacturing processes including metal
machining, casting, and forming. Laboratory required. Coreq-
usite: Lab component. Prerequisite: PHYS 2054.
INEG3523 Manufacturing Systems (Sp) Funda-
mental topics of manufacturing systems, classifications and
analysis of automated manufacturing systems. Introduction
to automation, hardware components of manufacturing systems,
industrial control systems as well as applications on NC part
programming, industrial robots, and PLC programming. Labo-
ratory required. Corequisite: Lab component. Prerequisite:
INEG 3513.
INEG3613 Introduction to Operations Research
(Sp) Simplex method of linear programming, dual problem and
sensitivity analysis and assignment problems. Linear program-
ning problems, game theory and linear programming; introduction
to dynamic programming; deterministic and probabilistic in-
ventory models; project control with PERT/CMP. Prerequisite:
INEG 3513.
INEG3713 Methods and Standards (Sp, Fa) Fun-
damental rules of motion economy; motion analysis by means
of charts; diagrams; work place design; tool and equip-
ment selection; work selection and job description and analysis.
Fundamentals of time study; observed and synthetic
methods; use of standard data and time formula; leveling; rating;
allowances; and computer program development of latest
electronic time study equipment. Laboratory required. Coreq-
usite: Lab component. Prerequisite: INEG 3313.
INEG3813H Honors Product Integrity (Irregu-
lar) This course explores the concepts of product integrity
including reliability, maintainability and warranty. Familiar
emphasis is placed on probability modeling of product
performance and statistical analysis of product reliability data.
Case studies are used to reinforce concepts in an engineer-
ning setting. Prerequisite: INEG 3313 or STAT 3031, Honors
College Students only.
INEG3833 Data Processing Systems Engineering
(Irregular) Design and analysis of database management
systems. Information systems applications development in
inventory systems, shop floor control, production scheduling,
and various corporate databases. A relational database
management system such as Oracle or Access is used.
Prerequisite: INEG 3613 and Coresite: MATH 2574.
INEG4000V Honors Thesis (Sp, Su, Fa) (1-3)
For Honors College students majoring in Industrial Engineering
only. Prerequisite: Honors college students only.
INEG4111V Individual Study in Industrial Engi-
neering (Sp, Su, Fa) (1-3) Consideration of current industrial
engineering topics not covered in other courses. Prerequisite:
Senior standing. May be repeated for up to 3 hours of degree
credit.
INEG411V Individual Study in Industrial Engi-
neering (Sp, Su, Fa) (1-3) Individual study and research
on a topic mutually agreeable to the student and a faculty
member.
INEG4223 Occupational Safety and Health
Standards (Irregular) Survey of existing and proposed
standards by examining fundamental physical, economic, and
legal bases. Performance vs. specific standards. Enforceabil-
ity and data collection. National consensus and promulga-
tion process. Includes a computer-based design project.
Prerequisite: PHYS 2054 or graduate standing. (Same as
OMGT 4020)
INEG4243 Automated Manufacturing (Irregular)
Introduction to manufacturing processes and concurrent
engineering in the electronics industry. Survey of electronics
components and the impacts and the processes of fabrication
and assembly. Principles of design, productivity, quality, and
ecomics. Emphasis on manufacturability. Prerequisite:
INEG 3513.
INEG4333 Quality Engineering and Management
(Irregular) Provides the student with complete coverage of
the functional area of “Quality Assurance” ranging from the
need for such a function, how it works, techniques utilized,
variables. Focus on fitting and checking linear and nonlinear regression models. Practical tools for engineers.

INEQS434 Global Competition (Irregular) Studies of principles and cases in engineering administration in global competition. Emphasis on high-technology manufacturing such as the electronics industry. Survey the field, multinational corporations, public policies, and customs. Discussions of ethics, professionalism, difference valuing, human relations skills, and other topics relevant to global engineering practice.

INEGS423 Cost Estimation Models (Irregular) Overview of cost estimation techniques and methodologies applied to manufacturing and service organizations. Accomplished through detailed analysis of the cost estimation development process. Cost estimation models include data collection and management, learning curves, activity based costing, detailed and parametric estimation models, and handling risk and uncertainty. Prerequisite: INEG 4353. Same as OMGT 4353.

INEGS443 Decision Models (Irregular) Focus on quantitative and qualitative decision models and techniques for technical and managerial problems. Emphasis on application and interpretation of results. Topics include decision trees, influence diagrams, weighing methods, value of information, Analytical Hierarchy Process, Bayes Theorem, Monte Carlo simulation, utility theory, risk analysis, group decision making, and expert systems. Prerequisite: INEG 5613.

INEGS523 Topics in Automated Systems (Irregular) To understand current developments in applications of flexible automation to industrial processes. Robotics, machine vision and other sensors, human machine interface, AML/2 and V programming languages.

INEGS553 Transportation Logistics (Fa) Topics in transportation logistics of interest to engineers: routing and location; network design; queuing; facility location, facility layout, and transportation. Prerequisite: INEG 5613.

INEGS543 Distribution Center & Operations (Irregular) To introduce the student to the field of facility logistics, as applied to distribution centers (DCs). The fundamental areas of facility design and operations (material handling systems, storage, etc.) are reviewed. Prerequisite: INEG 5613.

INEGS613 Optimization Theory 1 (Fa) Basic solutions and bases in linear equations, matrix version of simplex tableau, duality and primal dual relationships, complementary slackness condition, upper and lower bound criteria and improving search strategies. Prerequisite: Graduate standing.

INEGS623 Analysis of Inventory Systems (Irregular) Elements of production and inventory control, economic order size, time based ordering, logistics facilities design, applications of Geographic Information Systems (GIS) and Global Positioning System (GPS) technologies to transportation systems modeling and analysis. Prerequisite: INEG 5613.

INEGS634 Optimization Theory II (Irregular) Classical optimization theory, Lagrangian and Jacobian methods, Kuhn-Tucker theory and constraint qualification, duality in nonlinear programming, existence of optimal solutions, convex sets, and interior point algorithms. Prerequisite: INEG 613.

INEGS653 Modeling and Analysis of Semiconductor Manufacturing (Irregular) An introduction to the theory and methodology of nonlinear programming. Focus on engineering and management science applications of nonlinear optimization. Both single and multivariable problems are unconstrained and constrained problems are addressed.

INEGS713 Advanced Topics in Human Factors Engineering (Irregular) Advanced work in special research topics in human factors engineering. Prerequisite: INEG 6723.

INEGS823 Systems Simulation I (Irregular) Monte Carlo technique, construction of digital simulation models, timekeeping in simulations, design of simulation experiment, and statistical analysis of simulation results. Includes the simulation language such as ARENA. Prerequisite: CSCE 2013 and INEG 3313 (or equivalent).

INEGS843 Scheduling and Sequencing I (Irregular) An introduction to constructive algorithms and various operations research approaches for solving sequencing and scheduling problems. The NP-hardness of most scheduling problems leads to a discussion of computational complexity, the use of heuristic solution methods, and the development of worst case bounds. Prerequisite: INEG 3613 and COMP 2013. Same as OMGT 8433.

INEG600V Master’s Thesis (Sp, Su, Fa) (1-9) INEG6613 Operations Research Applications (Irregular) Investigation of literature case studies; use of mathematical models to solve practical problems; data collection and solution implementation. Students work in teams on actual problems observed in industry and government. Prerequisite: INEG 4623, INEG 5313 and INEG 5613.

INEG6823 Advanced Topics in Computer Simulation (Irregular) Advanced topics in computer simulation including experimental design, simulation optimization, variance reduction, and statistical output analysis techniques applied to discrete event simulation. Prerequisite: INEG 5613.

INEG6843 Scheduling and Sequencing II (Irregular) An investigation into constructive algorithms and various operations research approaches for solving sequencing and scheduling problems in a variety of machine environments (single-machine, parallel machines, flow shops, and job shops). Prerequisite: INEG 5843.

INEG700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Information Systems (ISYS)

ISYS2263 Introduction to Information Systems Development (Sp, Fa) This course presents the fundamental concepts used in developing information systems. It provides the foundation necessary to use throughout their software development coursework. Also includes management of information systems concepts. This course requires extensive use of computer systems. Prerequisite: WCOB 1023 and MATH 2023 each with a grade of “C” or better.

ISYS2253 Information Technology Infrastructure (Sp) This course teaches an understanding of architectural models for computer hardware and software systems, data communications, security, and Internet networking. It covers the functionality of the leading available technologies used in computing and networking environments. The student learns computer and data network analysis and design approaches from a business-oriented perspective. Prerequisite: ISYS 2263 with a grade of “C” or better.

ISYS2323 Systems Analysis and Design (Sp, Fa) Practice and application of one structured analysis methodology: use of structured documentation in implementing software requirements. Prerequisites: ISYS 2263 with a grade of “C” or better. ISYS3373 Enterprise Application Systems (Sp) An application computer systems course providing the tools necessary for manipulating, sharing, and presenting data to support business decision making. Topical coverage includes multiple applications linking, data dictionarying, and end-user systems. Prerequisite: WCOB 1023 with a grade of “C” or better.

ISYS3393 Business Application Development in the Visual Basic Environment (Sp, Fa) Principles of design and development of windows and web applications using cutting edge visual development tools included in Visual Studio. The programming language will be Visual Basic and its use in Windows applications and in conjunction with active server pages and XML for web applications. Prerequisites: ISYS 2263 or CSCE 1023 or CSCE 1123, each with a grade of “C” or better.

ISYS4003H Honors Information Systems College (Fu) Explores events, concepts and new developments in the field of Computer Information Systems and Quantitative Analysis. Prerequisite: Senior standing.

ISYS4133 E Business Development (Irregular) Explores events, concepts and new developments in the field of Computer Information Systems. This course explores various new development technologies and then utilizes the technologies for developing a relatively realistic business-to-consumer (B2C) e-business site. Students will also learn about Business to Business (B2B) strategies. Prerequisites: ISYS 3293 and XML Web services applications. Simple XML Web services will also be created. Prerequisites: ISYS 3393 or ISYS 4733 or CSCE 1123 with a grade of “C” or better.

ISYS4203 E Business Development (Sp, Fa) ERP administration and system development practices. Advanced system support issues related to Enterprise Resource Planning systems that are used in global organizations. Basic A/BAP programming. In addition, students will learn how to provide basic systems administration support of the operating system, database, and software or ERP systems. Prerequisites: WCOB 4213 and ISYS 2263 each with a grade of “C” or better.

ISYS4243 Current Topics in Computer Information Systems (Irregular) To introduce and survey some of selected developments in computer information systems hardware, software, and organization having current impact on computer information systems design and application. Offering an extension of lower-level CIS courses through individual student research and faculty team-teaching of advanced topics. Topical selection made with each course offering. Prerequisite: Junior standing. May be repeated for up to 6 hours credit.

ISYS4263 Information Technology Strategy (Irregular) This course explores the strategic management and control issues associated with IT. This course provides a framework to understand how IT strategy aligns with business strategy and how to develop an enterprise level information technology strategy. Prerequisite: WCOB 3016 with a grade of “C” or better.

ISYS4283 Centralized Data Systems (Fa) Introduces students to centralized information system design and implementation for business applications. Indepth study of logical systems modeling; physical file management; and storage requirements. Prereq: ISYS 3393. Prerequisite: ISYS 3293 with a grade of “C” or better.

ISYS4293 Business Intelligence (Sp) Business intelligence focuses on creating, developing and storing information and knowledge from internal and external sources to better support business decisions. We will consider techniques from machine learning, data mining, and information retrieval to extract useful knowledge from data, which could be used for business intelligence, performance management, or decision support. Prerequisite: ISYS 4283 with a grade of “C” or better.

ISYS4333 Object-Oriented Technologies Seminar (Irregular) Provides the student with theory and application of object-oriented and other advanced computer programming constructs. Prerequisites: ISYS 3393 and ISYS 4283.

ISYS4343 Business Application System Development (Sp) Review of fundamentals of application processing systems design and development; implementation of such a system by class. Prerequisite: ISYS 3393 and ISYS 4283, each with a grade of “C” or better.

ISYS4373 Object-Oriented Programming for Business Applications (Sp) This course covers object-oriented programming concepts and techniques through an appropriate object-oriented programming language. Students will be exposed to the design of software objects, creation of software objects, and the use of objects in constructing an information system. Prerequisite: ISYS 2263 or (CSCE 1023 and CSCE 1021L).

ISYS4453 Introduction to Enterprise Servers (Fa) The focus of this course is to expose students to working with large-scale mainframe computer systems. Mainframe computers are the heart of large company’s transaction processing systems. This course provides the opportunity for students to gain valuable insight into computing in a mainframe operating environment. Prerequisites: ISYS 2263 or CSCE 1123 with a grade of “C” or better.

ISYS4463 Enterprise Transaction Systems (Sp) Being able to accurately capture and store business transactions is an important processing function in many businesses. For many large companies with high volume processing, the tools of choice for transaction processing are CICS/COBOL/ DB2. This course provides students with the necessary understanding and skills to work in this type environment. Prerequisites: ISYS 2263 or CSCE 1123 with a grade of “C” or better.

ISYS450V Independent Study (Sp, Fa) (1-3) Permits students to take independent study or explore selected topics in data processing and/or Quantitative Analysis.

ISYS4933 Global Information Technology Management (Irregular) This course will focus on IT environments across the world, national infrastructures and regulatory regimes, global IT applications, global IS development strategies, global management support systems, and global IT management strategies. The course will culminate an understanding of management of IT resources across national borders, time zones, cultures, political philosophies, regulatory regimes, and economic infrastructures. Prerequisite: WCOB 3016 with a grade of “C” or better.

Course Descriptions
Course Descriptions
Prerequisite: ISYS 2263 or CSCE 1123 with a grade of "C".

**ISYS5133 Business Applications of Nonparametric Techniques (Sp)**

- First offered Summer 2002.
- For the evaluation and selection of tools in problem solving and decision making. Prerequisite: ISYS 3393.
- Research related to sampling and experimental design, testing of hypothesis, and using nonparametric tests. Prerequisite: ISYS 5203 or equivalent.

**ISYS5623 Statistical Analysis (Sp)**

Applications of statistical techniques and analysis of business and economic research. For students in business and economics without regard to fields of specialization. Prerequisite: ISYS 5203. Varied applications of emphasis. Prerequisite: ISYS 5203.

**ISYS5723 Computer Methods in Research (Su)**

Applications of computers to business and industrial research. Numerical problem-solving techniques, statistical computational techniques and packages, and accessing of government and private standard data bases. Prerequisite: ISYS 5623.

**ISYS5833 Data Management Systems (Sp)**

Investigation and application of database systems. Prerequisites: ISYS 5203 and ISYS 3293.

**ISYS5843 Seminar in Business Intelligence and Knowledge Management (Fa)**

Business intelligence focuses on assessing and creating information and knowledge from internal and external sources to support business decision making process. In this seminar, data mining and information retrieval techniques will be used to extract useful knowledge from data, which could be used for business intelligence, and knowledge management. Prerequisite: ISYS 5503 and ISYS 5833.

**ISYS5993 Global Information Systems Seminar (Su)**

This course is designed to provide an updated, comprehensive overview of global IT fields. It summarizes current experiences, offers managerial insights, and incorporates foundational perspectives and examines significant issues from global perspectives. Prerequisite: Graduate standing.

**ISYS5994 Management of Information Technology Seminar (Su)**

Presented in a way that allows you to play an active role in the design, use, and management of information technology. Using IT to transform organizations, as competitive strategy, and creating new relationship with other firms is included. Prerequisite: ISYS 5833.

**ISYS6333 Decision Support Systems (Fa)**

Analysis of the highest level of information support which serves the manager-user. A study of systems providing quantitative-based information derived from one or more databases within and/or external to the organization and used to aid upper-level management in the decision making process. Prerequisites: ISYS 3393 and ISYS 3293.

**ISYS6513 Business Applications of Nonparametric Techniques (Sp)**

First offered Summer 2002. Forcry evaluation and selection of tools in problem solving and decision making. Prerequisite: ISYS 3393.

**ISYS6700V Doctoral Dissertations (Sp, Su, Fa)**

May be repeated for a maximum of 6 credit hours. May be repeated for up to 6 hours of degree credit.

**ISYS700V Doctoral Dissertations (Sp, Su, Fa)**

May be repeated for up to 6 hours of degree credit.

**ITAL1003 Elementary Italian I (Fa)**

Prerequisite: ITAL 1003 or equivalent.

**ITAL1013 Elementary Italian II (Fa)**

Elementary courses stress correct pronunciation, aural comprehension, and simple speaking ability, and lead to active mastery of basic grammar and limited reading ability. Prerequisite: ITAL 1003 or equivalent.

**ITAL2003 Intermediate Italian I (Fa)**

Intermediate courses lead to greater facility in spoken language and to more advanced reading skills. Prerequisite: ITAL 1013 or equivalent.

**ITAL2013 Intermediate Italian II (Sp)**

Continued development of basic speaking comprehension, and writing skills and intensive development of reading skills. Prerequisite: Junior standing.

**ITAL3983H Honors Special Studies (Irregular)**

May be taken in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit. Prerequisite: ITAL 3983H Honors Special Studies (Irregular) or ITAL 3983H Honors Special Studies (Regular) or equivalent or permission of the instructor. Prerequisite: Junior standing.

**ITAL4003 Advanced Italian Conversation (Fa)**

Conversation practice in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

**ITAL4745V Special Investigations (Irregular) (1-6)**

May be repeated for up to 6 hours of degree credit.

**ITAL5003 Advanced Italian Conversation (Fa)**

Conversation practice in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

**ITAL5103 Intermediate Japanese I (Fa)**

Intermediate courses stress correct pronunciation, aural comprehension, and simple speaking ability, and lead to active mastery of basic grammar and limited reading ability. Prerequisite: ITAL 1003 or equivalent.

**ITAL5301 Introduction to Literature (Sp)**

Development of reading skills and introduction to literary analysis.

**ITAL6983H Honors Special Studies (Irregular)**

May be taken in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

**ITAL7003 Advanced Japanese I (Fa)**

Introduces more complex forms and structures of the language as well as more advanced reading skills. Prerequisite: ITAL 7003 or equivalent.

**ITAL7003 Intermediate Conversation I (Sp, Fa)**

Supplemental to 2003. Provides 2 hours of guided conversational per week with the objective of building the listening/ speaking skills.

**ITAL7032 Intermediate Conversation II (Sp, Fa)**

Supplemental to 2013. Provides 2 hours of guided conversational per week with the objective of building the listening/speaking skills.

**ITAL7033 Advanced Japanese Conversation (Fa)**

Conversational practice in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

**ITAL7983 Japanese Culture (Irregular)**

Insight into Japanese civilization and culture with special emphasis on the areas such as social life and environment, religion and customs, and visual and performing arts. This course also discusses western influence on Japanese society, culture and language and how traditional and modern values are manifested in Japanese society. Prerequisite: JAPN 3983. May be repeated for up to 6 hours of degree credit.

**JAPN313H Honors Language and Society of Japan (Fa)**

The primary objective of this course is to investigate the way the Japanese language reflects the beliefs and customs of the Japanese people as a social group. For comparison purposes, this course makes reference to studies of other European languages and culture. Prerequisites: This course is an alternative to JAPN 313L and JAPN 313V. Prerequisite: Junior standing. Prerequisite: JAPN 313H Honors Language and Society of Japan (Fa) or permission of the instructor.
### Course Descriptions

**Journalism (JOUR)**

**JOUR1023 Media and Society (Sp, Fa)** A survey of media communication, including its role in society and in the individual. Emphasis on mass media (newspaper, radio, TV). Prerequisite: JOUR 1003.

**JOUR1023L Broadcast News Reporting I Laboratory (Sp, Fa)** Emphasis in basic broadcast news reporting techniques. Laboratory 3 hours per week. Corequisite: JOUR 2032. Prerequisite: JOUR 1033 with a grade of C or better.

**JOUR2032 Broadcast News Reporting I (Sp, Fa)** Intensive training in the methods of gathering and writing broadcast news. Lecture 2 hours, laboratory 2 hours per week. Prerequisite: JOUR 1023 and JOUR 1033, each with a grade of C or better.

**JOUR2033L Broadcast News Reporting I Laboratory (Sp, Fa)** Emphasis in basic broadcast news reporting techniques. Laboratory 3 hours per week. Corequisite: JOUR 2032. Prerequisite: JOUR 1033 with a grade of C or better.

**JOUR2331L Photojournalism I Laboratory (Fa)** The course introduces students to the technical skills required in photojournalism. Prerequisite: JOUR 1033.

**JOUR2332L Photojournalism I (Fa)** Beginning course in the fundamentals of photography, including digital photography, composition, file transfer and management, image enhancement, and layout and design. Corequisite: JOUR 2331L.

**JOUR3031 Editing (Sp, Fa)** Theories and practices in newspaper, magazine, and other forms of mass media with emphasis on style, content, and the physical appearance for the advertisement. Includes laboratory component. Prerequisite: A grade of B or better in both JOUR 3703 and JOUR 3743.

**JOUR4453 Media Planning & Strategy (Sp, Fa)** Involves the analysis of major mass media strategies, tactics, and planning. Prerequisite: A grade of B or better in both JOUR 3732 and JOUR 3743.

**JOUR4463 Campaigns (Sp, Su, Fa)** Applying advertising principles and techniques to prepare a complete campaign; determining agency responsibilities, marketing objectives and research, media mix, and creative strategy. Emphasis is placed on the analysis of major mass media strategies, tactics, and planning. Prerequisite: A grade of B or better in both JOUR 3732 and JOUR 3743.

**JOUR4503 Advanced Feature Writing (Fa)** This course is designed for students with proven feature writing skills and basic training, to write a magazine-length, non-fiction, publishable-quality story on a timely subject that has connections to northwest Arkansas. Stories will be published in a student-managed forum. Prerequisite: JOUR 3123.

**JOUR4553 Magazine Editing and Production I (Sp, Su, Fa)** Involves the layout and production choosing. Prerequisite: JOUR 1033.

**JOUR3743 Public Relations Principles (Sp, Su, Fa)** Study of theory, methods, and ethics, public relations in modern society, business, and communications. Emphasis on opinion through acceptable performance and 2-way communication. Recommended for students in many fields. Prerequisite: Junior standing and 2.25 overall grade point average.

**JOUR3743V Public Relations Seminar (Irregular)** Prerequisite: JOUR 3743 and JOUR 3743L.

**JOUR3743L Public Relations Seminar I Laboratory (Irregular)** Emphasis on locating subjects, and on writing techniques and principles of coverage of sports and sports-related subjects on and off the field, and on the relationship between sports and the mass media. Prerequisite: JOUR 3732.

**JOUR3753 Business Management of Journalism (Sp, Su, Fa)** Emphasis on management, vocabulary, and situationally specific expressions in news and advertising copy. Prerequisite: JOUR 3071L and JOUR 3071.

**JOUR3753L Business Management of Journalism Laboratory (Irregular)** Prerequisite: JOUR 3753.

**JOUR4873 Television News Reporting II (Sp, Fa)** Continuation of JOUR 4873. Laboratory component arranged. Prerequisite: JOUR 4873.

**JOUR4883 Advanced Television News Production (Irregular)** Involves the design, production, and management of TV news programs. Prerequisite: JOUR 3071L and JOUR 3071.

**JOUR4413 Broadcast Advertising and Sales (Sp, Fa)** Emphasis on strategy, the written message, and the physical appearance for the advertisement. Includes laboratory component. Prerequisite: A grade of B or better in both JOUR 3703 and JOUR 3743.

**JOUR4423 Creative Strategy and Execution (Sp, Fa)** The creation of advertising copy and layout for the mass media with emphasis on strategy, the written message, and the physical appearance for the advertisement. Includes laboratory component. Prerequisite: A grade of B or better in both JOUR 3703 and JOUR 3743.

**JOUR4443 Media Planning & Strategy (Sp, Fa)** Includes the study of media characteristics, market research, media strategies, media analysis, media-market measurement, and the development of media plans. Emphasis is placed on the analysis of major mass media strategies, tactics, and planning. Prerequisite: A grade of B or better in both JOUR 3732 and JOUR 3743.

**JOUR4463 Campaigns (Sp, Su, Fa)** Applying advertising principles and techniques to prepare a complete campaign; determining agency responsibilities, marketing objectives and research, media mix, and creative strategy. Emphasis is placed on the analysis of major mass media strategies, tactics, and planning. Prerequisite: A grade of B or better in both JOUR 3732 and JOUR 3743.

**JOUR5193 Professional Journalism Seminar (Irregular)** Examination of complex problems encountered by professional journalists with focus on research and analysis.
Course Descriptions

Kinesiology (KINS)

KINS2223 Motor Development (Sp, Su, Fa) An overview of contemporary motor development and movement theory, developmental hierarchies, and physiological aspects of development throughout the lifespan.

KINS2393 Prevention and Care of Athletic Injuries (Irregular) Introduction to the prevention and care of athletic related injuries. Includes athletic injury recognition and management, rehabilitation and return to play, and nutrition and fluid management. Prerequisite: BIOL 2211L.

KINS3163 Exercise Physiology: Theory and Application (Sp, Fa) Examination of the changes during childhood and adolescence of physiological responses to exercise. The exploration includes the study of the maturation of the body’s functional capacities as it relates to exercise. Designed for Physical Education majors. Prerequisite: BIOL 2243 and BIOL 2441L and KINS 2223; for K-12 physical education majors, BIOL 2211L.

KINS3164 Exercise Physiology: Laboratory (Sp, Fa) Examination of the changes during childhood and adolescence of physiological responses to exercise. The exploration includes the study of the maturation of the body’s functional capacities as it relates to exercise. Designed for Physical Education majors. Prerequisite: KINS 3163.

KINS405V Independent Study (Sp, Su, Fa) (1-3) Provides students an opportunity to pursue special study of research problems. May be repeated for up to 12 hours of degree credit.

KINS4323 Analytical Basis of Movement Science (Sp) Study of the practical applications of biomechanical and physiological principles. Prerequisite: KINS 3353 and KINS 3503.

KINS4413 Organization, Management, and Marketing Skills for the Kinesiology Professional (Sp, Fa) Organizational policies, management principles, and marketing skills for the Kinesiology professional.

KINS4773 Performance and Drugs (Sp) The psychological and physiological effects of ergogenic aids upon the athlete and performance coupled with the ethical and moralistic viewpoints of drug taking. Practical laboratory experiences are provided with pertinent statistical surveys of athletes; their drug taking habits and relevant psychological impact on performance. Prerequisite: KINS 3153.

KINS504J Internship in Exercise Science (Sp, Fa) Provides opportunities for students in Exercise Science to gain experience in clinics, hospitals, fitness centers, athletic teams, or in other related environments. Required of all M.A. physical education majors. Prerequisite: KINS 3353 and KINS 3503.

KINS54903 Internship in Exercise Science (Sp, Fa) Provides opportunities for students in Exercise Science to gain experience in clinics, hospitals, fitness centers, athletic teams, or in other related environments. Required of all M.A. physical education majors. Prerequisite: KINS 3353 and KINS 3503. May be repeated for up to 12 hours of degree credit.

KINS5212 Athletic Training Clinical I - Application of Athletic Preventive Devices (Su) This course will serve as an introduction to the athletic training clinical program. Procedures and policies of the clinical program and application of knowledge and clinical experiences will be included as well. Prerequisite: Admission to the graduate program in athletic training.

KINS5222 Athletic Training Clinical II - Evaluation Lab - Lower Extremities (Sp) This course will serve as a process for monitoring student’s progression of athletic training competencies, acquire clinical hours under the direct supervision of a certified athletic trainer, and reinforce the evaluation skills of gait, lower extremity, and spine/shoulder. Prerequisite: KINS 5212.

KINS5232 Athletic Training Clinical III - Evaluation - Upper Extremity (Sp) This course will serve as a process for monitoring student’s progression of athletic training competencies, acquire clinical hours under the direct supervision of a certified athletic trainer, and reinforce the evaluation skills of the upper extremities, head, neck, and shoulders. Prerequisite: KINS 5232.

KINS5242 Athletic Training Clinical IV - Emergent Procedures/Modality Lab (Su) This course will serve as a process for monitoring student’s progression of athletic training competencies, acquire clinical hours under the direct supervision of a certified athletic trainer, reinforce emergency procedures and serve as a lab for therapeutic modalities. Prerequisite: KINS 5232.

KINS5252 Athletic Training Clinical V - Rehabilitation Lab (Fa) This course will serve as a process for monitoring student’s progression of athletic training competencies, acquire clinical hours under the direct supervision of a certified athletic trainer, reinforce emergency procedures and serve as a lab for therapeutic modalities. Prerequisite: KINS 5242.

KINS5262 Athletic Training Clinical VI - Athletic Training Seminar (Sp) This course will serve as a process for monitoring student’s progression of athletic training competencies, acquire clinical hours under the direct supervision of a certified athletic trainer, and serve as a capstone experience validating the athletic training clinical proficiencies and prepare students for the NATABOC certification exam and future employment. Prerequisite: KINS 5252.

KINS5523 Biomechanics I (Fa) Intended to serve as an introduction to the concepts of scientific principles involved in understanding and analyzing human motion.

KINS5533 Instrumentation in Biomechanics (Odd years, Sp) The application of knowledge and skills necessary for the correct and efficient use of scientific instrumentation. Provides practical, valuable information on instrumentation used specifically in biomechanics. Prerequisite: KINS 5323.

KINS5563 Evaluation Techniques of Athletic Injuries - Upper Extremity (Sp) Use of scientific assessment methods to recognize and evaluate the nature and severity of athletic injuries to the upper extremities, trunk, and head. Prerequisite: Admission to graduate athletic training program.

KINS5573 Evaluation Techniques of Athletic Injuries - Lower Extremity (Fa) Use of scientific assessment methods to recognize and evaluate the nature and severity of athletic injuries to the hip and lower extremities. Prerequisite: Admission to graduate athletic training program.

KINS55423 Assessment and Prescriptive Programming in Adapted KINS (Odd years, Sp) Instruction in the assessment, prescription, and use of instruction methods, materials, and equipment relevant to specific handicapping conditions in the adapted physical education setting.

KINS55463 Therapeutic Modalities in Athletic Training (Su) Contemporary therapeutic modalities used in managing athletic injuries. Modalities covered are classified as thermal agents, electrical agents, or mechanical agents. Emphasis is placed particularly on their physiological effects, therapeutic indications (and contraindications), and clinical application. Prerequisite: Admission to graduate athletic training program.

KINS567V Internship (Irregular) (1-3) May be repeated for up to 3 hours of degree credit.

KINS574V Internship (Sp, Su, Fa) (1-6) Required of all M.A. journalism students.

KINS5953 Introduction to Cardiac Rehabilitation (Sp) A continuing education setting.

KINS6323 Biomechanics II (Odd years, Su) Prerequisite: KINS 5323.

KINS650V Independent Study (Sp, Su, Fa) (1-6) May be repeated for up to 3 hours of degree credit.

KINS6523 Biomechanics II (Odd years, Su) Analysis of human movement with emphasis on sports skills by application of principles of anatomy, kinesiology, and biomechanical analysis. Prerequisite: KINS 5323.

KINS654V Independent Study (Sp, Su, Fa) (1-3) Development, implementation, and completion of basic or applied research project. Prerequisite: M.S. degree program in exercise and movement sciences and HKRD 5353 and EDFD 5393.

KINS655V Master’s Thesis (Sp, Su, Fa) (1-6) Provides students with an opportunity to pursue special study of educational problems. May be repeated for up to 3 hours of degree credit.

KINS656V Independent Study (Sp, Su, Fa) (1-3) Provides students with an opportunity to pursue special study of educational problems. May be repeated for up to 3 hours of degree credit.

KINS657V Internship (Irregular) (1-3) May be repeated for up to 3 hours of degree credit.
LARC1003 Basic Course in the Arts: The American Landscape (Sp, Fa) Mankind’s changing attitudes toward urban and rural outdoor spaces and their aesthetic and cultural values of the environment, observation movement and the development of an American land ethic. Appreciation of the relationship of the natural and historic landscape to the arts and the aesthetic importance of open spaces.

LARC1211 Introduction to Landscape Architecture I (Fa) This course is an interdisciplinary introduction to basic principles of design, the natural landscape, urbanism and the public realm. Lecture is one hour per week. Corequisites: LARC 1211 and LARC 1315. Corequisites: LARC 1212. LARC1315 Landscape Architecture Design I (Su, Fa) Theory and craft of seeing, drawing, and model-building to record and communicate a design. Basic design principles with architectural and natural geometries are introduced and employed. Studio and lecture. Corequisite: LARC 1211. LARC3256 Landscape Architecture Design II (Sp, Su) Basic concepts of spatial, visual, and experiential analysis are used in the investigation and evaluation of designed landscapes. Introduction to three-dimensional spatial organization systems and principles. Continued drawing exercises and analysis graphics leading design to conceptualization. Studio and lecture. Corequisite: LARC 1211.

LARC2113 Design Communications I (Sp, Fa) studio and lecture. Prerequisite: LARC 1211. LARC1315 Landscape Architecture Design I (Su, Fa) Theory and craft of seeing, drawing, and model-building to record and communicate a design. Basic design principles with architectural and natural geometries are introduced and employed. Studio and lecture. Corequisite: LARC 1211. LARC3256 Landscape Architecture Design II (Sp, Su) Basic concepts of spatial, visual, and experiential analysis are used in the investigation and evaluation of designed landscapes. Introduction to three-dimensional spatial organization systems and principles. Continued drawing exercises and analysis graphics leading design to conceptualization. Studio and lecture. Corequisite: LARC 1211.

LARC213 Design Communications II (Sp) Continuation of LARC 2113 with a focus on computer technologies in two-dimensional graphic representation and three-dimensional spatial organization systems. Continued drawing exercises and analysis graphics leading design to conceptualization. Studio and lecture. Corequisite: LARC 1211.

LARC3256 Landscape Architecture Design III (Fa) Introduction to design process(es) which responds to site and context. Reinforcement of design principles and organization systems applied to small scale design projects. Studio and lecture. Prerequisite: LARC 2336 and LARC 3413.

LARC2714 Landscape Architecture Construction I (Sp) (Grading) Introduction to landscape architectural construction with an emphasis on grading, earthwork computations, and technical drawing skills. Introduction to roadway alignment, the land survey system, and construction documents. Lecture and laboratory.

LARC302V Special Studies (Irregular) (1-6) Individual or group study and project work that involves architectural design, history, and environmental analysis. May be repeated for up to 6 hours of degree credit.

LARC303V Special Projects (Irregular) (1-6) Design implementation, study, practicum, and preparation of working drawings.

LARC3356 Landscape Architecture Design V (Fa) (Formerly LARC 3355) Investigation of social behavior and influence of landscape design on human needs. Projects reflect increased scope, scale, and resolution with a detailed design component. Studio and lecture. Prerequisite: LARC 2346 and LARC 2714; and acceptance into the professional program.

LARC3366 Landscape Architecture Design VI (Sp) (Formerly LARC 4365) Investigation of ecological determinism, historic and contemporary planning, and sustainable design as distinct approaches to landscape architecture. Studio and lecture. Prerequisite: LARC 3356.

LARC3413 History of Landscape Architecture (Fa) Analysis of the interaction between existing landscapes and human cultural development as reflected in the meaning and organization of landscape designs at community and project scales from the Neolithic period to the mid-nineteenth century.

LARC3724 Landscape Construction II (Fa) Introduction to landscape architectural materials and methods of construction and assembly. Emphasis on material properties and how those properties affect the materials used in the landscape and interactions with other materials. Introduction to dimensioning and layout systems and parking requirements with increased complexity of construction documents. Lecture and laboratory.

LARC3734 Landscape Architecture Construction III (Sp) (Structures) Introduction into the design and fabrication methods of structures in the landscape. Emphasis on statics in calculating sizes and selection of materials for free-standing and retaining walls, and wooden structures. Advanced technical drawing component and computer integration of drawing production. Lecture and laboratory. Prerequisite: LARC 3723.

LARC3821 Study Abroad Preparation (Sp) Orientation to the geography, history, and culture of the countries and sites to be studied during the study abroad program. Lecture.

LARC3914 Planting Design I (Sp) Introduction to small scale projects involving use of plant materials in relation to other landscape elements, formulation of a vocabulary of plant materials, planting plans and applicable specifications. Includes laboratory. Corequisite: HORT 3103.

LARC3933 Cultural Landscape Studies (Su) The examination of cultural landscapes and their evolution and development. Includes study of cultural, political, and site context influences. Required field trip component of study abroad. Prerequisite: LARC 3413 and LARC 3821.

LARC4123 Urban Form Studies (Su) The examination of urban, village, and suburban form and its influencing forces. Includes study of cultural forces, technological development, and physical shape, scale, and materials that define urban areas. Required field trip component of study abroad. Prerequisite: LARC 3413 and LARC 3821.

LARC4376 Landscape Architecture Design VII (Fa) (Formerly LARC 4375) Synthesis of all previous course work; an introduction to the theory and practice of larger scale planning with an emphasis on design of systems in urbanizing environments. Studio and lecture. Prerequisite: LARC 3366 and LARC 4413.

LARC4381 Landscape Project Preparation (Sp) (Formerly LARC 4381) Definition and planning of personally selected senior demonstration project. Requires full documentation of topical research, program development, site data collection and analysis, and site project base maps. Studio and lecture. Prerequisite: LARC 4376.

LARC4413 Contemporary Landscape Architecture (Sp) Critical study and analysis of landscape architecture from the 1940’s to the present, focusing on the philosophical and design theories that have influenced the form of gardens, parks, and cities.

LARC4714 Landscape Architecture Construction IV (Sp) (Systems) Introduction to systems of landscape architectural construction including stormwater management, lighting, irrigation, water features, and erosion control. Emphasis on the theory and function of these components in the landscape design and their role in the overall landscape design.

LARC4743 Site Planning for Non-Landscape Architects (Irregular) Problems in analysis and synthesis of elements used in landscape design with emphasis on grading and drainage and the relationship of structure to site. Lecture and laboratory 6 hours per week.

LARC5043 Landscape Architecture Seminar (Irregular) The role of the landscape architect in contemporary society; how this is affected by technological change and awareness of ecological problems. Group discussions, individual research projects, and guest lectures. Prerequisite: Fourth-year standing.

LARC5053 Historic Landscape Preservation (Irregular) Survey of historic preservation as a profession and the evolution of landscape preservation movement. Introduction to preservation principles as described by the Secretary of the Interior Standards and Guidelines. Analysis of case studies will reinforce basic philosophies and introduce preservation approaches. Prerequisites: LARC 3413 and LARC 4413.

LARC5285 Alternative Stormwater Management (Irregular) Introduction to the role of alternative stormwater management techniques toward a more sustainable development to include constructed wetlands, bioswales, rain water harvesting, green roofs, and other stormwater reduction techniques. Emphasis on multidisciplinary team approach to problem solving. This course is open to non-majors and includes both lecture and laboratory time.

LARC5286 Landscape Architecture Design VIII (Senior Demonstration Project) (Fa) (Formerly LARC 5385) Advanced design studio with an emphasis on individual or team research and design resolution. Includes all aspects of design process: inventory, programming, graphic documentation, formal oral presentation, and a written report. Prerequisite: LARC 4383 and LARC 4378.

LARC5613 Landscape Architectural Practice and Project Manual (Fa) Professional responsibilities and related aspects of landscape architecture practice: ethics; office organization; client, contractor and landscape architect relationships; legal issues, contracts and documents; regulations; review of bidding and contractual documents.

Latin American Studies (LAST)

LAST2013 Latin American Studies (Fa) This course provides an interdisciplinary introduction to Latin America. Drawing on Latin American literature, history, sociology, and political science, the course examines the broad forces that have shaped the region. (Same as ANTH 393)

LAST301 Modern Latin American Literature in Translation (Irregular) This course introduces the rich cultural diversity and complexity of Latin America, through the exploration of outstanding and representative examples of the region’s modern literature.

LAST399H Honors Thesis (Sp, Su, Fa) (1-6) Prerequisite: Junior standing.

LAST4003 Latin American Studies Colloquium (Sp) An interdepartmental colloquium with an annual change in subject of investigation, required of all Latin American studies majors.

LAST4413 Latin American and Latino Studies (Fa) Introduction to the geography, history, and culture of the countries and sites to be studied during the study abroad program. Lecture.

LAST4740V Special Topics (Irregular) (1-6) An examination of pertinent issues in Latin America.

Latin (LATN)

LATN1003 Elementary Latin I (Fa) The rudiments of classical Latin, with concentration on grammar, vocabulary, and syntax. Short selections from ancient authors lead to basic reading ability.

LATN1013 Elementary Latin II (Sp) A continuation of the rudiments of classical Latin, with concentration on grammar, vocabulary, and syntax. Short selections from ancient authors lead to basic reading ability. Prerequisite: LATN 1003 or equivalent.

LATN2003 Petronius’ Satyricon (Fa) Development of reading skills through selections from Satyricon, and an introduction to imperial history and culture through critical study of the novel in translation. Prerequisite: LATN 1013 or equivalent.

LATN2013 Catullus (Sp) Development of reading skills through selections from Catullus’ poems, and an introduction to the culture and history of the late republic through critical study of Catullus in translation and secondary works. Prerequisite: LATN 2003 or equivalent.

LATN3003 Virgil and Ovid (Fa) Selections from the Aeneid and/or the Metamorphoses, and an introduction to Roman literary history through the critical study of these works in translation. Prerequisite: LATN 2013 or equivalent.

LATN3013 Caesar (Sp) Selections from Cae- sar’s commentaries on Gallic or Civil Wars, and an overview of Republican political and military history through the critical study of the commentaries in translation and secondary works. Prerequisite: LATN 3003 or equivalent.

LATN3063 Intensive Elementary Latin Reading University of Arkansas, Fayetteville 367
(SU) Overview of Latin grammar, vocabulary and syntax, leading to reading prose texts. For undergraduates who want short, intensive Latin and graduate students working towards reading proficiency. Successful completion fulfills graduate student reading requirement. Prerequisite: LATN 3003 alone cannot fulfill FLAN requirement in fulfillment of degree credit. LATN 4003 Roman History (Irregular) Selections from Sallust, Livy, Tacitus, or Suetonius. An overview of Roman philosophy through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4013 Roman Satire (Irregular) Selections from the satires of Horace, Juvenal, Persius, or Seneca. An overview of Roman humor and the genre of satire through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4023 Roman Epic (Irregular) Selections from Virgil’s Georgics, Lucretius’ De Rerum Natura, or Manilius’ Astronomica. An overview of Roman philosophical poetry through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4033 Roman Drama (Irregular) Selections from Plautus, Terence, or Seneca. An overview of Roman theater through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4043 Roman Elegy (Irregular) Selections from Propertius, Tibullus, or Ovid. An overview of the genre through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4063 Roman Pastoral and Lyric (Irregular) Selections from Catullus, Virgil’s Eclogues, Horace’s Odys., or Catullus. An overview of the two genres through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent. May be repeated for up to 6 hours of degree credit.

LATN 4073 Roman Novel (Irregular) Selections from Petronius or Apuleius. An overview of the genre through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent. LATN 4073 may be repeated for up to 6 hours of degree credit.

LATN 4093 Roman Philosophy (Irregular) Selections from the philosophical works of Cicero or Seneca. An overview of Roman philosophy through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4095 Narrative Epic (Irregular) Selections from Virgil, Ovid, Lucan, Staurus, or Silicus Italicus. An overview of the genre through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent. May be repeated for up to 6 hours of degree credit.

LATN 4100V Special Investigations (Irregular) (1-6)

LATN 4533 Medieval Latin (Irregular) Selections from medieval Latin sermons from the 11th to the 17th century. Prereq- site: LATN 3003 or equivalent.

LATN 4575V Special Investigations (Irregular) (1-6)

(List) Overview of Latin grammar, vocabulary and syntax, leading to reading prose texts. For undergraduates who want short, intensive Latin and graduate students working towards reading proficiency. Successful completion fulfills graduate student reading requirement. Prerequisite: LATN 3003 alone cannot fulfill FLAN requirement in fulfillment of degree credit. LATN 4003 Roman History (Irregular) Selections from Sallust, Livy, Tacitus, or Suetonius. An overview of Roman philosophy through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4013 Roman Satire (Irregular) Selections from the satires of Horace, Juvenal, Persius, or Seneca. An overview of Roman humor and the genre of satire through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4023 Roman Epic (Irregular) Selections from Virgil’s Georgics, Lucretius’ De Rerum Natura, or Manilius’ Astronomica. An overview of Roman philosophical poetry through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4033 Roman Drama (Irregular) Selections from Plautus, Terence, or Seneca. An overview of Roman theater through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4043 Roman Elegy (Irregular) Selections from Propertius, Tibullus, or Ovid. An overview of the genre through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

LATN 4063 Roman Pastoral and Lyric (Irregular) Selections from Catullus, Virgil’s Eclogues, Horace’s Odys., or Catullus. An overview of the two genres through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent. May be repeated for up to 6 hours of degree credit.

LATN 4073 Roman Novel (Irregular) Selections from Petronius or Apuleius. An overview of the genre through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent. LATN 4073 may be repeated for up to 6 hours of degree credit.

LATN 4093 Roman Philosophy (Irregular) Selections from the philosophical works of Cicero or Seneca. An overview of Roman philosophy through the critical study of complete works in translation and secondary works. Prerequisite: LATN 3013 or equivalent.

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LATN 4100V Special Investigations (Irregular) (1-6)

LATN 4533 Medieval Latin (Irregular) Selections from medieval Latin sermons from the 11th to the 17th century. Prereq- site: LATN 3003 or equivalent.

LATN 4575V Special Investigations (Irregular) (1-6)
of the administrative process (delegations, procedural and substantive due process, judicial assistance and enforcement and review of administrative decisions). LAWW5173 Insurance (Sp, Su, Fa) A study of casualty, fire, and life insurance. Major areas include the duty to defend; duty to settle within policy limits; the definition of what is covered; exposure marketing; underwriting and rating; claims; the measure of recovery; disputes between insurers; defenses such as fraud, concealment, and non-cooperation; and government regulation of insurance.

LAWW5183 Drafting Legal Documents (Irregular) This course will study and practice the principles applicable to drafting of non-litigation documents, such as contracts, wills, and legislation. These include organization and categorization of information, drafting of substantive provisions for completeness and consequences, and choices and precision of language.

LAWW5203 Discrimination in Employment (Irregular) An examination of federal constitutional, statutory, and administrative restrictions that prohibit or limit employers, unions and employment agencies from discriminating on the basis of race, sex, religion, age, national origin and color. In addition to the substantive scope of federal law, emphasis given to enforcement procedures and remedies.

LAWW5213 Business Planning (Irregular) Synthesis of legal principles dealing with taxation and form of business organization to provide guidance in choosing form and operating business entities.

LAWW5223 Interviewing, Counseling, and Negotiation (Irregular) Develop fundamental lawyer's skills, using role playing exercises that are videotaped and critiqued. Focus on interpersonal dynamics in client representation, techniques for fact investigation, and creative decision making. This course will satisfy the skills requirement.

LAWW5243 Business and Commercial Torts (Irregular) Course will explore the legal relationship between competition and intangible property. Covers the spectrum of private remedies for competitive wrongs. Includes unfair competition, misappropriation of trade secrets, trademark infringement, false advertising, etc. Course is designed for students planning to practice in the areas of commercial, corporate, business or intellectual property law.


LAWW5313 Negotiable Instruments (Sp, Su, Fa) Study of Articles 3 and 4 of the Uniform Commercial Code dealing with documents of title.

LAWW533V Election Law (Irregular) (1-3) LAWW5363 Securities Regulation (Sp, Su, Fa) Regulation of issuance of and trading in stocks, bonds and other securities issued by large private commercial entities, with particular reference to the SEC. Not offered every year.

LAWW5504 Decedent's Estates (Sp, Su, Fa) LAWW5513 Labor Relations in the Private Sector (Sp, Su, Fa) Analysis of the legal issues created in oil and gas, the rights of the landowner, provisions created in oil and gas leases, the rights of assignees, and legislation created in oil and gas, the rights of the landowner, provisions created in oil and gas leases, the rights of assignees, and legislation covering certain aspects of e-commerce.

LAWW5550 Real Estate (Sp, Su, Fa) Study of the legal principles involved in problems which have arisen in the oil and gas lease, the rights of assignees, and legislation created in oil and gas leases, the rights of assignees, and legislation.

LAWW5603 Advanced Torts: Dignitary and Economic Harm (Irregular) Course will cover defamation, the rights of privacy (including information privacy) and publicity, harm to family relationships, malicious prosecution and interference with common law civil rights.

LAWW5618 Journal of Food Law & Policy Credit (Sp, Su, Fa) Study of state legislation providing remedies for workers injured in the course of their employment. Not offered every year.

LAWW5619 Workers' Compensation (Sp, Su, Fa) Examines the role of lawyers (including ethical considerations) in fact gathering and analysis of data; testamentary and nonprobate transfers; planning for the surviving spouse; revocable and irrevocable trusts; life insurance; disposition of business interests; and post-mortem tax planning. Unless waived by the instructor, prerequisite for taking the class shall be the successful completion of either Decedents' Estates or Federal Estate and Gift Taxation.

LAWW5623 Federal Income Tax of Individuals (Sp, Su, Fa) Fundamentals of the federal income taxation of individuals, including taxable income, deductions, assignments of income, basis, taxation of property transactions, and tax accounting.

LAWW5624 Federal Estate and Gift Taxation (Sp, Su, Fa) Fundamentals of the federal estate and gift tax system. Topics covered include the determination of gifts for tax purposes, amounts included in decedents' gross estates, valuation, deductions and credits.

LAWW5625 Federal Income Taxation of Business Entities (Sp, Su, Fa) Focus on tax issues in business formation, operation, distributions, and liquidations. Prerequisites: LAWW 5033 and LAWW 5233.

LAWW5632V Estate Planning (Sp, Su, Fa) Study of the role of lawyers (including ethical considerations) in fact gathering and analysis of data; testamentary and nonprobate transfers; planning for the surviving spouse; revocable and irrevocable trusts; life insurance; disposition of business interests; and post-mortem tax planning. Unless waived by the instructor, prerequisite for taking the class shall be the successful completion of either Decedents' Estates or Federal Estate and Gift Taxation.

LAWW5633V Intellectual Property (Irregular) (2-3) This course will fully explore the legal relationship between competition and intangible property, including copyright, trademark, patent, and unfair competition issues. If time permits, the course may also cover certain aspects of e-commerce.

LAWW6193 Conflict Resolution (Irregular) Exposes methods utilized in the legal profession for resolving disputes. Students develop skills by participating in simulation exercises designed to identify and apply processes. Class readings and class participation are facilitated by student simulations. Designed for second and third year law students.

LAWW6373 Legal Clinic (Federal Practice) (Sp, Su, Fa) Students receive clinical instruction in the practice of law in both state and federal courts and before federal administrative agencies. Although the particular experiences vary, Chapter 7 (no asset) bankruptcies and farm foreclosures are often emphasized. LAWW6383 General Practice & Medical Malpractice (Offered Summer 2022) Students will integrate, extend, and refine their legal knowledge and lawyering skills through representation of clients in civil cases pending before Arkansas Circuit and Chancery Courts, federal bankruptcy or administrative cases pending before the U.S. Bankruptcy Court and Administrative Law Judges, and prosecution of criminal misdemeanor cases. Students are responsible for all aspects of representation including interviewing, counseling, negotiation, pleading and discovery practice, and trial advocacy. This course offers students a opportunity to experience similar to that experienced by many lawyers practicing in small to medium sized firms in Arkansas and other states in the region. Prerequisite: Unless waived by the instructor, a cumulative GPA of 2.00; successful completion of 48 semester hours of offerings, including LAWW 4103, LAWW 4203, LAWW 4173, LAWW 5005, and LAWW 5013; and qualifying for Rule XV practice.

LAWW6393 Legal Clinic (Transactional) (Irregular) Students receive clinical legal experience counseling and representing nonprofit organizations in Arkansas in a wide range of non-litigation business law matters. Services include startup, incorporation, obtaining federal and state tax exemptions, change of business form, purchase and sale of real and personal property, employer and labor law issues, and general contract negotiation, drafting and execution. In addition, students prepare and participate as presenters in a workshop on matters of general interest.
to non-profit organizations. Legal Clinic Faculty supervise and review the student attorney’s work, and provide personal feedback to the individual student. Prerequisite: Mediation in Practice.

LAWW7342 Law and the Internet (IR) Examines the rules and tactics of the Internet, including contract, crime, copyright, free speech, and privacy. Topics will vary but may include the constitutional protection for speech and press, defamation, invasion of privacy, access to government information, publicity and the courts, copyright, liability and disability and the Internet, and family law. The course is highly interactive. In addition to lectures and readings, students will participate in case discussions and presentations.

LAWW7343 Law and the Internet (Sp, Su, Fa) A survey course dealing with an array of legal issues surrounding the Internet, including contract, crime, copyright, free speech, and privacy.

LAWW7512 Mass Communications Law Seminar (Irregular) Study of problems involving the mass media. Topics will vary but may include the constitutional protection for speech and press, invasion of privacy, access to government information, publicity and the courts, copyright, liability and disability and the Internet, and family law. The course is highly interactive. In addition to lectures and readings, students will participate in case discussions and presentations.

LAWW7606V Sports Law (Irregular) (2-3) The major topics covered include significant contract issues, tort liability involving participants, institutions, physicians and equipment manufacturers, criminal liability, drug testing, constitutional and related issues dealing with sports associations and Title 9 and gender equity issues. Other relevant topics may also be covered if possible.

LAWW7072 Advanced Mediation Clinic (Civil Practice) (Irregular) Students will co-mediate civil cases referred by Courts and agencies. Students will work with experienced mediators and the mediation clinic supervisor, who will review their work, provide feedback to the individual student attorneys. Prerequisite: Mediation in Practice.

LAWW7243 Health Law (Sp, Su, Fa) An examination of the role of the law in determining access to and regulation of the quality of services provided by the health care industry. Prerequisites: LAWW2502 Freedom of Information (IR) Examination of federal and state laws governing public access to records and meetings, as well as constitutional issues pertaining to such access. The process of obtaining access, as well as the Freedom of Information Act, is also considered. A research paper is required.

LAWW7342 Law and the Internet (IR) This is a survey course. Students will study laws associated with the Internet. Topics will vary but may include the constitutional protection for speech and press, invasion of privacy, access to government information, publicity and the courts, copyright, liability and disability and the Internet, and family law. The course is highly interactive. In addition to lectures and readings, students will participate in case discussions and presentations.

LAWW7606V Sports Law (Irregular) (2-3) The major topics covered include significant contract issues, tort liability involving participants, institutions, physicians and equipment manufacturers, criminal liability, drug testing, constitutional and related issues dealing with sports associations and Title 9 and gender equity issues. Other relevant topics may also be covered if possible.

LAWW7072 Advanced Mediation Clinic (Civil Practice) (Irregular) Students will co-mediate civil cases referred by Courts and agencies. Students will work with experienced mediators and the mediation clinic supervisor, who will review their work, provide feedback to the individual student attorneys. Prerequisite: Mediation in Practice.

LAWW7243 Health Law (Sp, Su, Fa) An examination of the role of the law in determining access to and regulation of the quality of services provided by the health care industry. Prerequisites: LAWW2502 Freedom of Information (IR) Examination of federal and state laws governing public access to records and meetings, as well as constitutional issues pertaining to such access. The process of obtaining access, as well as the Freedom of Information Act, is also considered. A research paper is required.

LAWW7342 Law and the Internet (IR) This is a survey course. Students will study laws associated with the Internet. Topics will vary but may include the constitutional protection for speech and press, invasion of privacy, access to government information, publicity and the courts, copyright, liability and disability and the Internet, and family law. The course is highly interactive. In addition to lectures and readings, students will participate in case discussions and presentations.

LAWW7606V Sports Law (Irregular) (2-3) The major topics covered include significant contract issues, tort liability involving participants, institutions, physicians and equipment manufacturers, criminal liability, drug testing, constitutional and related issues dealing with sports associations and Title 9 and gender equity issues. Other relevant topics may also be covered if possible.

LAWW7072 Advanced Mediation Clinic (Civil Practice) (Irregular) Students will co-mediate civil cases referred by Courts and agencies. Students will work with experienced mediators and the mediation clinic supervisor, who will review their work, provide feedback to the individual student attorneys. Prerequisite: Mediation in Practice.

LAWW7243 Health Law (Sp, Su, Fa) An examination of the role of the law in determining access to and regulation of the quality of services provided by the health care industry. Prerequisites: LAWW2502 Freedom of Information (IR) Examination of federal and state laws governing public access to records and meetings, as well as constitutional issues pertaining to such access. The process of obtaining access, as well as the Freedom of Information Act, is also considered. A research paper is required.

LAWW7342 Law and the Internet (IR) This is a survey course. Students will study laws associated with the Internet. Topics will vary but may include the constitutional protection for speech and press, invasion of privacy, access to government information, publicity and the courts, copyright, liability and disability and the Internet, and family law. The course is highly interactive. In addition to lectures and readings, students will participate in case discussions and presentations.

LAWW7606V Sports Law (Irregular) (2-3) The major topics covered include significant contract issues, tort liability involving participants, institutions, physicians and equipment manufacturers, criminal liability, drug testing, constitutional and related issues dealing with sports associations and Title 9 and gender equity issues. Other relevant topics may also be covered if possible.

LAWW7072 Advanced Mediation Clinic (Civil Practice) (Irregular) Students will co-mediate civil cases referred by Courts and agencies. Students will work with experienced mediators and the mediation clinic supervisor, who will review their work, provide feedback to the individual student attorneys. Prerequisite: Mediation in Practice.
on and off the reservation; American Indian land claims; land, hunting, and fishing rights; water rights; American Indian health, tribal protocols, and law; federal tax, estate tax, individual and tribal treaty rights; federal Indian policy; and zoning and environmental controls. LAW777V Master's Thesis in Agricultural Law (Sp, Su, Fa) Research in a specialized area of agricultural law and development of a scholarly paper containing the results of this research. LAW777V Independent Research in Agricultural Law (Sp, Su, Fa) (1-2) Independent research in agricultural law conducted under the supervision of a faculty member. LAW777V Agricultural Taxation (Irregular) (1-3) Income taxation of the farm business and a review of accounting and tax planning concepts of particular importance to the farming enterprise, including provisions relating to capital gains treatment of agricultural assets, agricultural "tax shelters", deferred payment contracts, installment sales, depreciation of farm assets, and commodities trading. LAW7752 Agricultural Cooperatives (Irregular) Examination of the law governing the organization and operation of farmer owned cooperatives, with an emphasis on New Generation value added processing cooperatives. Among the topics covered are cooperative taxation and aspects of antitrust and securities law applicable to agricultural cooperatives.

LAW7753 Agriculture and the Environment (Sp, Su, Fa) Analysis of the impact of federal and state environmental law to agricultural operations. Topics include soil erosion, takeoffs, pesticide law, the Clean Water Act, the Clean Air Act, common law nuisance, drainage, wildlife, and endangered species.

LAW7751 Agricultural Finance and Credit (Sp, Su, Fa) Study of the legal issues surrounding the financing of agricultural operations, including credit availability, agricultural security issues under the Uniform Commercial Code, and debt restructuring opportunities. Special focus is on lending options offered by the Farm Service Agency and the Farm Credit System.

LAW7773 Water Law (Sp, Su, Fa) Study of real property principles governing ownership rights in water and the federal and state statutes controlling the use of water.

LAW7782 Agricultural Labor Law (Sp, Su, Fa) Study of the federal laws that govern the employment of agricultural workers, including wage and hour provisions, laws impacting migrant and seasonal farm workers, immigration issues, occupational safety and health, and child labor laws.

LAW7783 Agricultural Administrative Procedure and Practice (Sp, Su, Fa) Focus on administrative practice before the USDA and the judicial review of USDA agency decisions. Special emphasis on the interplay of federal and state statutes controlling the use of water.

LAW7782 Agricultural Labor Law (Sp, Su, Fa) Study of the federal laws that govern the employment of agricultural workers, including wage and hour provisions, laws impacting migrant and seasonal farm workers, immigration issues, occupational safety and health, and child labor laws.

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LAW7773 Water Law (Sp, Su, Fa) Study of real property principles governing ownership rights in water and the federal and state statutes controlling the use of water.

LAW7782 Agricultural Labor Law (Sp, Su, Fa) Study of the federal laws that govern the employment of agricultural workers, including wage and hour provisions, laws impacting migrant and seasonal farm workers, immigration issues, occupational safety and health, and child labor laws.
MATH4163 Dynamic Models in Biology (Irregular) Mathematical and computational techniques for developing dynamic models in biology, including the biological sciences. Both discrete and continuous time models are studied. Applications include population dynam- ics, cellular dynamics, and the spread of infectious diseases. Prerequisite: MATH 2574. (Same as BIOL 4163.)

MATH4253 Symbolic Logic I (Fa) Rigorous analyses of the concepts of proof, consistency, equivalence, validity, implication, and truth. Full coverage of truth-functional logic and quantifiers. Prerequisite: MATH 2504. Discussion of the nature and limits of mechanical procedures (algorithms) for proving theorems in logic and mathematics. Informal accounts of the basic facts about infinite sets. (Same as PHIL, and Phys 2054.)

MATH4353 Numerical Linear Algebra (Sp) Numeri- cal methods for problems of linear algebra, including the solution of very large systems, eigenvalues, and eigenvectors. Prerequisite: MATH 3404.

MATH4363 Numerical Analysis (Fa) General itera- tive techniques, error analysis, root finding, interpolation, approximation, numerical integration, and numerical solution of differential equations. Prerequisite: MATH 3404.

MATH4443 Complex Variable for Application (Sp) Complex analysis, series, and conformal mapping. Additional applications for graduate credit. Prerequisite: MATH 3404.

MATH5033 Differential Geometry and Vector Calculus (Irregular) Topics include: Vector differential and integral calculus, Stokes' Theorem in 3-space, classical differential geometry in 3-space (curves, surfaces), differential forms, general Stokes' Theorem, applications to hydrodynam- ics, and electromagnetism. Prerequisite: MATH 3083 and MATH 4513.

MATH4513 Advanced Calculus I (Fa) The real and complex number systems, basic set theory and topology, sequences and series, continuity, differentiation, and Taylor's theorem. Emphasis is placed on careful mathematical reasoning. Prerequisite: MATH 2574 and MATH 3083.

MATH5233 Advanced Calculus II (Sp) The Rieman-Stieltjes integral, uniform convergence of functions, Fourier series, implicit function theorem, Jacobians, and derivatives of higher order. Prerequisite: MATH 4513.


MATH5533 Theory of Functions of a Real Variable I (Sp) Measure and integration on abstract measure spaces, signed measures, Hahn decomposition, Radon-Nikodym theorem, Lebesque decomposition, measures on algebras and their extensions, product measures, and Fubini's theorem. Prerequisite: MATH 5503.

MATH5523 Theory of Functions of a Complex Variable I (Fa) Complex number systems, basic set theory and topology, complex integration, Cauchy's Theorem and integral formula, maximum principle, singularities, Laurent series, and Miobius maps. Prerequisite: MATH 4513.

MATH5533 Theory of Functions of a Complex Variable II (Sp) Riemann Mapping Theorem, analytic continuation, harmonic functions, and entire functions. Prereq- uitement: MATH 5523.

MATH5703 Foundations of Topology (Fa) Metric and general topological spaces, separation axioms, Urysohn's lemma, Tietze extension theorem, connectedness, compactness, and the Tychonoff theorem. Prerequisite: MATH 4513.

MATH5713 Algebraic Topology (Fa) Homotopy, singular and relative homology, excision theorem, the Mayer-Vietoris sequence, Bott numbers, and the Euler characteristic. Prerequisite: MATH 5703.

MATH600V Vector Calculus Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

MATH610V Directed Readings (Irregular) (1-6) Prerequisite: Graduate standing.

MATH619V Topics in Algebra (Sp, Su, Fa) (1-6) May not be repeated for up to 3 hours of degree credit.

MATH659V Topics in Analysis (Sp, Su, Fa) (1-6) Current research interests in analysis. Prerequisite: MATH 5703.

MATH679V Topics in Topology (Sp, Su, Fa) (1-6) Current research interests in topology. Prerequisite: MATH 5713.

MATH700V Doctoral Dissertation (Sp, Su, Fa) (1-18) May not earn credit for this course and MATH 4353 or MATH 4353.

MEEG2003 Statics  (Sp, Su, Fa) (1-6) Prerequisite: PHYS 2054. (Same as BME 4003.) Rigid bodies, kinematics and kinetics of particle and of rigid bodies; work and energy; impul- se and momentum, and special topics. Prerequisite: Drill component. Corequisite: PHYS 2054.

MEEG2023 Introductory Mechanics (Sp, Su, Fa) Kinematics and kinet- ics of particle and of rigid bodies; work and energy; im- pulse and momentum, and special topics. Prerequisite: Drill component. Prerequisite: PHYS 2054.

MEEG2030 Statics (Sp, Su, Fa) Equilibrium and resultants of force systems in a plane and in space; analysis of structures, friction, centroids, moments of inertia, and virtual work method. Methods of analysis are emphasized. Corequisite: Drill component. Pre- or Corequisite: MATH 2574.

MEEG2033 Dynamics (Sp, Su, Fa) Kinematics and kinetics of particle and of rigid bodies; work and energy; impul- se and momentum, and special topics. Prerequisite: Drill component. Prerequisite: MEEG 2030.

MBAD51V1 Corporate Financial Management (Sp) (1-6) Corequisite: MBAD 5122 and MBAD 5222.

MBAD51V2 Accounting Decisions and Control (Su) (2-3) Preparation and utilization of financial informa- tion for internal management purposes: planning and special decisions, cost determination, performance evaluation, and controls. Prerequisite: MATH 5523.

MBAD51V3 Information Technology and Decision Making (Fa) (2-3) Utilization of information, quantitative techniques, and computer application in decision making and control. Prerequisite:MBAD 5122 and MBAD 5222.

MBAD52V1 Leading High Performance Organiza- tions (Irregular) Global and local organizations including human resource issues, motivation, performance evaluation, quality concepts, transformational leadership, and selection/ recruitment/ development of employees. Corequi- site: MBAD 5122 and MBAD 5222.

MBAD52V2 Managing Ideas, Products, and Ser- vices (Irregular) (2-3) Product management, market research, marketing communications, retailing and distribu- tion, consumer behavior, and social and ethical implications of marketing. Corequisite: MBAD 5122 and MBAD 5132.

MBAD52V3 Economics of Management and Strat- egy (Irregular) (2-3) Microeconomic and macroeconomic theory and their application to business organizations. Prerequisite: MBAD 5122 and MBAD 5132.

MBAD52V4 Ethical Decision Making (Fa) Business Ethics will address business ethics issues from a personal, professional, and organizational perspective. We will cover basic ethical decision-making frameworks to help inform students' personal moral frameworks, ethical issues that are most relevant to managers of modern organizations, and the role of hypocrisy in ethical decision-making. Prerequisite: MBAD 535V MBA Internship (Su) (1-3) This course allows a student to experience an internship within a business and benefit from the applied experience. The internship may be designed to give the student experience with different businesses. The internship must be supervised by a faculty member as well as a member of the firm. The course may be taken for 1-3 credits. MBA Director approval required. May be repeated for up to 3 hours of degree credit.

MBAD536V Study Abroad-Special Problems (Su) Prerequisite: MBA students. Students entering the Mechanical Engineer- ing Department are expected to possess basic competency in computer-aided design. Students need to pass a competency test. Deficiencies may be remedied through self-paced, computer-based instruction. Prerequisite: GENG 1121.

MBAD5313 Project Management (Irregular) (1-3) This course covers the creation, implementation, and evaluation of projects. It is intended for MBAD students. Topics may include project management, project implementation, the financial management of projects, project evaluation, project risk assessment, and project planning. Prerequisite: MBAD 5313.

MBAD535V Capstone Project Management (Irreg- ular) (1-3) The purpose of the capstone project is to provide MBAD students with an opportunity to apply the knowledge and skills they have acquired during their studies in a comprehensive project. Prerequisite: MBAD 5313.

MBAD5413 Partnering Project (Irregular) A large- scale project involving 10 weeks of hands-on work addressing issues faced by managers in partnering firms. Corequisite: MBAD 5313 and MBAD 5423.

MBAD5423 Partnering Project II (Sp) Continuation of MBAD 5413. Corequisite: MBAD 5313 and MBAD 5413.

MBAD5433 Capstone Project (Su) A large-scale project integrating various business topics. Corequisite: MBAD 5313.

MBAD5511 Professional Development -- Special Topics in Business (Sp, Fa) A concentrated emphasis on one business topic. Corequisite: MBAD 5212, MBAD 5212 and MBAD 5232. Prerequisite: MBAD 5203. May be repeated for up to 5 hours of degree credit.

MBAD5602 Introduction to the Value Chain (Su) An introduction to the value chain concept, the underlying framework of the Managerial MBA program. Topics include the primary value chain activities of inbound logistics, opera- tions, outbound logistics, marketing and sales, and service, as well as the support activities of procurement, technol- ogy development, human resource management and firm infrastructure.

MBAD5613 Financial Accounting (Fa) This course covers the preparation and use of financial statements of publicly held corporations in the United States. Topics include the theory and rules used in financial statement preparation, a comparison of a United States rules to International Accounting Standards, the analysis of financial statements to provide inter-company and industry comparisons and information about the financial statements of non-profit and governmental organizations.

MBAD5773 China Business Law, Regulations, and Ethics (Irregular) Business law in China that is rel- evant to managers; Chinese regulations particularly relevant to consumer products and retail; business ethics in China. Prerequisite: MBAD 519V.

MBAD591V Capstone Project Definition (Irregu- lar) (1-3) Identification of business processes for capstone project. Prerequisite: MBAD 5313. Preparation of project framework, identification of key decisions, and proposal write up.

MBAD592V Capstone Project Plan (Irregular) (1-3) Second estimation of size of the project benefit, identification of how the current project assumptions identified, literature investigated, performance metrics, and Grant chart for project.

MBAD593V Capstone Project Management (Irregu- lar) (1-3) Project Management, Corequisite: MBAD 5313.

MBAD594V Capstone Project Final Deliverables (Irregular) (1-3) Write up of project, presentation of project, estimates of value, implementation plan, performance metrics, and change management plan.

MBAD595V Capstone Project (Irregular) (1-3) This course is designed for students to develop a capstone project, grounded in the core curriculum and the project component. The course is intended to help students develop a final project that addresses a real world problem that is relevant to their professional and organizational perspectives. The project must be approved by the Department Chair and the student's academic advisor. The project must be submitted to the Department Chair for final approval. Prerequisite: MBAD 5313.
MEEG2303 Introduction to Materials (Sp, Fa) A study of chemical, physical, and electrical properties of materials using an experimental approach. The materials of interest are: metals, polymers, ceramics, and composites. The interactive relationship between structure, properties, and processing of materials will be emphasized. For various engineering applications. Corequisite: Drill component. Prerequisite: MATH 2554, PHYS 2054 and CHEM 1103.

MEEG2403 Thermodynamics (Sp, Su) A study of the 1st and 2nd laws of thermodynamics. Availability of energy, heat, work, and if liquids, gases, and vapors; nonflow and flow processes. Recitation 3 hours, drill 2 hours per week. Corequisite: PHYS 2054 and MATH 2684.


MEEG3113 Machine Dynamics and Control (Sp, Su) The dynamic behavior of machine components are used to describe the machine’s vibrational motion and elementary control principles are introduced with the goal of describing how these motions might be reduced or eliminated. Corequisite: Drill component. Prerequisite: MEEG 2033 and MATH 3404.

MEEG3202L Mechanical Engineering Laboratory I (Sp, Fa) Introduction to measurement, uncertainty, data acquisition and analysis with an emphasis in materials and manufacturing. Corequisite: Drill component. Pre or Corequisite: MEEG 3013. Prerequisite: MEEG 2033 and PHYS 2074.

MEEG3212L Mechanical Engineering Laboratory II (Sp, Fa) Design and implementation of measurements, fabrication processes, data acquisition, and data analysis with an emphasis in mechanical-design elements and mechanical systems. Corequisite: Drill component. Prerequisite: ELEC 3903, MEEG 3202L, MEEG 3503 and MEEG 3113.

MEEG3503 Mechanics of Fluids (Sp, Fa) A study of fluids including properties, pressure forces, and field utilizing conservation of energy and momentum principles. Pre- or Corequisite: MATH 3404. Prerequisite: MEEG 2403.

MEEG4003 Intermediate Dynamics (Irregular) Review of basic principles of space flight, using reference frames, Coriolis acceleration. Kinematics of rigid bodies in 3-D space: eigenvalues and eigenvectors of inertia matrices, momentum and kinetic energy of a rigid body in 3-D motion, Euler’s equations of motion; precession, nutation, and spin of a gyroscope; forced steady precession, torque free steady precession, space conic, and body cone. Prerequisite: MEEG 2013.

MEEG4103 Machine Element Design (Sp, Su) Select design components commonly used in modern machines, principally for energy transmission. Students will be required to design a small system and present their design to the class. Prerequisite: MEEG 3013.

MEEG4123 Finite Element Methods I (Irregular) Introduction to the use of the finite element method in mechanical engineering design and analysis. Use of commercial software to solve thermal and mechanical problems. Pre- or Corequisite: MEEG 3013 and MEEG 4413.

MEEG4143 Control Design I (Sp, Fa) Students will select a design project, and each student group will prepare a formal written proposal on their project for presentation to a faculty panel. This group project will be carried to completion in the following year. Corequisite: MEEG 4143. Pre or Corequisite: ENGL 2003 and (MEEG 4103 or MEEG 4403). Prerequisite: Senior Standing.

MEEG4132 Professional Engineering Practices (Sp, Fa) Design proposal preparation, design codes, professional ethics, engineering economics, and the role of the engineer in society. Corequisite: MEEG 4131. Pre or Corequisite: ENGL 2003 and (MEEG 4103 or MEEG 4483). Prerequisite: Senior Standing.

MEEG4133 Creative Project Design (Sp, Fa) Student group must develop a proposal to a faculty panel and then carry out their project to completion. Each student group will make timely progress reports, verify the correctness of their completion project, and present their final report to their faculty panel. Prerequisite: MEEG 4131.

MEEG4202L Mechanical Engineering Laboratory III (Sp, Fa) Application of measurement techniques to mechanical engineering problems with an emphasis in thermal systems. Corequisite: Drill component. Prerequisite: MEEG 4202L or corequisite: MEEG 4483.

MEEG4213 Control of Mechanical Systems (Irregular) Mathematical modeling for feedback control of dynamic mechanical systems with design techniques using Laplace transforms, state variables, root locus, frequency analysis, and criteria for performance and stability. Prerequisite: MEEG 3113. (ELEC 4403)

MEEG4233 Microprocessors in Mechanical Engineering I: Electronic Mechatronics Systems (Irregular) Microcomputer architectural, programming, and interfacing. Smart product design (microprocessor-based control). Design of DC and AC power converters for micro-sensors. Applications to robotics and real-time control. Mobile robot project. Digital and analog electronics are reviewed where required. Prerequisite: ELEC 3913.

MEEG4371 Introduction to Materials Laboratory (Irregular) A study of properties, uses, testing, and heat treatment of basic engineering materials and related analytical techniques. Corequisite: Lab component. Prerequisite: MEEG 2003.

MEEG4413 Aerospace Propulsion (Irregular) Basic thermal energy transport processes; conduction, convection, and radiation; and the mathematical analysis of systems involving these processes in both steady and time-dependent cases. Prerequisite: MEEG 3503 and MEEG 2703.

MEEG4423 Power Generation (Irregular) Study of design and operational aspects of steam, gas, and combined cycle power plants. Brief study of Nuclear and Alternative energy systems. Prerequisite: MEEG 2403.

MEEG4433 Aerospace Propulsion (Irregular) Principles, operation, and characteristics of gas turbine and rocket engines. Brief study of novel spacecraft propulsion systems. Prerequisite: MEEG 3503.

MEEG4453 Industrial Waste and Energy Management (Irregular) Applications of thermodynamics, heat transfer, fluid mechanics, and electric machinery to the analysis of energy systems for the energy conscious design of industrial facilities. Current techniques and technologies for waste minimization and energy conservation including energy-consuming processes and systems, utility rate analysis, economic analysis and auditing are taught. Prerequisite: MEEG 4413.

MEEG4473 Indoor Environmental Control (Irregular) Gives student a thorough understanding of the fundamentals of indoor environments, including systems and equipment. Prerequisite: ENGL 2003 and (MEEG 4103 or MEEG 4483). Prerequisite: MEEG 3503. Independent research for mechanical engineering students. May be repeated for up to 6 hours of degree credit. Prerequisite: Consent of instructor.

MEEG4513 Thermal Systems Analysis and Design (Fa, Su) Analysis design and optimization of thermal systems and components with examples from such areas as power generation, refrigeration, and propulsion. Availability of energy systems and availability conservation methods. Prerequisite: MEEG 4413.

MEEG4493 Internal Combustion Engines (Irregular) Study of the design of internal combustion engines, including emissions and performance issues. Pre or Corequisite: MEEG 3503.

MEEG4503 Introduction to Flight (Fa) The course will provide understanding in basic aerodynamics, airfoil design and analysis and flight control surfaces. Prerequisite: MATH 3404, MEEG 3500.

MEEG4523 Aeronautics (Irregular) Study of space craft design and operations. Prerequisite: MEEG 2013 and MEEG 2403 or corequisite: MEEG 4483.


MEEG491V Special Projects (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

MEEG5303 Advanced Mechanics of Materials (Irregular) Combined stress, theory of thin walled cylinders, bending of unsymmetrical sections, torsion in noncircular section, plate stresses, and strain energy analysis. Prerequisite: MEEG 2013 and MEEG 3013.

MEEG5313 Structural Dynamics (Irregular) The forced and random vibration response of complex structural systems are studied through the use of the finite element method. Computational aspects of these problems are discussed and numerical and computer applications are undertaken. Prerequisite: MEEG 3113 and MEEG 4103 and graduate standing.

MEEG5113 Modal Analysis Methods (Irregular) Fundamental concepts of both analytical and experimental modal analysis methods are examined and applied to the study of complex structural systems. Computational aspects of these problems are discussed, and digital computer applications and computer programs are utilized to encourage responsible use and interpretation of FE analysis. Prerequisite: MEEG 4123 and graduate standing or consent.

MEEG5143 Advanced Machine Design (Su) Application of advanced topics such as probability theory, fracture mechanics, and computer methods to the design and analysis of complex mechanical systems. Prerequisite: MEEG 4103 and graduate standing.

MEEG5353 Bio-Mems (Sp) Topics include the fundamental principles of microfluidics, Navier-Stokes Equation, bio/abio interfacing technology, bio/abio hybrid integration of microfabrication technology, and various biomedical and biological problems that can be addressed with microfabrication technology and the engineering challenges associated with it. Lecture 3 hours per week. Prerequisite: MEEG 3503 or CVEG 2133 or ELEC 2133. (Same as BENG 5253)

MEEG5358 Introduction to Embedded Micro Electro Mechanical Systems (Fa) A study of mechanics and devices on the micro scale. Course topics will include: introduction to micro scales, fundamentals of microfabrication, surface and micro machining, device microfabrication, device reliability, examples of micro sensors and actuators. Recitation 3 hours per week.

MEEG5273 Electronic Packaging (Irregular) An introductory treatment of electronic packaging fundamentals. An introduction to micromachining to multipitch including materials, electrical design, thermal design, mechanical design, package modeling and simulation, processing considerations, reliability, and testing. Credit cannot be earned for both MEEG 5273 and EL ENG 5273.

MEEG5303 Physical Metallurgy (Fa) Physical and chemical properties of solids and the application of materials in commerce. Prerequisite: MEEG 2303.

MEEG5323 Physical and Chemical Vapor Deposition Processes (Irregular) Fundamental principles of materials behavior in the deposition of films by PVD/CVD. Topics include kinetic theory of gases, statistical mechanics, plasmas, diagnostics, reaction rate theory, nucleation and growth, crystal structures and defects in thin films, advanced characterization techniques for thin film and microstructures. Applications in microelectronics, tribology, corrosion, bio- and nano-materials. Prerequisite: Graduate standing in Engineering or consent of instructor.

MEEG5403 Advanced Thermodynamics (Sp) An in-depth review of classical thermodynamics, including availability analysis, combustion, and equilibrium, with an introduction to quantum mechanics and statistical thermodynamics. Prerequisite: Graduate standing in Engineering or consent of instructor.

MEEG5423 Statistical Thermodynamics (Irregular) Concepts and techniques for describing high tempera-
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...ture and chemically reactive gases from a molecular point of view. Introductory kinetic theory, chemical thermodynamics, and statistical mechanics applied. Prerequisite: MEEG 2403 and MATH 2574.

MEEG4533 Combustion (Even years, Fa) Introduction to combustion of solid, liquid, and gaseous fuels. Equilibrium and nonequilibrium, premixed and non-premixed combustion processes, ignition, quenching, stability, emissions and diagnostics. Prerequisites: Graduate standing in Engineering or consent of instructor.

MEEG4543 Advanced Heat Transfer (Fa) More in-depth study of topics covered in MEEG 4413, Heat Transfer, and coverage of some additional topics. Prerequisite: MEEG 4413 or equivalent.

MEEG4733 Radiation Heat Transfer (Even years, Su) Spectral analysis, radiant exchange in gray and non-gray enclosures, gas radiation, and multi-mode heat transfer. Prerequisite: MEEG 4543 or equivalent.

MEEG5503 Advanced Fluid Dynamics I (Sp) A basic survey of the characteristics of fluid flow under a variety of conditions with examples. Begins with a derivation of the Navier-Stokes equations and an evaluation of the dimensionless groups from these equations. Topics to be covered include viscous laminar and turbulent boundary layers, jets and wakes, Stokes flow, inviscid flows with and without free surfaces and turbulence. Prerequisite: MEEG 3033 and MATH 3404.

MEEG5733 Advanced Numerical Methods (Sp) Numerical methods for the solution of linear and non-linear ordinary and partial differential equations; initial and boundary value problems; one-step and multi-step methods; predominately finite difference but also finite element and control volume techniques; and computer applications. Graduate standing required. Prerequisites: MEEG 4543 and instructor consent. MEEG 590V Research (Sp, Su, Fa) (1-6) Fundament or applied research. Prerequisite: Graduate standing.

MEEG591V Special Problems (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

MEEG600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

MEEG603V Doctoral Elective Micro Electro Mechanical Systems (Irregular) An advanced study of microscale mechanics and devices. The course material will include in depth discussion of 3 to 4 current MEMS technology areas such as microfluidics, optical MEMS, and inertial sensors. Students will also be required to fabricate and test one functional MEMS device in a processing laboratory. Prerequisite: MEEG 5203.

MEEG6313 Advanced Electronic Packaging (Irregular) An advanced treatment of electronic packaging concentrating on multichip modules. Topics covered include electrical design, thermal design, mechanical design, package design, and computer-aided packaging design. Prerequisites: MEEG 5203 and EEEG 5473.

MEEG650V Doctoral Dissertation (Sp, Su, Fa) A periodic seminar devoted to mechanical engineering research topics. Appropriate grade to be "S." MEEG700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Microelectronics-Photonics (MEPH)

MEPH488V MicroEP REU Research (Su) (1-3) Special research topics associated with the Microelectronics-Photonics Graduate Program’s REU (Research Experience for Undergraduates) summer program. Enrollment is limited to microEP REU participants, or by special permission of the microEP Director to UA undergraduates engaged in summer research with microEP faculty members.

MEPH5233 Research Commercialization and Product Development (Sp) This survey course examines research commercialization through analysis of IP, technology space, market space, manufacturability, financials, and business control. Entrepreneurial behaviors and growth development within large companies are also discussed. A case study using a current UA faculty member’s research commercialization effort will be developed. Prerequisite: Graduate standing.

MEPH5613 Introduction to Advanced Computation for Scientists and Engineers (Su) Introduction to computer modeling in science and engineering and their advantages. Review of programming needed for modeling applications. Introduction to finite difference and finite element procedures to solving problems. Importance of visualization and grid generation. Prerequisites: senior standing or graduate student in science or engineering.

MEPH5713 Advanced Nanomaterials Chemistry (Irregular) An interdisciplinary study of nanoscience and nanotechnology. Students are using more nanomaterials, and modern industry demands that its scientists and engineers have materials chemistry knowledge. Materials from the micro to nanoscale will be examined in this course from the perspective of fundamental chemistry principles to build a picture of tomorrow’s materials. May be repeated for up to 3 hours of degree credit.

MEPH5723 Physics at the Nanoscale (Irregular) This course introduces the student to the legal responsibilities and ramifications of ownership and development of intellectual property. Creative thinking and the ability to recognize and assess potential intellectual property at the earliest stages of a project is essential. This course will examine the content of different sections of successful proposals; and methods to secure federal and other support for research. Prerequisite: Graduate standing.

MEPH5811 Operations Seminar (Sp, Su, Fa) Weekly seminars in Microelectronics-Photonics candidate for the Master of Science degree to discuss issues that impact a technical group’s operational effectiveness. Topics to be discussed include ethics, applications of procedures, effect of procedures on the technology and human affairs will be included as appropriate. Prerequisite: Graduate standing.

MEPH5831 Proposal Writing and Management (Su) Advanced scientific and engineering research and development typically requires significant resources to be successful. This course introduces the student to the factors that impact proposal success in both the academic and industrial arenas. Assignments will include writing proposals to various funding agencies and student to instructor past professional experiences. Prerequisite: graduate standing.

MEPH5841 Research Commercialization and Product Development Lab (Irregular) This laboratory is designed for students who wish to gain experience in strategic business start up and/or product development planning activities, and critical issues for business success. Instructor past professional experiences. Prerequisite: graduate standing.

MEPH587V Special Topics in Microelectronics-Photonics (Irregular) (1-4) Consideration of current microelectronics-photonic topics not covered in other courses. One section will be offered each year. Topics only after a syllabus is submitted to the microEP office by the faculty member teaching the course. May be repeated for up to 9 hours of degree credit.

MEPH588V Special Problems in Microelectronics-Photonics (Irregular) (1-3) Opportunity for individual study of advanced subjects related to a graduate degree in Microelectronics-Photonics to suit individual requirements. One section will be created for each student only after a syllabus is submitted to the microEP office by the supervising faculty member. May be repeated for up to 6 hours of degree credit.

MEPH611 Operations Seminar (Sp, Su, Fa) Weekly seminar of Microelectronics-Photonics candidates for Doctor of Philosophy degree to discuss issues that impact a technical group’s operational effectiveness. Topics to be discussed include ethics, applications of procedures, cultural impact on operations, and team based methodologies. Discussions of current events in the interaction between technology and human affairs will be included as appropriate. Prerequisite: Graduate standing.

MEST2003 Islam in History, Practice and Experience (Sp, Su, Fa) This course introduces Islam as a global religion and world civilization, including study of the Qur’an, prophet Muhammad, and cultural impact on operations, and team based methodologies. Discussions of current events in the interaction between technology and human affairs will be included as appropriate.

Qu’ran, prophet Muhammad, and cultural impact on operations, and team based methodologies. Discussions of current events in the interaction between technology and human affairs will be included as appropriate.

MEST2013 Gateways to the Middle East (Sp, Su, Fa) This course is designed to provide students with fundamental building blocks for understanding the contemporary Middle Eastern/Islamic World. Students will be introduced to a variety of disciplinary approaches to the study of the geocultural region, including history, politics, arts and literature, religions and cultures, social geography, and economics.

MEST399V MEST: Honors Thesis (Irregular) (1-3) Middle East Studies Honors research, readings and thesis. Prerequisite: Junior standing.

MEST4003 Middle East Studies Colloquium (Sp, Su, Fa) An interdisciplinary colloquium with an annual change in subject required of all students in the Middle East studies program. Prerequisite: Sophomore standing. May be repeated for up to 6 hours of degree credit.

MEST599V Special Topics in Middle East, North Africa & Mediterranean Studies (Irregular) (1-3) Various Topics in Middle East Studies: classes in lecture and seminar formats will focus on the Middle East, North Africa and Mediterranean will specialization in anthropology, art and architecture, regional culture and geography, history, political sciences, and regional language and literature. Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

Management (MGMT)

MGMT3563 Management Concepts and Organizational Behavior (Sp, Su, Fa) Introduces students to fundamental concepts of management practice with particular emphasis on integrating the social and ethical dimensions of business activities. Addresses the planning, organizing, directing, and controlling functions performed by managers as these functions relate to managing human resources. Provides survey of critical management concepts; establishes student’s ability to apply analytical and problem solving skills through case studies and experimental exercises.

MGMT3933 Entrepreneurship and New Venture Development (Sp) The role of entrepreneurship and new venture development in starting up new businesses. Identification of new venture opportunities and the evaluation of their feasibility.

MGMT4003H Honors Management Colloquium (Irregular) Explores events and developments in management and development of the field of Management. Prerequisite: Senior standing.

MGMT4103 Special Topics in Management (Irregular) Explores trends, concepts, and important developments in management as they impact on organizational performance. Topics are selected by the Management Department faculty for each semester the course is offered. MGMT4243 Ethics and Corporate Responsibility (Sp, Fa) A comprehensive and critical examination of traditional and current ethical theories and approaches that guide business decision-making, ethical issues that affect decision-making, and ethical issues related to the various business disciplines.

MGMT4253 Leadership (Sp, Fa) This course offers a foundation for understanding and evaluating organizational leadership. It is designed to assist students in developing frameworks for understanding and enacting leadership. This course examines topics such as the nature and foundation of the leader-follower relationship, models that explain effective leadership, and the interface of leadership with gender, ethics, and culture. Prerequisite: WCOB 2033 or MGMT 3563.

MGMT4263 Organizational Change and Development (Sp, Fa) This course will develop diagnostic and intervention skills that can be applied to identifying and overcoming problems of morale and productivity in organizations. A variety of behavioral methods will be covered. Prerequisite: WCOB 2033 or MGMT 3563.

MGMT4433 Small Business Entrepreneurship Management (Sp) Small enterprise opportunities and problems emphasizing innovation, management planning and control, financing, marketing, and legal requirements. Emphasis on application of management knowledge to small enterprise management. Prerequisite: MGMT 3933.

MGMT450V Independent Study (Irregular) (1-3) Permits students on an individual basis to explore selected topics in management. May be repeated for up to 3 hours of degree credit.

MGMT4583 International Management (Sp) Develops an understanding of international business manage-
current topics, schools of thought, and future directions are examined. Prerequisite: Admission to a Ph.D. program.

MGMT6213 Seminar in Research Methods (Irregular) Familiarizes students with the principles and techniques underlying research in management and organization. Issues of basic philosophy of science and research methodologies are covered, including practical problems of research design, measurement, data collection, sampling, and interpretation in conducting research in management and in organizations. Prerequisite: Admission to a Ph.D. program.

MGMT6223 Seminar in Management Topics (Irregular) Seminar in special research topics in management. Topics vary depending upon instructor. Prerequisite: Admission to a Ph.D. program. May be repeated for up to 3 hours of degree credit.

MGMT6233 Seminar in Human Resource Management (Irregular) Provides an overview of major issues in human resource management. Designed to familiarize students with the seminal research in human resource management, and to provide them with the conceptual and methodological tools necessary to do research in the area. Prerequisite: Admission to a Ph.D. program.

MGMT636V Special Problems in Management (Sp, Fa) (1-6) Individual reading and research. May be repeated for up to 6 hours of degree credit.

MGMT7000 Thesis or Dissertation (Sp, Fa) (1-18) Prerequisite: Candidacy.

Army ROTC (MILS)

MILS1001 Basic Outdoor Skills and Leadership Introduction (Fa) Incorporates various outdoor field craft skills into the classroom and outdoor instruction. Subjects include small group leadership, rappelling, basic map reading, water safety and first aid. Introduction to safe use of a rifle and basic marksmanship. Introduction to organization, values, and role of the Army. Classroom 1 hour per week. Lab 1 hour per week.

MILS1011 Rappelling, Outdoor Field Craft and Leadership Development (Sp) Incorporates various outdoor fieldcraft and rappelling instruction. Subjects include basic rappelling/mountaineering, intermediate map reading/orienteering, first aid and outdoor cold/hot weather survival skills. Introduction to small group leadership principles. Classroom 1 hour per week. Lab 1 hour per week.

MILS1011 Basic Marksmanship (Fa) Introduction to the safe use of a rifle and practical application of rifle marksmanship. Completion of in-class instruction and outdoor field craft. Includes visit to a local indoor rifle range. Materials and equipment furnished by Department of Military Science.

MILS1211 Basic Outdoor Field Craft and Skills (Sp, Fa) Introduction to basic military survival skills and outdoor field craft. Subjects include cold/hot weather survival, water procurement methods, plant identification, expeditionary food preparation, and basic first aid. Materials and equipment furnished by Department of Military Science.

MILS2002 Leadership Development I (Fa) Continuation of basic skills presented in MILS 1001 and MILS 1011. Course focuses on small unit leadership, team building and management skills. Includes an introduction to small unit tactics. Students develop leadership foundations by leading discussions, developing and briefing operation plans using the military decision making model. Classroom 2 hours per week. Lab 1 hour per week. Corequisite: MILS 1001 and MILS 1011 or approval of Professor of Military Science.

MILS2012 Leadership Development II (Sp) Continuation of leadership skills presented in MILS 2002. Course focus is on decision making process, time management, and leadership skills. Includes an introduction to military writing and basic tactics. Cadets continue training in land navigation, first aid, and outdoor field craft. Classroom 2 hours per week. Lab 1 hour per week. Corequisite: Lab component. Prerequisite: MILS 1001 and MILS 1011 or approval of Professor of Military Science.

MILS2011 Advanced Rifle Marksmanship (Sp) Course to teach students the fundamentals of Advanced Rifle Marksmanship. Open to all MILS cadets 1-3 days per week with topics including: Air Rifle, small bore firing, advanced practical exercises of different shooting positions and marksmanship competition with other universities. Prerequisite: MILS 1101.

MILS3004 Applied Leadership I (Fa) Development of managerial and leadership abilities, maximizing performance-oriented ‘hands-on’ training. Students learn advanced infantry tactics and demonstrate their leadership potential using this medium. Students are required to lead in drill and ceremony, physical training, and tactical infantry situations. Leadership training is intended to prepare the students for the ROTC Advanced Camp experienced normally in the summer prior to the senior year or 4th year of ROTC. Lecture 3 hours, laboratory 3 hours per week, plus 3 hours of physical training are conducted weekly. One weekend per semester is required per semester. Corequisite: Lab component. Prerequisite: Junior standing plus one of the following conditions: completion of ROTC basic camp, veteran status, or completion of basic training with any component of the U.S. Armed Forces.

MILS3014 Applied Leadership II (Sp) Development of managerial and leadership abilities, maximizing performance-oriented ‘hands-on’ training. Students learn advanced infantry tactics and demonstrate their leadership potential using this medium. Students are required to lead in drill and ceremony, physical training, and tactical infantry situations. The training is intended to prepare the students for the ROTC Advanced Camp experienced normally in the summer prior to the senior year or 4th year of ROTC. Lecture 3 hours, laboratory 3 hours per week, plus 3 hours of physical training are conducted weekly. One weekend per semester is required per semester. Corequisite: Lab component. Prerequisite: Junior standing plus one of the following conditions: completion of ROTC basic camp, veteran status, or completion of basic training with any component of the U.S. Armed Forces.

MILS4001 Contemporary Military Issues (Sp, Fa) Individual study for advanced undergraduates. Students will research, write a paper, and give a presentation on a current military issue. Prerequisite: PMS approval.

MILS4004 Advanced Leadership I (Fa) The study of various military organizations and their role in military operations. Discussion of command and staff management in military organizations, executive responsibility of Army commissioned officers, service customs, courtesies, and traditions. The senior year includes the study of personnel management, professional ethics, and the Army’s training and maintenance management system. Lecture 3 hours, laboratory 3 hours, physical training 3 hours per week. MS IV cadre plan and participate in 1 field training exercise per semester. Corequisite: Lab component. Prerequisite: Successful completion of MS III course work (MILS 3004 and MILS 3014).

MILS4011 Advanced Military Correspondence (Sp, Fa) Practice for advanced undergraduates. Students submit prepared military correspondence projects written in the military style using military forms and formats. Prerequisite: PMS approval.

MILS4004 Advanced Leadership II (Sp) The study of various military organizations and their role in military operations. Discussion of command and staff management in military organizations, executive responsibility of Army commissioned officers, service customs, courtesies and traditions. The senior year includes the study of personnel management, professional ethics, the military justice system, and the Army’s training and maintenance management system. Lecture 3 hours, laboratory 3 hours, physical training 3 hours per week. MS IV cadre plan and participate in 1 field training exercise per semester. Corequisite: Lab component. Prerequisite: Successful completion of MS III course work.
MKTG3633 Marketing Research (Sp) Research designs, techniques, and analyses of primary and secondary data for designing and evaluating marketing strategies and segmentation analyses; (2) strategy implementation determining product development, pricing, distribution, and promotion decisions; and (3) monitoring customer attitudes, motivations, and satisfaction. Prerequisite: MKTG 3433 and WCOB 1033.

MKTG4103 Marketing Topics (Irregular) Special topics in marketing not available in other courses. Topics are selected by the Marketing faculty for each semester. Each course is offered. Prerequisite: MKTG 3433. May be repeated for up to 6 hours of degree credit.

MKTG4233 Integrated Marketing Communications (Su) Focuses on the knowledge and application relevant to the coordination of marketing communications including advertising, personal selling, sales promotion, public relations, and publicity. Prerequisite: MKTG 3433. MKTG4533 Selling and Sales Management (Sp, Fa) Examines how organizations and individuals communicate value and obtain desired results through the process of personal selling and customer relationship management, along with the role of sales management in the development of people and resource utilization within the firm. Prerequisite: MKTG 3433.

MKTG4443 Retail Strategy (Sp) Concentrates on planning and executing strategies to sustain and satisfy the retailing concept. Attention is devoted to retail format, competition among retail institutions, determination of store location, merchandising lines, atmospherics, and levels of customer service provided in the sale of consumer products. Prerequisite: MKTG 3433.

MKTG4444 Retail Buying and Merchandising (Sp, Fa) Examination of supplier and buyer responsibilities and decision-making functions in the retail environment and the sale of consumer goods. Prerequisite: MKTG 3433.

MKTG4703H Honors Marketing and Transporta- tion Colloquium (Irregular) Explores events, concepts, and new developments in the field of marketing and/or Transportation. Prerequisite: Senior standing.

MKTG4853 Marketing Management (Sp) Strategic planning and management of the marketing function within the firm and through the entire marketing system. Focus is on the development and management of marketing strategies and tactics related to product, pricing, promotion, and distribution decisions. Prerequisite: MKTG 3633 and MKTG 3553.

MKTG5433 Global Marketing (Sp, Fa) Introduction to marketing concepts and practices as applied to the retail consumer environment. Focuses on the strategic development, positioning, and management of products, promotions, and pricing decisions and store environments in building customer relationships from retailer and supplier perspectives. (Core)

MKTG5333 Retailing Strategy and Processes (Su) Application of retailing research and operation of retailing organizations. Investigation of the various types of retailing with emphasis on both the strategic and functional aspects in retail processes.

MKTG5433 Consumer and Market Research (Sp) Modern marketing research methods and analyses applied to consumers, shoppers, and buyers of goods and services sold in competitive retail environments. Attention is given to both quantitative and qualitative methods, analyses, interpretation, and decision making. Prerequisite: MKTG 5103.

MKTG5533 Strategic Category Management (Su) Strategic planning and management of brands and product categories from both manufacturer and retailer perspectives. Focus is on the product brand development, pricing, distribution, and promotion of brands and their strategic and functional roles in the product mix.

MKTG5633 Data Analysis and Management (Irregular) Analysis and management of brands and product categories from supplier and retailing strategic perspectives. Focus is on brand and category strategic and functional roles in the retail environment and the role of the retailer in these development, pricing, distribution, promotion, and in-store placement.

MKTG5553 Shopper, Buyer, and Consumer Behavior (Fa) Behavioral and social science concepts applied to retail shoppers, buyers, and consumers of products and services. Attention is given to research on the cognitive, affective, and behavioral aspects involved in the acquisition, consumption, and disposal of products and services by individuals and households. Prerequisite: MKTG 5103.

MKTG636V Special Problems in Marketing (Irregular) (1-2) Problems related to the development of strategic marketing thought and contemporary schools of thought. May be repeated for up to 6 hours of degree credit.

MKTG6413 Special Topics in Marketing (Irregular) Seminar in special topics in marketing. Topics vary depending upon the instructor. May be repeated for up to 3 hours of degree credit.

MKTG6433 Seminar in Research Methods (Irregular) Extensive review of literature illustrative of marketing research methodology. Focuses upon theoretical foundations of research design, methodology, and analysis as well as interpretation of univariate, bivariate, and multivariate data in marketing theory exploration. May be repeated for up to 3 hours of degree credit.

MKTG6443 Seminar in Marketing Theory (Irregular) Comprehensive survey and critical review of the history of marketing thought and contemporary schools of thought in marketing discipline. In-depth research, review, synthesis, and a research proposal will be required in a selected topic from the perspectives of advancing marketing theory. Prerequisites: MKTT 5103 and MKTT 5303.

MKTG6453 Transportation and Business Logistics (Irregular) Underlying theories and problems related to the development of logistical systems in the U.S. Attention focused on transport economics, the role of government in providing transportation infrastructures and systems, and the design and management of systems related to integrating transportation, inventory control, warehousing, customer service levels, and facilities location. Prerequisite: MKTG 5103.

Applied Music (Class) (MUAC)

MUAC1121 Italian for Singers (Fa) Training in proper pronunciation and inflections of Italian as applied to singers. Two meetings weekly.

MUAC1141 German for Singers (Even years, Sp) Training in proper pronunciation and inflection of German as applied to singing. Two meetings per week.

MUAC1151 French for Singers (Odd years, Sp) Training in proper pronunciation and inflections of French as applied to singing. Two meetings per week.

MUAC1161 Class Instruction in Piano for Non-Majors (Fa) Beginning instruction in piano. Does not fulfill the class piano requirement for music majors. MUAC1221 Piano Class for Music Majors I (Fa) Training in functional piano skills for music majors. MUAC1222 Piano Class for Music Majors II (Sp) A continuation of MUAC 1221. Two meetings per week.

MUAC1223 Piano Class for Music Major IV (Sp) A continuation of MUAC 2221. Two meetings per week.

Applied Music Private Inst (MUAP)


MUAP4201 Applied Recital II (Sp, Su, Fa) Preparation and performance of a public recital of a minimum of 50 minutes of music. Prerequisite: MUAP 3201.

MUAP4301 Composition Recital (Sp, Su, Fa) Preparation and performance of a public recital of a minimum of 50 minutes consisting of original musical compositions. May be repeated.

MUAP5001 Applied Voice/Instrument-Secondary Level (Sp, Su, Fa) Private study at the graduate secondary level. MUAP510V Applied Voice/Instrument (Sp, Su, Fa) (1-5) Private study at the graduate level. Prerequisite: MUAP 310 or equivalent.

MUAP5201 Graduate Recital I (Sp, Su, Fa) Preparation and performance of a public recital of a minimum of 50 minutes of music. MUAP5211 Graduate Recital II (Sp, Su, Fa) Preparation and performance of a public recital of a minimum of 50 minutes of music.

Music Education (MUED)

MUED2012 Introduction to Music Education (Sp, Fa) A course designed to provide early experiences for the music education student. Students will become familiar with professional trends, music classroom organizational and management issues, and principles of effective education. Emphasis will include basic psychological and philosophical concepts.
orientation, as well as observations in public school class-
rooms. Required of all prospective Music Education majors.
MUED4031 Seminar for Professional Entry into Teaching
Music Ensembles (Sp, Su) A seminar offered during
the student teaching semester to prepare the student for the role
of a professional music teacher. The seminar includes principles
of ethics and conduct, classroom management, evaluation and
gradation, and application for employment.
MUED4112 Pedagogy in Music Education (Fa)
A course for developing broad music teaching concepts and
specific teaching behaviors. Students will experience the
pedagogical teaching situation through the construct of effec-
tive communication practice. Emphasis will be on providing
a laboratory environment representative of public school class-
rooms. Required of all Music Education majors. Prerequisites:
MUEB 3202, MUEB 3201, MUEB 3833
MUEB4273 Methods for Teaching String Instruments
(Odd years, Fa) Methods and materials for teaching string
instruments to elementary classroom and will participate in other
activities involving the school and community. Enrollment
requirement is a total of 12 hours and 15 weeks involvement in
452V and 451V. Corequisite: MUEB 451. Prerequisite: Bachelor of
Music degree in Music Education.
MUEB4283 Teaching Vocal Music (Even years, Sp, Su)
Methods and materials used in teaching high school music.
MUEB4293 Instrumental Methods (Fa) Problems of
teaching instrumental music in the public schools.
MUEB5431 Seminar: Elementary Music (Sp, Su, Fa)
(4-8) A minimum of five weeks and a maximum of ten weeks will be spent in an off-campus
school, where the student will teach under supervision in the
elementary classroom and will participate in other activities
involving the school and community. Enrollment requirement is
for a total of 12 hours and 15 weeks involvement in
452V and 451V. Corequisite: MUEB 451. Prerequisite: Bachelor of
Music degree in Music Education.
MUEB452V Student Teaching: Secondary Music (Sp, Su, Fa)
(4-8) A minimum of five weeks and a maximum of ten weeks will be spent in an off-campus
school, where the student will teach under supervision in the
elementary classroom and will participate in other activities
involving the school and community. Enrollment requirement is
for a total of 12 hours and 15 weeks involvement in
452V and 451V. Corequisite: MUEB 451. Prerequisite: Bachelor of
Music degree in Music Education.
MUEB477V Special Topics in Music Education (Irregular)
(1-4) Subject matter not covered in other
sources. With permission, may be repeated for credit if topics are
different.
MUEE5513 Seminar: Resources in Music Education
(Sp, Su, Fa) Study of the analytical and writing skills
necessary for academic research in music education. Each
student identifies one problem specific to music education,
finds and reviews related literature and sources, develops
a comprehensive bibliography, and writes a paper which
synthesizes the research. Open to graduate students and
undergraduates in honors in music education.
MUEE5653 Seminar: Issues in Music Education
(Irregular) A seminar exploring the relationships between
the professions of music and selected views about learning theories, teaching methods, philosophy, psychology,
and other selected topics relevant to contemporary music education.
MUEE5653 Music Education in the Elementary School
(Sp, Su, Fa) Concepts of elementary music
education; methods, materials, curriculum design, and super-
vision in elementary school music.
MUEE5811 Curriculum Design in Music (Sp, Su, Fa)
Goals and objectives in music education. Student will
develop a curriculum for an actual or hypothetical music
education program.
MUEE583V Workshop: Music in the Elementary
School (Irregular) (1-18) An in-service training work-
shop for elementary music educators.
MUEE5852 Marching Band Techniques (Su) In-
cludes the place of the marching band in the school program,
types of formations used, and selecting, arranging or writing the
musical score. MUAC 1321 and MUAC 1323 and any
four of those listed for "band" or "string" concentration. Required for music students.
MUEE5973 Tests and Measurement in Music (Fa)
This course will address the psychometric concepts of tests and
measurement of music achievement, attitude, and
self-assessment (self-efficacy) within the teaching and
assessment of musical skills, musical responses, and
will critically examine existing aptitude tests (Seashore,
Watkins Farnum, Gordon, etc). Basic statistical concepts
and data analysis used in common testing scenarios will be
introduced. Prerequisites: gradate standing in music.
MUEE5983 Psychology of Music Behavior (Even
years, Sp) This course is an introduction to the psychology
of music, and will adopt an interdisciplinary view toward the
field, covering such topics as philosophical and sociologi-
cal questions about the nature and function of music, the
physiology of the ear, the physical and perceptual properties of sound, professional aspects of performance and
taste research, social and pedagogical attributes of perfor-
mance, and behavioral musical responses. Prerequisites:
Graduate standing.
MUEE599V Seminar (Su) (1-6) May be repeated for
up to 6 hours of degree credit.
MUEE600V Master's Thesis (Irregular) (1-6)
Preparation of a master's thesis as partial fulfillment of the
requirement for the master's degree. MUAC 5561.
MUEE605V Independent Study (Sp, Su, Fa) (1-6)
Provides students with an opportunity to pursue special study
of problems in music education.
Course Descriptions

Music Pedagogy (MUPD)

MUDP3801 Conducting I (Fa) A study of the elementary techniques of conducting instrumental and choral groups. Prerequisite: MUP 2003.

MUDP3811 Conducting II: Instrumental Music (Sp) Continuation of study of the technique of conducting instrumental music groups. Prerequisite: MUPD 3801.

MUDP3831 Conducting II: Vocal Music (Sp) Continuation of study of conducting with emphasis on techniques of choral conducting. Prerequisite: MUPD 3801.

MUDP3871 Reed-Making (Fa) The making of reeds for oboe, bassoon, or clarinet, including the processing of cane from tubes. May be repeated for up to 2 hours of degree credit.

MUDP477V Special Topics in Pedagogy (Irregular) (1-6) Subject matter not covered in other courses. Prerequisite: MUPD 481V Conducting (Sp, Su, Fa) (1-4) Private lessons of 1/2 hour and 1 hour conducting laboratory each week. Development of skills in conducting symphony, opera, oratorio, ballet, and band repertoire. May be repeated for up to 18 hours of degree credit.

MUDP4836 Piano Pedagogy (Irregular) Analytical study and discussion of the various approaches to piano pedagogy and its application in individual/class instruction. Involves demonstrating skills with actual teaching of beginning, intermediate and upper level students.

Musicology (MUSY)

MUSY4313H Honors Special Topics in Asian and Middle Eastern Musics (Irregular) Research seminars on selected topics in Asian and Middle Eastern Musics. Prerequisite: MUSY 5113 and permission. May be repeated for up to 6 hours of degree credit.

MUSY490V Honors Essay (Irregular) (1-6) An honors research paper in Music History or literature, Ethnomusicology, Music Theory, or Music Education. Open to seniors in honors.

Musicology (MUSY)

MUSY4313H Honors Special Topics in Asian and Middle Eastern Musics (Irregular) Research seminars on selected topics in Asian and Middle Eastern Musics. Prerequisite: MUSY 5113 and permission. May be repeated for up to 6 hours of degree credit.

MUSY490V Honors Essay (Irregular) (1-6) An honors research paper in Music History or literature, Ethnomusicology, Music Theory, or Music Education. Open to seniors in honors.

Musicology (MUSY)
MUSY5363 Proseminar: Music Cognition (Irregular)
An exploration of recent literature concerning the mental mechanisms by which the human mind perceives, understands, produces, and enjoys music.

MUSY5353 Ethnomusicalogy Seminar Fieldwork (Irregular)
A minimum of 6 weeks summer fieldwork related to the topic of the student's thesis, resulting in an extended research report and the submission of collected material, to be deposited in the University Library.
Prerequisite: MUSY 5313.

MUSY5391 Ethnomusicalogy Performance Studies (Irregular)
Applied vocal or instrumental studies relating to the performance activities of the International Center for Research in Early Asian and Middle Eastern Musics. (Private study, as available) May be repeated for up to 2 hours of degree credit.

MUSY5413 Proseminar: Cross-cultural Perfor-
mance Practices (Irregular)
A survey of performance practices from historic western art music through modern non-Western music. Course with readings from nineteenth- and twentieth-century performance practices as well as a study of written and aural traditions of non-western music.

MUSY5423 Seminar: History of Jazz (Fa)
A study of the musical and cultural cross fertilization which produced this influential twentieth-century art form, as well as a general examination of its major practitioners.

MUTH1603 Ethnomusicalogy Thesis (Sp, Su, Fa) (1-6)
Thesis requirement for the Master of Arts in Ethnomusicalogy program. May be repeated for up to 6 hours of degree credit.

MUTH1631 Internship in Asian and Middle Eastern Music (Irregular) Internship in Asian and Middle Eastern Music Preservation in the Asian and Mid-Eastern International Music Preservation Collection, Music Division of the Library of Congress. Prerequisite: MUTH 5973 and (MUSY 5123 or MUSY 5353).

MUSY5333 Advanced studies in Ethnomusicalogy (Irregular)
Advanced level studies, individually tailored and supervised, including Ethnomusicalogy (prerequisite MUSY 5113 or MUSY 5123); The Music or Dance of a Selected Area (prerequisite at least one of MUSY 5313, MUSY 5323, MUSY 5423, MUSY 5223, MUSY 5343, or MUSY 5342); Harmonic Performance Practices (prerequisite MUSY 5413); Historical East Asian Musicology (prerequisite MUSY 5313 or MUSY 5323); and Historical Central Asian and Middle- and Near-Eastern Musicology (prerequisite MUSY 5313 or MUSY 5323).


Music Theory (MUTH)

MUTH1003 Basic Musicianship (Su) Introductory-level studies in music theory and aural perception for students not prepared for MUTH 1603 or MUTH 1621. Meets 4 days per week.

MUTH1603 Music Theory I (Sp) A study of diatonic harmonic practice. Includes part-writing and analysis. Prerequisite: MUTH 1003 or permission of instructor.

MUTH1621 Aural Perception I (Sp) Development of aural perception through ear training, sight singing, and keyboard harmony. Meets 2 hours per week.

MUTH1631 Aural Perception II (Sp) Continued development of aural perception through ear training, sight singing, and keyboard harmony. Meets 2 hours per week.

MUTH2621 Aural Perception III (Sp) A continuation of MUTH 1631. Two hours per week, one hour credit. Prerequisite: MUTH 1621.

MUTH2631 Aural Perception IV (Fa) A continuation of MUTH 2621. Two hours per week, one hour credit. Prerequisite: MUTH 2621.

MUTH3603 Music Theory III (Sp) A study of 18th century counterpoint and analysis of inventions, canons, fugues, etc. Three hours per week. Prerequisite: MUTH 2603.

MUTH3613 Music Theory IV (Fa) A study of the harmonic and melodic trends of the 20th century. Three hours per week. Prerequisite: MUTH 2603.

MUTH364V Composition II (Sp, Su, Fa) (1-4) Private lessons of one-half hour, and one hour of composition laboratory session each week. Development of skills in creative musical expression specifically for composition-theory majors - others admitted by consent. May be repeated. Prerequisite: MUTH 164V.

MUTH4322 Score Reading (Irregular) A conductor's approach to the technique of score reading and analysis of orchestra, band, and choral scores for the purpose of preparing composition for rehearsal and performance.

MUTH4612 Orchestration (Fa) A continuation of study of the capabilities of the various orchestral and band instruments and their use in arrangement for ensembles, band, and orchestra. Scoring for orchestra. Prerequisite: MUTH 3613.

MUTH462V Music Theory Review (Su, Fa) (1-3) A continuation and advanced exposure of undergraduate music theory. (May not count for credit toward the Master of Music degree.)

MUTH4703 Form and Analysis (Sp) Beginning with phrase and period structure, a complete evaluation of musical form through larger forms such as sonata, rondo, and theme and variation; with emphasis on characteristics of the classic and romantic schools, and analyses of select sonata move-
ents. Prerequisite: MUTH 3613. May be repeated for up to 3 hours of degree credit.

MUTH477V Special Topics in Music Theory (Ir-
regular) (1-4) Subject matter not covered in other courses. May be repeated for up to 4 hours of degree credit.

MUTH4923H Honors Colloquium in Music Theory (Irregular) Covers a special topic or issue, offered as part of the honors program.

MUTH498V Senior Thesis (Sp, Su, Fa) (1-18) MUTH5343 Analytical Techniques (Irregular) An intensive study of selected works from music literature. Schenkerian analysis, rhythmic analysis, and set theory analytic techniques will be studied and employed in addition to traditional harmonic and formal analysis. Prerequisite: MUTH 3613 or equivalent.

MUTH5423 Pedagogy of Theory (Irregular) De-
tailed study of methods of teaching undergraduates courses in music theory and aural perception. Prerequisite: Gradate standing.

MUTH5631 Music Theory Teaching Practicum (Ir-
regular) Supervised teaching of an undergraduate course in music theory or aural perception, including lesson plan and examination preparation and in-class observation.

MUTH5643 Analysis of 20th Century Music (Irregular) Study of 20th century music and analytical techniques including pitch class set theory and serial techniques. Prerequisite: Graduate standing.

MUTH5662 Instrumental Arranging (Su) A practical course in arranging for the various small ensembles including keyboard. Review of instrumental ranges and capabilities. Study of current trends in instrumental ranges and arranging. MUTH5672 Advanced Orchestration (Irregular) A study of advanced principles of orchestral writing through indi-
vidual projects in scoring and analysis. Prerequisite: MUTH 4612 or equivalent.

MUTH568V Composition (Sp, Su, Fa) (1-4) Private lessons of one-half hour, and one hour of composition labora-
tory session each week. Development of skills in creative musical expression specifically for composition-theory majors - others admitted by consent. May be repeated. Prerequisite: Graduate standing.

MUTH599V Independent Study in Music Theory (1-6) Provides students with an opportunity to pursue spe-
cial study of topics in music theory. May be repeated for up to 12 hours of degree credit.

MUTH600V Master's Thesis (Sp, Su, Fa) (1-6) A study of recent literature concerning the mental func-
tions of music thinking and the body's adaptive and compensatory mechanisms are studied. Emphasizes under-
standing the rationale for prevention of nursing interventions in health and illness. This is a Level I course. Prerequisite: Admission into the BSN professional program of studies.

NURS3313 Pharmacology in Nursing (Fa) The use of therapeutic drugs in health care is the focus of the course. Nursing assessment, safety measures and client education related to drug therapy are emphasized. This is a Level I course. Prerequisite: Admission into the BSN professional program.

NURS3314 Pathophysiology (Sp, Fa) The course focuses on underlying concepts common to pathophysiologic processes across the life span. Factors that contribute to altered physiologic functioning and the body's adaptive and compensatory mechanisms are studied. Emphasizes understanding the rationale for prevention of nursing interventions in health and illness. This is a Level I course. Prerequisite: Admission into BSN professional program.

NURS3321L Health Assessment (Fa) The course is an assessment of clients on admission, ongoing assessment, nursing care needs, and referral needs. The course presents concepts and skills necessary to perform a holistic health assessment of the adult client. This is a Level I course. Prerequisite: Admission to the BSN professional program.

NURS3422 Nursing Concepts: Foundations of Professional Practice (Fa) Introduction to the nursing process and the scope of basic human needs. The student learns to use nursing diagnoses and care plans. This course is a Level I course. Corequisite: NURS 3423.

NURS3424 Professional Role Implementation I: Caregiver (Sp) Students apply basic nursing concepts and skills in laboratory and clinical settings. Emphasis is on the caregiver role and use of the nursing process. This is a Level I course. Prerequisite: Admission to the BSN professional program.

NURS3634 Nursing Concepts: Adult Health and Illness (Sp, Fa) Focuses on health altered physi-
ologic functioning in adults experiencing acute and chronic problems. Emphasis places strong emphasis on understanding the rationale for therapeutic nursing interventions in illness. The nursing process is used to assist adults meet health needs in structured settings. This is a Level I course. Corequisite: NURS 3643. Prerequisite: Completion of Level I courses.

NURS3634 Professional Role Implementation II: Caregiver (Sp, Fa) Emphasizes the role of caregiver in special care settings. Course covers theoretical and clinical skills learned in previous courses. Emphasizes the use of clinical judgment to promote optimal health among adults experiencing illness and/or undergoing surgery. This

Nursing (NURS)
Course Descriptions

NURS422 V Natural Concepts: Mental Health and Illness (Sp, Fa) Presents the basic concepts and theories of mental health and illness. Examines various therapeutic modalities in the care of clients experiencing mental health problems. This is a Level II course. Corequisite: NURS 3752. Prerequisite: Completion of Level I courses.

NURS3752 Professional Role Implementation III: Care Coordination (Spring, Fall) Students work with clients who have mental health problems, observe group process in therapy sessions, and develop interpersonal communication skills. Students apply research-based knowledge in assisting assigned clients with other health care needs. This is a Level II course. Corequisite: NURS 3742. Prerequisite: Completion of Level I courses.

NURS3841L Professional Nursing Skills: Advanced (Sp, Fa) Introduction to advanced nursing skills. Students will apply advanced skills in laboratory and clinical settings. This is a Level II course. Prerequisite: Completion of Level I courses.

NURS3842 Research in Nursing (Sp, Fa) (Formerly NURS 3343) Introduction to the research process through a comparative analysis of selected studies exemplifying various theoretical, methodological and analytical approaches. Students will develop knowledge and competencies in critical thinking, evaluate and interpret nursing research studies for use in professional nursing practice. This is a Level II course. Prerequisite: Completion of Level I and II courses.

NURS4154 Nursing Concepts: Children and Family (Sp, Fa) Provides theory and research-based knowledge regarding holistic nursing care of children and families. Principles of health promotion and health education for expanding families are integral to this course. This is a Level II course. Corequisite: NURS 4164. Prerequisite: Completion of Level I courses.

NURS4164 Professional Role Implementation IV: Teacher (Sp, Fa) (First Offered Fall 2002, Formerly NURS 4154) Clinical and laboratory experience for application of research-based knowledge and skills in the nursing care of children and families. Emphasis is on teaching role of the nurse. This is a Level II course. Corequisite: NURS 4154. Prerequisite: Completion of Level I and II courses.

NURS4242 Management in Nursing (Sp, Fa) (First Offered Fall 2002, Formerly NURS 3322) Introduces principles of management and the professional nurse's role in the health care system. Considers the perspectives of management, organization, and change theory. Includes strategies for monitoring delivery of care, outcomes and evaluating program effectiveness. This is a Level II course.

NURS4263 Nursing Concepts: Older Adult Health and Illness (Sp, Fa) This course focuses on gerontological theories, concepts, and principles as they relate to nursing care of older adults. Students explore socio-cultural context of gerontology, and the impact of health and illness on older adults, common health concerns, and future considerations. This is a Level II course. Corequisite: NURS 4263. Prerequisite: Completion of Level I and II courses.

NURS4265 Professional Role Implementation VI: Role Synthesis (Fa, Sp) Focuses on role synthesis and research-based nursing practice to provide nursing care to critically ill clients. Students develop nursing skills and clinical judgment, implement and evaluate nursing care of critically ill clients. This is a Level III course. Corequisite: NURS 4443. Prerequisite: Completion of Level I and II courses.

NURS4443 Nursing Concepts: Community (Sp, Fa) The course focuses on theories and concepts in community health nursing. Epidemiology, community assessment, systems of health care delivery, education, school health, public health, home health, industrial health, and health resources are explored in a community health context. This is a Level III course. Corequisite: NURS 4413. Prerequisite: Completion of Level I and II courses.

NURS4613 Professional Role Implementation VII: Role Synthesis (Fa, Sp) Application of community health concepts and theories in the health promotion of community health and to restore health in a variety of primary care settings. This is a Level III course. Corequisite: NURS 4603. Prerequisite: Completion of Level I and II courses.

NURS4712 Seminar in Nursing (Sp, Fa) Focuses on integrating the nursing caregiver, teacher and manager roles. Prepares students to analyze practice issues, trends and future demands. Explores the roles of baccalaureate prepared professional nurses to incorporate those roles as they enter professional practice. This is a Level III course. Corequisite: Completion of Level I and II courses - taken last semester. NURS481V Special Topics in Nursing (Irregular) (1-6) This course is the study of a special topic(s) in nursing. Content varies. May be repeated for up to 6 hours of degree credit.

NURS491V Independent Study in Nursing (Sp, Su, Fa) (1-6) A selected learning experience in nursing to enhance knowledge and/or practice of the profession. Objectives and experiences are designed on an individual basis with a faculty adviser. May be taken with any 3500-level nursing course or above.

NURS5003 Theoretical Foundations in Nursing (Sp) The course utilizes the critical reasoning process to examine and synthesize learning knowledge. Emphasis is placed on concept analysis and the evaluation of nursing theories. Identification of the links between theory and empirical indicators is examined. The clinical relevance of mid-range and practice theories. Corequisite: NURS 5013. Prerequisite: Completion of Level I and II courses.

NURS5013 Advanced Nursing Research I (Sp) This course focuses on scientific approaches to evidence-based practice, research utilization, and outcomes evaluation for clinical practice. Corequisite: NURS 5003.

NURS5023 Advanced Nursing Research II (Su) This course builds on the content of Advanced Nursing Research I. The focus of this course is to prepare the student to design and conduct studies for advanced clinical practice, including identifying the impact on clinical, practice, and organization outcomes. Corequisite: NURS 5013.

NURS5033 Role Development of the Advanced Practice Clinical Nurse Specialist (Sp) The study of role development of the Advanced Practice Nurse with specific emphasis on the role of the Clinical Nurse Specialist (CNS). Concepts include role development, interdisciplinary communication and collaboration, and role responsibilities, and serving as change agent for role implementation. Pre- or Corequisite: NURS 5003.


NURS5111 Clinical Practicum: Advanced Health Assessment (Sp) Clinical practicum companion course for NURS 5102: Advanced Health Assessment. Opportunities to conduct health assessments on a variety of clients. Corequisite: NURS 5102.

NURS5123 Advanced Pharmacology (Su) Advanced concepts and applications of pharmacokinetics and pharmacodynamics of broad categories of agents used for disease management of individuals. Provides the student with the knowledge and skills to manage (including the prescrip- tion of pharmaceutical agents) a client's common health problems in a safe, high quality, cost-effective manner.


NURS5143 Advanced Pathophysiology (Fa) This course is designed for nurses experienced in the manage- ment of physiological disorders. It includes mechanisms of disease, the immune response and selected system based disorders.

NURS5212 Advanced Medical-Surgical Nursing I (Odd years, Sp) Clinical practicum for NURS 5212. Application of advanced theories, concepts, knowledge and skill in the care of diverse adult populations with complex acute health problems. Prerequisite: all core courses.

NURS5225 Clinical Practicum: Advanced Medical-Surgical Nursing II (Even years, Fa) Focuses on utilization of advanced theories, concepts, knowledge and skill in the care of diverse adult populations with complex chronic health problems. Corequisite: NURS 5245. Prerequisite: all core courses.

NURS5245 Clinical Practicum: Advanced Medical-Surgical Nursing II (Even years, Fa) Clinical practicum for NURS 5232. Application of advanced theories, concepts, knowledge and skill in the care of adults with chronic health problems. Corequisite: NURS 5232. Prerequisite: all core courses.

NURS5303 Foundations of Nursing Education (Odd years, Fa) Considers the principles, philosophies, theories, and strategies of teaching, learning, and evaluation in nursing education. Corequisite: NURS 5313.

NURS5313 Curriculum and Evaluation in Nursing Education (Even years, Sp, Su) Considers knowledge and skills needed for curriculum and program development and evaluation for a variety of nursing programs. Corequisite: NURS 5323 Teaching in Nursing Practicum (Even years, Sp) Supervised experience in the nurse educator role in both classroom and clinical settings.

NURS5379V Independent Study (Sp, Fa) (1-3) Independent study designed by student with faculty advisor. May be completed as alternative to thesis.

NURS5389V Workshop (Irregular) (1-3) Practice-based topics for the advanced practice nurse.

NURS559V Seminar (Irregular) (1-3) Selected topics in nursing explored in discussion format.

NURS600V Master’s Thesis (Sp, Fa) (1-3) Independent study designed to fulfill research requirement for the MSN. Corequisite: NURS 5013 and NURS 5023.

Operations Management (OMGT)

OMGT4232 Occupational Safety and Health Standards (Irregular) Survey of existing and proposed federal, state, local, and private health and safety regulations. Performance vs. specific standards. Enforceability and data collection. National consensus and promulgation process. Includes a design project using a computer. (Same as EMTG 4232)

OMGT4303 Industrial Safety Administration (Irregular) Principles of accident and industrial disease prevention; organization and operation of industrial safety and hygiene programs; performance with federal occupational safety and health regulations.

OMGT4313 Law and Ethics (Sp, Su, Fa) Analysis of ethical principles, philosophical, legal, and moral bases. Performance vs. specific standards. Enforceability and data collection. National consensus and promulgation process. Includes a design project using a computer. (Same as EMTG 4232)

OMGT4333 Applied Statistics (Sp, Su, Fa) Fundamentals of probability and distribution theory with applications in managerial decision making. Descriptive methods, probability distributions, sampling distributions, hypothesis testing are included. Not for graduate credit.

OMGT4332 Industrial Cost Analysis (Sp, Su, Fa) Use of accounting information for planning and control from a management viewpoint; principles of cost accounting and other aspects of production costs; budgeting, depreciation, taxes, distribution of profits, securities, sources of corporate capital, and interpretation of financial statements. Not for graduate credit.

OMGT4333 Applied Statistics (Sp, Su, Fa) Fundamentals of probability and distribution theory with applications in managerial decision making. Descriptive methods, probability distributions, sampling distributions, hypothesis testing are included. Not for graduate credit.

OMGT4553 Production Planning and Control (Irregular) Operational problems of production systems.
including control of purchased materials; inventory of a job shop, batch, and continuous production process for single and intermittent; planning of work force and inventory under seasonal and stochastic demand.

OMGT4853 Production and Inventory Control (Irregular) Operational problems of production systems including control of purchased materials; scheduling of job shop, batch, and continuous production processes; planning of work force and production under seasonal demand. Inventories models and strategies are compared. Prerequisite: OMGT 4333.

OMGT4623 Strategic Management (Irregular) Case studies covering the spectrum of strategic management issues facing typical organizations. Designed to provide analysis and synthesis experience to apply principles of operations management. Should be taken in last half of degree program. Required course (may be substituted by OMGT 6878).

OMGT4783 Project Analysis and Control (Irregular) An examination of project planning and control techniques; time-cost trade-offs; allocation of manpower and equipment resources; scheduling activities; computer systems for PERT/CMP. Required course.


OMGT4787 Principles of Operations Research (Irregular) Surveys the mathematical models used to design and analyze operational systems. Includes linear programming models, waiting line models, and management science. Applications of operations research are emphasized. Prerequisite: OMGT 4333.

OMGT5003 Introduction to Operations Management (Irregular) An overview of the functions and areas of Operations Management. Topics covered include: productivity; strategy in a global business environment; project management; quality management for goods and services; generating and handling demand; supply chain and inventory management; material requirements planning; JIT; maintenance and reliability; as well as other subjects relevant to the field. Required course. OMGT5153 Supply Chain Management for Operations Managers (Irregular) This course focuses on the planning, organizing, controlling and management of supply chain activities, including transportation, inventory management, purchasing, warehousing, materials handling, customer service standards, and production. Emphasizes synthesis of the concepts, principles, and methods prevalent in marketing, production, accounting, purchasing, transportation and multi-firm logistics planning for operations managers.

OMGT5113 Human Resource Management (Irregular) Human resource policies and practices are examined including legal foundations, classification and compensation plans, recruitment and selection processes, training, employment policies and morale, compensation, employee relations, and organization.

OMGT5133 Finance for Operations Managers (Irregular) The scope and environment of finance for operations managers, including financial markets, interest rates, financial statements, cash flows, and performance evaluation; valuation of financial assets using time value of money and meaning and measurement of risk and return; capital-bud- gisting, cost of capital, capital structure, and dividend policy. Required course (OMGT 5463 may be substituted). OMGT5133 Operations Management in the Service Sector (Irregular) Review of the role of the operations management in the service sector, e.g., health care systems, banking, municipal services, utilities, and postal services. Focuses on the principles and methodologies applicable to the solution of problems within the service industries. Prerequisite: Graduate standing.

OMGT5143 Contemporary Issues in Human Resource Management (Irregular) The class explores the concept of Strategic Human Resource Management with emphasis on how the various Human Resources functions (Compensation, Benefits, ER, Training & Development, etc.) can effectively partner with top management to support the large-scale, long-range goals of achieving success in the organization’s chosen markets. Students will build on basic concepts acquired in OMGT 5113 Human Resource Management and apply these to selected case studies. Prerequisite: OMGT 5113 or consent.

OMGT5225 Safety and Health Standards Research (Irregular) For graduate students who seek Certified Professional or Certified Industrial Hygienist status, or both. Includes review and development of computer databases for standards, interpretations, court decisions, and field memoranda. Test equipment and procedures for determining indoor industrial air contamination PEL concentrations and industrial environment noise levels are examined. Prerequisite: INEG 4223 or OMGT 4303. (Same as INEG 5223)


OMGT5373 Quality Management (Irregular) Implementation of modern participative quality management techniques in military and civilian operations. Includes quality control, methods and control charts. Acceptance sampling plans with emphasis upon Department of Defense procurement standards. Prerequisite: OMGT 4333.

OMGT5423 Operations Management & Global Competition (Sp) Studies of principles and cases in business/industrial administration in global competition. Survey of markets, technologies, multi-national corporations, cultures, and customs in global operations. Differences in value, human relations skills, and other topics relevant to global engineering practice. Prerequisite: INEG 4433.

OMGT5433 Cost Estimation Models (Irregular) An examination of the methodologies for estimating and forecasting manufacturing costs. Types of cost recovery systems work progress functions, product improvement curves, determination of hourly rates, parametric estimating systems, and the development of software for computer-assisted estimating systems. Prerequisite: INEG 3513 and INEG 3833. (Same as INEG 5433)

OMGT5463 Economic Decision Making (Irregular) Principles of economic analysis with emphasis upon discounted cash flow criteria for decision making. Comparison of criteria such as rate of return, annual cost, and present worth for the evaluation of project alternatives. Required course (may be substituted by OMGT 5123).

OMGT5503 Maintenance Management (Irregular) Principles and practices of maintenance department organization, prevention procedures, and typical equipment problems. Includes related topics such as plant protection, preventive and plant maintenance. Prerequisite: OMGT 4333.

OMGT5733 Human Behavior Analysis (Irregular) Psychological and physiological factors to be considered by the operations manager. Human perceptual and work capacities are examined in relation to various task situations, with emphasis on controlling and monitoring tasks. Fundamental design factors are also considered. Human behavioral aspects of management decisions are considered. OMGT577V Special Problems (Irregular) (1-3) Application of previous course work knowledge to problems encountered in military and civilian organizations. Problems are proposed by students according to individual interests and needs. May be repeated for up to 3 hours of degree credit.

OMGT5823 Computer Applications (Irregular) Computer systems for analysis and control of operations management problems. Coding of operations models and currently available software systems. Microcomputers, minicomputers, and time-sharing systems. Networking and navigating the Internet as a resource for solving operations management problems. Prerequisite: OMGT 4853.

OMGT5872 Organization and Control (Irregular) Examination of organizational decision making authority, structures, and controls. Functions of management-planning, organizing, staffing, directing, and controlling. Comparison of military and civilian viewpoints for the implementation of military and civilian management principles. Required course (may be substituted by OMGT 4823).

OMGT600V Master’s Thesis (Irregular) (1-6)
An Overview (Sp, Fa) 2013 and junior standing. Courses in this intermediate course designed to increase reading efficiency through scanning, skimming, taking notes, summarizing, and interpreting authentic texts. Grammar, syntax, and vocabulary building are also emphases of this course. Students should have completed six hours in elementary Persian or have equivalent exposure to the Persian language. Prerequisite: PERS 1016 or permission of instructor.

PHED1003 The Physical Education Profession: An Overview (Sp, Fa) An introduction to the teaching of physical education.

PHED2002 Teaching and Leading Outdoor Recreation and Experiential Activities (Sp, Fa) This course provides opportunities for the student to acquire the skills, teaching and leadership techniques associated with outdoor recreational and experiential learning activities, including camping, orienteering, cooperative activities, and experiential learning activities. Includes a mandatory weekend trip. Corequisite: PHED 3032. Prerequisites: PHED 1003 or KINS 1013 and PHED 2013 and junior standing.

PHED2013 Teaching Progressions and Assessment (Sp, Fa) This course serves as an introduction to motor skill analysis. Emphasis is placed on teaching and task analysis of locomotor, non-locomotor, and manipulative skills.

PHED2023 Teaching Progressions and Assessment of Advanced Skills (Sp, Fa) This course is designed to teach the progression and analysis of motor and sport skills. Specific emphasis is on the commonalities of various motor skills that apply to various sport movements.

PHED2252 Coaching of Football (Irregular) Discussion and participation in pre-season and off-season training methods.

PHED3001 Practicum I (Sp, Fa) All 5-year teaching option majors serve as teaching assistants in physical education classes under an experienced teacher and have student teaching experience.

PHED3022 Teaching Stunts and Tumbling (Sp, Fa) Instructional strategies for teaching public school students stunts and tumbling skills. Corequisite: PHED 3032. Prerequisites: PHED 1003 or KINS 1013 and PHED 2013 and junior standing.

PHED3032 Teaching Rhythms (Sp, Fa) Designed to teach P-12 Physical Education majors how to perform, teach, develop and implement rhythmic activity. Corequisite: PHED 3032. Prerequisites: PHED 1003 or KINS 1013 and PHED 2013 and junior standing.

PHED3037 Cooperative Education and Sport (Odd years, Fa) Students gain experience critically reviewing literature in physical education as well as related research literature informing effective teaching practices in physical education settings.

PHIL2103 Introduction to Ethics (Sp, Su, Fa) Basic concepts of moral philosophy, including historical and contemporary literature concerned with such issues as ethical relativism vs. objectivism, duty, happiness, freedom of the will, and the role of liberty and society. Application of theories to substantive questions.

PHIL2203 Logic (Sp, Fa) Traditional and modern methods of deductive and inductive inference. Degree credit to be used for one of the following: Politics and Ethical Theory, or Introduction to Philosophy (Irregular).

PHIL3103 Ethics and the Professions (Sp, Fa) After a survey of the standard theories of moral obligation, justice, and rights, the course focuses on specific moral problems that arise within engineering, business, and the professions.

PHIL3113 Environmental Ethics (Odd years, Sp) The course addresses ethical questions about nature and the natural environment. Topics of discussion include anthropocentric and biocentric ethics, population control, obligations to future generations, animal rights, moral considerability, Leopold’s land ethic, deep ecology, and ecofeminism.

PHIL3203 Philosophy and the Social Sciences Laboratory (Fa) Co-requirements and responsibilities, along with laboratory methods of deductive and inductive inference. Degree credit to be used for one of the following: Politics and Ethical Theory, or Introduction to Philosophy (Irregular). This course will deal with philosophical topics that arise in Christian theology. Topics to be discussed may include the doctrine of the Incarnation, the Trinity, atonement, and Hell, as well as the nature of God and the relationship between faith and reason.

PHIL390V Readings (Sp, Su, Fa) (1-6) A course (not independent study) which covers a topic or philosopher that is either unrepresented or not usually presented in regular courses.

PHIL3934 Philosophy and Physics (Irregular) Examination of the metaphysical and epistemological implications of specific physical sciences and the nature of twentieth-century physics. Topics covered may include the nature of space and time (particularly as described in relativity theory), the nature of the quantum mechanical world, and the limitations of the metaphysical and epistemological doctrines found in science and philosophy.

PHIL3983 Capstone Course for Philosophy Majors (Sp) An undergraduate seminar to be taken in the student’s final spring semester. The content will vary with the instructor. The objective is for the student to sharpen his or her philosophical skills by, e.g., writing short papers, giving class presentations, and writing a substantial final essay.

PHIL399V Honors Course (Sp, Su, Fa) (1-6) Prerequisite: Senior standing. May be repeated for up to 12 hours of degree credit.

PHIL4013 Platonic & Christian Theology (Sp) The study of Plato, Middle Platonism, and Neoplatonism, including Plotinus, Plotinus, and Proclus, and the influence of Platonism on the Greek church fathers of the 2nd-5th centuries, principally Origen and Gregory of Nyssa and Pseudo-Dionysius. Prerequisite: 3 hours of philosophy.

PHIL4023 Medieval Philosophy (Sp) Augustine, Bonaventure, Aquinas, Scotus, and Ockham.

PHIL4043 Nineteenth Century Continental Philosophy (Fa) Study of major Continental European philosophers, including Hegel, Kierkegaard, Schopenhauer, Nietzsche. Emphasis on the nature of persons, the question of freedom, and the importance of self-expression, as well as views on knowledge, reality, and the nature of existence. Prerequisite: 3 hours of Philosophy.

PHIL4063 Twentieth Century Continental Philosophy (Sp) Study of major figures (e.g. Husserl, Heidegger, Sartre, Foucault, Derrida) and trends (phenomenology, existentialism, hermeneutics, critical theory, deconstruction) in 20th century French and German thought. Topics include human beings and their place in the world, the role of history and culture, and the possibility of critical reflection.

PHIL4064 Aesthetic Philosophy (Sp) From Frege to recent figures, including Russell, Moore, Wittgenstein, Schlick, Carnap, Ayer, Ryle, Strawson, Quine, including a representative sample of works on the logical analysis of language, logical positivism, and ordinary language analysis. Prerequisite: 3 hours of philosophy.

PHIL4083 Existentialism (Sp) Readings in major figures associated with “Existentialism” (e.g. Kierkegaard, Nietzsche, Heidegger, Sartre, Merleau-Ponty). Emphasis on connections between the metaphysical views of these thinkers, their views of freedom, their conceptions of modernity, and their responses to it.

PHIL4093 Special Topics in Philosophy (Irreg) This course will cover subject matter not covered in regularly offered courses. May be repeated twice for a maximum of 6 hours of credit, as content will vary. May be repeated with a change in topic.

PHIL4113 Social and Political Philosophy (Sp) Selected philosophical theories of the state, social justice, and their connections with individuals.

PHIL4132 Formal Theory (Fa) Study of classical texts in the history of philosophical ethics from Plato to Nietzsche. Philosophers covered may include Plato, Aristotle, Butler, Hume, Kant, and Mill. Prerequisite: 3 hours of philosophy.

PHIL4133 Contemporary Ethical Theory (Fa) A study of contemporary texts in philosophical ethics from G.E. Moore to the present. Philosophers covered may include Moore, von Wright, Strawson, Hare, Foot, and Prawitz. Prerequisite: 3 hours of philosophy.

PHIL4143 Logic of Law (Sp) A philosophical consideration of the nature of law, theory of adjudication, constitutional law, legal reasoning and the limits of law, and selected moral-legal issues (abortion, affirmative action, punishment, etc.).

PHIL4213 Philosophy of Science (Fa) Examination of issues raised in scientific explanation, empirical functions of science, observation and objectivity, nature of laws and theories, realism and instrumentalism, induction and construction, models, causation, and simplicity, beginning with historical survey set in the context of the history of science but emphasizing works from the 1930s to the current period, often including issues in recent physics.

PHIL4233 Philosophy of Language (Sp) A survey of major theories of meaning, reference, truth, and logical form. Attention given to the views of such figures as Frege, Russell, Tarski, Searle, Dummett, and the advocates of possible world’s semantics.

PHIL4253 Symbolic Logic I (Fa) Rigorous analyses of the concepts of proof, consistency, equivalence, validity, implication, and truth. Full coverage of truth-functional logic and quantification theory (predicate calculus). Discussion of the nature and limits of mechanical procedures (algorithmic functions) for proving theorems in logic and mathematics. Informal accounts of the basic facts about infinite sets. (Same as MATH 4253.)

PHIL4303 Philosophy of Religion (Sp) Types of religious belief and critical examination of their possible validity, including traditional arguments and contemporary questions of meaning.

PHIL4403 Philosophy of Art (Sp) Variety of truth and value in the arts and aesthetic experience, focusing on the creative process in the art and in other human activities.

PHIL4423 Philosophy of Mind (Sp) An examination of such questions as the relationship between mind and body, the mentality of machines, knowledge of other minds, the nature of psychological explanation, the relationships between physiology and the other sciences, mental representation, introspection, folk psychology, and determinism.

PHIL4603 Metaphysics (Irregular) Theory and critical analysis of such basic metaphysical problems as mind and body, universals and particulars, space and time, determinism and free will, self-identity and individualism, with emphasis on contemporary perspectives. Prerequisite: 3 hours of philosophy.

PHIL5823 Seminar: Spinoza (Irregular) PHIL5883 Seminar: Wittgenstein (Irregular) PHIL5933 Seminar: Philosophical Theology (Irregular) PHIL5973 Seminar: Metaphysics (Irregular) PHIL5983 Seminar: Philosophical Logical Variance and possible world’s semantics.

PHIL600V Master’s Thesis (Sp, Su, Fa) (1-6) Supervised independent investigation in historical and contemporary philosophy. May be repeated for up to 6 hours of degree credit.

PHIL609V Graduate Readings (Sp, Su, Fa) (1-6) Supervised independent investigation in historical and contemporary philosophy. May be repeated for up to 6 hours of degree credit.

PHIL700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

### Physics (PHYS)

**PHYS100V Projects (Sp, Su, Fa) (1-2)** Independent study in experimental or theoretical physics for lower division undergraduate students. May be repeated for up to 2 hours of degree credit.

**PHYS1021L Physics and Human Affairs Laboratory (Sp, Su) (2-2) Laboratory 2 hours per week. Pre- or Corequisite: PHYS 1023.**

**PHYS1023 Physics and Human Affairs (Sp, Su, Fa)** The great ideas of physics, together with their philosophical and social impact. Emphasis on key topics include cosmology of relativity, quantum mechanics. Philosophical and social topics include methods and values of science, problems related to energy sources, and implications of modern weapons. Non-mathematical. Designed for non-science majors. Along with PHYS 1021L, can be used to satisfy a 4-year physical science requirement for a B.A. degree. Students who have received credit in PHYS 2033 and 2033, or 2053 and 2073 cannot also receive degree credit in this course.

**PHYS1034 Physics for Elementary Education Majors (Sp)** For elementary education majors. Physical science concepts based on state frameworks are explored in a mixed lecture/lab environment. The inquiry-based lab activities can be transferable for school classroom use. Topics covered include: scientific inquiry, motion and forces, conservation of energy, heat, light, electricity and simple circuits, and magnetism. Corequisite: Lab component.

**PHYS1054 Physics for Architects I (Fa)** The relation between the principles of physics and the practice of building and operating structures. Topics include: the behavior of structures under various loads, the statics and dynamics of fluids, thermal storage, thermal expansion, the greenhouse effect, heat transfer, refrigeration, the energy problem, efficiency in the operation of buildings. One underlying theme is that architectural design is part of the architect. Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component.

**PHYS1054S Introduction to Modern Physics (Fa)** An introduction to the basic ideas of 20th century physics, with an emphasis on those that form the foundations of modern physics. Topics covered include quantum theory and its application to atomic, nuclear, optical, and condensed matter physics. No credit is given toward a B.S. major in physics.

**PHYS1074 Modern Physics I (Fa)** Introduction to special relativity, statistical physics, quantum physics, and a survey of nuclear and particle physics. Review of thermal radiation, photon, and wave mechanics. Prerequisite: PHYS 2074.

**PHYS306V Projects (Irregular) (1-3)** Individual experimental or theoretical research problems for advanced undergraduates. May be repeated for up to 3 hours of degree credit.

**PHYS3113 Analytical Mechanics (Fa)** Newton’s laws of motion applied to particles, systems of particles, and rigid bodies. Concepts of work, energy, power, momentum, light and geometric optics. Lecture three hours per week and practicum two hours per week. Pre- or Corequisite: MATH 2544. Corequisite: Lab component. Prerequisite: PHYS 2064.

**PHYS320V Introduction to Electronics I (Sp, Su, Fa) (1-2)** Individualized, self-paced laboratory instruction in electronics requiring no previous electronics experience. Topics include basic DC and AC electronics fundamentals. Pre- or Corequisite: MATH 1203 or MATH 1285. May be repeated for up to 2 hours of degree credit.

**PHYS3344 Electromagnetic Theory (Sp) Electrostatics including dielectrics, magnetostatics and magnetic materials. Maxwell’s equations, radiation theory, and wave propagation. Prerequisite: PHYS 2074. Pre- or Corequisite: MATH 2544.

**PHYS3354 Optics (Fa)** Elements of geometrical, physical, and quantum optics. Lecture 3 hours, laboratory 2 hours. Corequisite: Lab component. Prerequisite: PHYS 2074 or MATH 2544.

**PHYS3601L Modern Physics Laboratory (Fa)** Experiments illustrating the development and concepts of modern physics. No credit given toward a B.S. major in physical sciences. Pre- or Corequisite: PHYS 3603.

**PHYS3603 Introduction to Modern Physics (Fa)** An introduction to the basic ideas of 20th century physics, with an emphasis on those that form the foundations of modern physics. Topics covered include quantum theory and its application to atomic, nuclear, optical, and condensed matter physics. No credit is given toward a B.S. degree in physics.

**PHYS3664 Modern Physics II (Sp, Su, Fa)** Introduc- tion to special relativity, statistical physics, quantum physics, and a survey of nuclear and particle physics. Review of thermal radiation, photon, and wave mechanics. Prerequisite: PHYS 2074.

**PHYS392Hons Colloquium (Irregular)** Covers a special topic or issue, offered as part of the honors program. No more than 3 hours may be offered toward fulfillment of the requirements for the B.S. or B.A. degree in Physics.

**PHYS399VHons (Sp, Su, Fa) (1-6)** Independent study for physics students enrolled in the honors program. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

**PHYS400V Laboratory and Classroom Practicum in Physics (Sp, Su) (1-3)** The pedagogy of curricular materials. Laboratory and demonstration techniques illustrating fundamental concepts acquired through participation in the classroom as an apprentice teacher. Prerequisite: PHYS 3113 or PHYS 3414.

**PHYS4073 Introduction to Quantum Mechanics (Fa)** A survey of quantum mechanics from the wave mechanical point of view including the application of quantum mechanics to the simple harmonic oscillator, atomic electron momentum, and the hydrogen atom. Required corequisite for B.S. Physics majors. Prerequisite: PHYS 3614 and MATH 3404.

**PHYS4103 Physics in Perspective (Odd years, University of Arkansas, Fayetteville 383**
SP) Human implications of physics, including life’s place in the universe, the methods of science, human sense perceptions, environmental impacts of technology, and the effect of physics on modern world views. No credit given toward a B.S. major in Physics. Prerequisite: PHYS 3603 or PHYS 3614.

PHYS203 Physics of Perspective (Odd years, SP) Human implications of physics, including life’s place in the universe, the methods of science, human sense perceptions, energy utilization, social impacts of technology, and the effect of physics on modern world views. Credit allowed for only one of PHYS 4113 or PHYS 4103. Prerequisite: PHYS 3614.

PHYS4203 Physics of Devices (Even years, Sp) Prerequisite: Senior standing or Instructor Consent. A combined lecture/laboratory course covering selected technologically important devices in areas including computing, communication, medical imaging, lasers, and energy utilization. Students will utilize technical journals. No credit given toward a B.S. major in Physics. Prerequisite: PHYS 3603 or PHYS 3614.

PHYS4213 Physics of Devices (Even years, Sp) Principles of physics applied in a selection of technologically important devices in areas including computing, communication, medical imaging, lasers, and energy utilization. Students will utilize technical journals. Credit allowed for only one of PHYS 4203 or PHYS 4213. Prerequisite: PHYS 3614.

PHYS4261 Modern Physics Laboratory (F) (Formerly PHYS 462L) Advanced experiments, projects, and techniques in atomic, nuclear, and solid state physics. Prerequisite: PHYS 3614.

PHYS4734 Introduction to Laser Physics (Sp) A combined lecture/laboratory course covering the theory of laser operation, laser resonators, propagation of laser beams, specific lasers such as gas, solid state, semiconductor and chemical lasers, and laser applications. Prerequisite: PHYS 3414 and PHYS 3544.

PHYS4744 Introduction to Optical Properties of Materials (Odd years, Sp) A combined lecture/laboratory course covering crystal symmetry optical transmission and absorption, reflectivity, surface physics, interference effects, optical constants, carrier mobility, and polarization effects in semiconductors, quantum wells, insulators, and other optically important materials. Prerequisite: PHYS 3414 and PHYS 3544.

PHYS4803 Mathematical Physics (Irregular) Development of mathematics used in advanced physics, including tensors, matrices, group theory, special functions and operators. Prerequisite: MATH 3404.

PHYS5005 Seminar (Sp, Su, Fa) (1-3) Informal discussions of research reported in journals and monographs. May be repeated for up to 3 hours of degree credit. Prerequisite: Graduate Standing or Instructor Consent.

PHYS5333 Electrodynamics (Sp) Wave solutions of Maxwell's equations in free space, wave guides, and resonators; radiation, diffraction, and scattering; steady fields; pulse propagation; semiclassical theory of the laser; relativistic effects; acousto-optic effects, narrow-band optical filters, second harmonic generation, parametric amplification and oscillation, and other types of nonlinear optical techniques which are finding current practical applications in industry. Prerequisite: PHYS 3414 and PHYS 3544.

PHYS5753 Experimental Methods for Nanoscience (Irregular) Fundamentals of the selected techniques suitable for characterization on the nanoscale. Focus on diverse methods such as x-ray and neutron spectroscopy, scanning probe microscopies, optical methods, electron diffraction methods and more.

PHYS5773 Introduction to Optical Properties of Materials (Sp) This course covers crystal symmetry optical transmission and absorption, light scattering (Raman and Brillouin) optical constants, carrier mobility, and polarization effects in semiconductors, quantum wells, insulators, and other optically important materials. Prerequisite: PHYS 3414 and PHYS 3544 or Permission of Instructor.

PHYS5783 Selected Topics in Experimental Physics (Irregular) (1-3) May be repeated for up to 3 hours of degree credit.

PHYS590V Master of Arts Research (Sp, Su, Fa) (1-6) Research Seminar (Fa) (1-6)

PHYS600V Master of Science Thesis (Sp, Su, Fa) (1-6)

PHYS6143 Quantum Mechanics III (Even years, Fa) Relativistic quantum mechanics, second quantization, applications with applications to quantizing electromagnetic fields and to many-body theory. Introduction to Feynman diagrams. Prerequisite: PHYS 5423.

PHYS6153 Advanced Topics in Complexity (Irregular) The goal of the course is to give students tools to investigate the behavior of complex systems and to analyze the relationship of non-linear dynamics and chaos theory to complex biological and non-biological systems. A special emphasis will be given to understanding the way neurons work as biological computing elements.

PHYS6513 Quantum Optics (Even years, Fa) Properties of light and its interactions with atoms, particularly attention given to the laser and recent experiments. Classical theory of resonance; Optical Bloch Eqs.; 2 level atoms in steady fields; pulse propagation; semiclassical theory of the laser; resonances and coherent states; applications to atoms and molecules; interference phenomena, energy level crossings, and laser physics. Prerequisite: PHYS 5073.

PHYS700V Doctoral Dissertation (Sp, Su, Fa) (1-18) May be repeated for up to 18 hours of degree credit.

Course Descriptions

University of Arkansas, Fayetteville
bionotechnology as it is being used in modern agriculture. Coverage includes the basics of molecular biology, production of transgenic organisms, and new applications in the agricultural, food, and medical marketplace. Lecture and discussion, 3 hours per week.

PLPS001 Seminar (Sp, Fa) Review of scientific literature and on current research in plant pathology. Prerequisite: Graduate standing. May be repeated for up to 4 hours of degree credit.

PLPS02V Special Problems Research (Sp, Su, Fa) (1-6) Original investigations of assigned problems in plant pathology. Prerequisite: Graduate standing.

PLPS04V Special Topics (Irregular) (1-18) Lecture topics of current interest not covered in other courses in plant pathology or other related areas. Corequisite: Graduate standing. May be repeated for up to 18 hours of degree credit.

PLPS503 Advanced Plant Pathology: Host-Pathogen Relationships (Odd years, Sp) Presentation of important contemporary concepts relative to disease resistance and the physiology, biochemistry, and molecular biology of plant-pathogen interactions. Lecture 3 hours per week. Prerequisite: PLPS 3004 or equivalent and graduate standing.

PLPS513 Advanced Plant Pathology: Ecology and Epidemiology (Even years, Sp) Presentation of important contemporary concepts relative to the ecology and epidemiology of foliar and soil-borne plant pathogens. Lecture 3 hours per week. Prerequisite: PLPS 3004 and graduate standing.

PLPS404 Diseases of Economic Crops (Su) Diagnosis and management of important diseases of cotton, fruits, rice, trees, soybeans, wheat, and vegetables will be covered in a lecture, laboratory, and field format. Lecture 2 hours, laboratory 4 hours per week. Field 1-2 day field trips will be involved. Corequisite: Lab component. Prerequisite: PLPS 3004.

PLPS532 Professionalism in Plant Science (Odd years, Sp) Discussion of professionalism in science, science ethics and other topics associated with science as a profession such as research funding, writing for publication, career choices, and career development. Prerequisite: Graduate standing.

PLPS563 Plant Pathogenic Fungi (Odd years, Fa) Plant Pathogenic Fungi is structured as an integrated lecture/laboratory class designed for students that are interested in learning the understanding and appreciation for taxonomy, biology, and ecology of plant pathogenic fungi and related saprophytic fungi. Corequisite: Lab component. Prerequisite: PLPS 3004 or BIOL 4424 or graduate standing.

PLPS573 Introduction to Plant Microscopy (Sp) Use of the electron microscope in biological research, including the preparation of various plant and animal specimens and their observation with the electron microscope. Lecture 1 hour, Laboratory 4 hours per week. Prerequisite: Graduate standing.

PLPS600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

PLPS6203 Plant Virology (Odd years, Fa) Lecture emphasis discussing of recent advances in plant virology. Laboratory concerned with techniques and equipment used in plant virus studies, including transmission of viruses, characterization utilizing ultracentrifugation, spectrophotometry, electrophoresis, electron microscopy, and serology. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: Graduate standing.

PLPS630 Plant Pathology (Even years, Fa) Prerequisite: PLPS 3003. Prerequisite: Graduate standing.

PLPS650 Plant Bacteriology (Odd years, Sp) Current concepts and techniques in plant bacteriology, including taxonomy and clinical and molecular aspects of plant pathogenic bacteria and their interactions with hosts. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: BIOL 2013 and BIOL 2011L. May be repeated for up to 3 hours of degree credit.

Polical Science (PLSC)

PLSC203 American National Government (Sp, Su, Fa) Survey of the history, basic ideas, structure, and political processes of the national government of the United States, including the fundamental relationships of the federal system, required of all political science majors.

PLSC203 International Relations (Sp, Su, Fa) An introductory survey of comparative political systems.

PLSC233 State and Local Government (Odd years, Fa) Organization and functions of state and local governments in the United States, intergovernmental relations, administration, adjudication, and the organization and function of political parties on state and local levels.

PLSC265 Introduction to International Relations (Sp, Fa) Introduction to the international system, theories of international behavior, political economy, conflict and peacemaking, the third world, international law and organizations, and the nature of the post-cold war world. (Same as FIFI 213)

PLSC260V Internship in Public Affairs (Sp, Su, Fa) (1-5) Work experience in a public agency arranged by the student under the guidance of a faculty member. Paper required. May be repeated for up to 6 hours of degree credit.

PLSC3103 Public Administration (Sp, Fa) Trends and organization of public administration, dynamics of management: fiscal and personnel management; administrative powers and responsibility. Prerequisite: PLSC 2003.

PLSC3113 Dynamics of Service Sector Organizations (Irregular) Study of service sector organizations and industries which are making significant contributions to national economic growth. Emphasis is placed on management challenges, conflict resolution, leadership and accountability of these organizations. The course addresses recent changes in the environment of service organizations such as the role of technology and innovation. Prerequisite: PLSC 2003.

PLSC3183 Public Administration Form and Substance (Sp) Development of the merit system in government, career systems, human resource planning and development, labor relations, diversity issues, and the legal dimension of public personnel systems. Prerequisite: PLSC 2003.

PLSC3223 Arkansas Politics (Sp) The political system in Arkansas including the political process, public policy, social problems, political behavior, governmental structure, and contemporary issues in policy. Prerequisite: PLSC 2003.

PLSC3233 The American Congress (Fa) A thorough examination of the constitutional role of the legislative branch under the Constitution; the internal procedures and personalities of the Senate and House; the central place of Congress in shaping domestic and foreign policy. Prerequisite: PLSC 2003.

PLSC3243 The Judicial Process (Fa) The structure and operation of the state and national court systems. Emphasis is upon the role of the judiciary in the American political system and the political aspects and consequences of judicial decision-making. Prerequisite: PLSC 2003.

PLSC3253 Government and Politics of the South (Sp) Survey of the diverse ethnic and racial groups of the American South with special emphasis on social and cultural traits related to contemporary developments. (Same as ANTH 2543, SOCI 3253) Prerequisite: PLSC 2003.


PLSC3523 Politics of the Middle East (Fa) Survey of the unity and diversity in the political development of the Middle East, as evident in historical legacies, state formation, civil society, social class, and political identity. Prerequisite: PLSC 2013.

PLSC3573 Governments and Politics of Latin America (Irregular) Comparative survey of Latin America political forces and institutions with special attention to patterns of political change and development in that area. Prerequisite: PLSC 2003.

PLSC3603 Scope and Methods of Political Science (Irregular) The basic principles and assumptions of political inquiry, and a variety of research techniques for gathering and analyzing data about political phenomena. Prerequisite: PLSC 2003.

PLSC3803 International Organization (Sp) The theory and practice of international organizations past and present, with emphasis on the United States and a critical examination of current trends. Prerequisite: Junior standing.

PLSC3813 International Law (Fa) Analysis of the traditional principles of public international law including the law of war, the law of sea and air, and the legal nature of states. Students will be involved. Corequisite: Lab component. Prerequisite: Graduate standing. May be repeated for up to 18 hours of degree credit.

PLSC3823 Theories of International Relations (Sp, Fa) Analysis of major intellectual traditions in the field of international relations, including realism, liberalism, and social constructivism. Emphasis will be placed on how they help us to understand war, revolution, global capitalism, nationalism, peace, and other significant international phenomena. Prerequisite: PLSC 2003 and PLSC 2013.

PLSC3853 American Foreign Policy (Sp) The structure and process for making and implementing the foreign policy of the United States, and an evaluation of current policies in the contemporary international milieu. Prerequisite: PLSC 2003 or PLSC 2013.

PLSC3913 American Political Thought Before 1900 (Fa) Major ideas, issues, and arguments in American Political Thought from the colonial period to approximately 1900.

PLSC3923H Honors Colloquium (Irregular) Covers a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy in political science.

PLSC394V Special Topics in Political Thought (Sp) Twentieth century American political thought, including who should participate, expanding concepts of freedom, political economy, ethnicity, feminism, rights, conservatism, and liberalism.

PLSC394V Readings in Political Science (Sp, Su, Fa) (1-3) For advanced students who wish to study some field of political science beyond the course offering available in the field. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

PLSC3953 American Political Thought (Odd years, Sp) Leading political works by classical writers during ancient and medieval European history.

PLSC3963 Modern European Political Thought (Fa) Major European political writings from Machiavelli to the present. Prerequisite: Junior standing.

PLSC399VH Honors Course (Sp, Su, Fa) (1-3) Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

PLSC400V Special Topics (Irregular) (1-3) Topics in political science not usually covered in other courses.

PLSC4193 Administrative Law (Sp) Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision-making. Emphasis will be placed on the limitation of administrative discretion and the judicial review of administrative decision. Prerequisite: PLSC 3103 or PLSC 4253.

PLSC4213 Campaigns and Elections (Irregular) This course examines the American political system. It is an empirical course that provides opportunities for original analyses of survey data and election returns. Emphasis is placed on the most recent federal election. Prerequisite: PLSC 2003.

PLSC4233 The American Constitution (Sp) An examination of the Constitutional framework and the Offices and roles of the President and state governors of the United States focusing on the evolution of the offices in terms of responsibilities and political leadership. Prerequisite: PLSC 2003.

PLSC4243 Minority Politics (Even years, Sp) Reviews political action and concepts of political activity by minority groups, focusing on contemporary political behavior.

PLSC4253 The U.S. Constitution I (Sp) United States Supreme Court decisions involving the functions and powers of Congress, the Supreme Court, and the President and federalism. Prerequisite: PLSC 2003.

PLSC4293 Federalism and Intergovernmental Relations (Even years, Sp) Analysis of changes in intergovernmental relations in the American federal system. Discussions will focus on political, economic, and administrative aspects of policy changes of the pre- and post-Reagan eras.

PLSC4303 History of Political Parties in the U.S. 1789-1896 (Even years, Fa) Origin and development of the modern party system; an examination of the Constitution to the election of McKinley. (Same as HIST 4813)

PLSC4313 History of Political Parties in the United States Since 1896 (Odd years, Fa) Analysis of the birth of the party system to America’s emergence as an industrial nation and world power from the election of 1896 to present. (Same as HIST 4513)
PLSC4373 Political Communication (Even years, Sp) Study of the nature and function of the communication process as it operates in the political environment. (Same as COMM 4373)

PLSC4513 Creating Democracies (Even years, Fa) Analyses of the creation of democracies in Europe, South America, Asia, and the Middle East, and the former Soviet Union. Prerequisite: PLSC 2013.

PLSC4523 Global Politics of Food (Sp) This course explores the politics of food production, processing, transportation, and consumption on a global level. (Same as ANTH 4183)

PLSC4563 Government and Politics of Russia (Even years, Sp) Study of Russian and Soviet politics after 1917. Special emphasis on the dissolution of Russia and the successor states. Prerequisite: PLSC 2003 or PLSC 2013.

PLSC4573 Gender and Politics (Irregular) Examines the significance of gender in politics. Includes discussion of the women's movement and feminism, but emphasizes the content and process of public policy as it relates to women and men. Focus is on the U.S. but final third is devoted to comparative topics. Prerequisite: PLSC 2003 or PLSC 2013.

PLSC4593 Islam and Politics (Fa) Compares contemporary Islamist political movements. Seeks to explain causes, debates, agendas, and strategies of Islamists in the political arena. Addresses sovereignty, the rule of law, visions of the good state and society, and relations between nationalism, religion and political development. Focus on Middle East with comparative reference to other cases.

PLSC4733 Policy Analysis (Irregular) Comparative analysis of foreign policy, with attention paid to explanations at a variety of levels, such as the individual, group, organizational, societal, systemic.

PLSC5013 Political Cold War (Fa) Examines the cold war from different perspectives: nature of the international system during the cold war; American and Soviet perceptions of the cold war; domestic political considerations; impact of the cold war on the economy, culture, and society; end of the cold war; the post-cold war world.

PLSC4823 Foreign Policy of East Asia (Sp) This course provides an introduction to the international relations of two of the major powers in the world today: China and Japan. Topics include: China and Japan's interaction with the world political and economic systems; domestic sources of international behavior and major dimensions of foreign policy in the 1980s and 1990s.

PLSC4833 International Political Economy (Fa) This course provides an analysis of the interaction between politics and markets in the world economy. Its central objective is to examine how political and state actions have shaped and been shaped by the development of the global economy.

PLSC4843 The Middle East in World Affairs (Sp) An analysis of geo-political and socio-economic characteristics of the Middle East and its interactions with world political and economic order. Special attention to such issues as the Arab-Israeli conflict, the promotion of lasting peace in the region, impact of oil on world politics, the involvement of superpowers in the region, and the rehabilatation of Palestinian refugees and the role of the United Nations.

PLSC4873 Inter-American Politics (Irregular) An analysis of the political themes, regional organization, and hemispheric relations that constitute the inter-American system, with special emphasis on conflict and cooperation in the hemispheric policies of the American republics. Prerequisite: Junior standing.

PLSC4903 Democratic Theory (Fa) Analysis and comparison of classical and contemporary theories of democracy.

PLSC4923 Karl Marx: Life, Work, and Legacy (Irregular) This course examines the writings of Karl Marx. Students will read and discuss his major works, including Capital, The German Ideology, and Grundrisse. In order to understand Marx's writing, students will also explore his life, times, and the context in which he wrote.

PLSC498V Senior Thesis (Sp, Su, Fa) (1-6) Not part of the 30 hour requirement for the major. May be repeated for a total of 30 credits.

PLSC513 Human Behavior in Complex Organizations (Fa) Review of the fundamental literature and a systematic analysis of various theories and research focusing on organizational behavior, public administration, including the discussion of organizational development, human motivation, leadership, rationality, efficiency and conflict management in public organizations. Prerequisite: Graduate standing.

PLSC513 Seminar in Human Resource Management (Fa) Intensive study of public personnel policies and practices, including legal foundation, classification and compensation plans, recruitment and selection processes, training, employment policies and morale, employee relations and organization. Prerequisite: Graduate standing.

PLSC5123 Seminar in Public Finance (Fa) Focuses on the budgeting process and governmental fiscal policy formulation, adoption, and execution. Prerequisite: Graduate standing.

PLSC5133 Management of Service Sector Organizations (Odd years, Sp) This course provides an overview of the principal management functions in public and nonprofit organizations. Topics include financial management, HRM, organizational behavior, marketing, ethics, service delivery, politics, and pattern program are analyzed, and the complex environment with service sector agencies are explored. PLSC5143 Administrative Law (Sp) A seminar which examines the constitutional and statutory basis and authority of public organizations. Special attention focuses on the nature of the rule-making and adjudicatory powers of public agencies and on executive, legislative, and judicial constraints on such activities. Also considered are the role, scope, and place of public regulatory activities. Prerequisite: Graduate standing.

PLSC5153 Environmental Politics and Policy (Even years, Fa) Surveys recent patterns of environmentalism in the U.S. and explores the nature of policy making with regard to environmental and economic development issues. Special attention will be placed on the process of policy formulation, adoption, and execution. Prerequisite: Graduate standing.

PLSC5163 Public Policy (Fa) Research seminar examining the study of public policy making in complex human systems. Attention given to issues dealing with cognitive limitations in decision settings, the use of reasoned persuasion vs. power, the appropriate validation of technical analysis. Prerequisite: Graduate standing.

PLSC5173 Community Development (Irregular) Community development encompasses the political, social, and economic development of communities. The seminar examines substantive issues in community development, related theories, and techniques. A major focus of the course will be on low-income and minority neighborhoods and efforts to make more inclusive communities in the U.S. and abroad.

PLSC5193 Seminar in Public Administration (Fa) Introduction to and synthesis of public administration theory, conceptualization, public administration functions, public accountability and management concerns, economic impact of administrative decisions, current problems, and issues in the public sector. Prerequisite: Graduate standing.

PLSC5203 Seminar in American Political Institutions (Fa) Research seminar dealing with selected aspects of the major governmental institutions in the United States. Prerequisite: Graduate standing.

PLSC5213 Seminar in Political Behavior (Sp) Reading seminar surveying major works on representational processes in American national politics, including political opinion, political leadership, political participation, voting behavior, political parties, and interest groups. Prerequisite: Graduate standing.

PLSC5243 Seminar in State Politics and Policy (Even Years, Fa) Research seminar dealing with selected aspects of state political institutions and public policies and processes, including policy diffusion, institutional professionalization, and repre

PLSC5253 Seminar in Political Communication (Irregular) Research seminar focusing on selected topics such as candidate imagery, diffusion of political information, or political symbolism. Prerequisite: Graduate standing.

PLSC5503 Comparative Political Analysis (Fa) A selection of topics to provide the theoretical, conceptual, and methodological foundation for the analysis of contemporary political systems. Prerequisite: Graduate standing.

PLSC5513 Seminar in Politics of the Middle East (Sp, Su, Fa) (1-6) An analysis of the Middle East and its successor states. Prerequisite: Graduate standing.

PLSC5523 Seminar in the Middle East (Sp) In-depth analysis of specific political phenomena in the contemporary Middle East. Inquiry will vary but may focus on gender, political economy, politics of inclusion and exclusion (democratization and authoritarianism), or the politics of oil. Prerequisite: Graduate standing.

PLSC555V Seminar in International Political (Fa) Research seminar providing intensive coverage of selected topics in theories of international relations, the comparative study of foreign policy making, and international organization. Prerequisite: Graduate standing.

PLSC5833 Seminar in Contemporary Problems (Fa) Seminar with concentrated reading in selected and specialized areas of contemporary international relations. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

PLSC5843 International Legal Order (Fa) Analysis of distinctive characteristics of contemporary international legal order and the role of legal order in controlling the use of force in international relations and the impact of social and political environment on growth of international law and relations among international political systems. Prerequisite: Graduate standing.

PLSC590V Directed Readings in Political Science (Sp, Su, Fa) (1-3) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

PLSC5913 Research Methods in Political Science (Fa) Methods relevant to research in the various fields of political science. Required of all graduate students in political science. Prerequisite: Graduate standing.

PLSC592V Internship in Political Science (Sp, Su, Fa) (1-6) internship in a local, state, regional, or federal agency. Paper required on a significant aspect of internship experience. Prerequisite: Graduate standing.

PLSC593V Special Topics in Political Science (Sp, Su, Fa) (1-6) Topics in political science not usually covered in other courses. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

PLSC594V Research Problems in Political Science (Sp, Su, Fa) (1-3) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

PLSC5963 Modern Political Thought (Irregular) European political thinking since the rise of the nation-state and the relevance of that tradition to contemporary politics. Prerequisite: Graduate standing.

PLSC5973 Contemporary Normative Political Theory (Sp) Analysis of current normative political theories such as obligation, dissent, justification, sovereignty and tolerance, and major schools of thought including Marxism, liberalism and western conservatism. Prerequisite: Graduate standing.

PLSC600V Master's Thesis (Sp, Su, Fa) (1-6)
POSC3042 Animal Physiology II (Sp) Fundamental aspects of renal, respiratory, digestive, and endocrine physiology will be covered. The normal structure and function of these systems will be emphasized. Lecture 2 hours per week. Prerequisite: BIOL 1543 and CHEM 1123 or CHEM 1074. (Same as ANSC 3032)

POSC3123 Principles of Genetics (Fa) Fundamentals of heredity, with special emphasis on the improvement of farm animals. Lecture 3 hours per week. Prerequisite: BIOL 1543 and MATH 1203 or higher. (Same as ANSC 3123)

POSC3223 Poultry Diseases (Fa) Common diseases affecting poultry reared under commercial conditions will be covered. Emphasis will be given to etiology, prevention, pathogenesis, immunity, sanitation practices, and chemoprophylaxis will also be covered. Lecture 3 hours per week with some demonstrations, slides and videotapes. Prerequisite: BIOL 2011L and junior standing. (Same as ANSC 3223)

POSC3382 Poultry Judging and Selection (Sp, Fa) Practice in production judging and flock selection. Laboratory 4 hours per week.

POSC3564 Avian Anatomy (Sp) Detailed coverage of the external and internal anatomy of poultry, including formation and development of the egg and embryo. Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component.

POSC400V Special Problems (Sp, Su, Fa) (1-9) Special problems in the poultry sciences for advanced students. May be repeated for up to 9 hours of degree credit. Prerequisite: BIOL 2011L and junior standing.

POSC4023 Advanced Analytical Methods in Animal Physiology (Sp, Su, Fa) (1-6) Superintensive course in animal physiology. Laboratory 3 hours per week. Prerequisites: MATH 1203 or higher and junior standing.

POSC405L Advanced Analytical Methods in Animal Physiology Lab (Sp, Su, Fa) (2) Laboratory 4 hours per week.

POSC4143 Biochemical Nutrition (Even years, Fa) Principles of nutrition as applied to the formulation of practical chicken and turkey rations. Lecture 3 hours per week. Prerequisite: CHEM 2613 or CHEM 3603 and junior standing.

POSC4433 Poultry Breeding (Odd years, Fa) Application of new developments in poultry breeding for efficient feed conversion. Not intended for students interested in a career in veterinary sciences. Lecture 3 hours per week. Prerequisite: MATH 1203 or higher and junior standing.

POSC4434 Fundamentals of Reproductive Physiology (Fa) Principles of avian reproductive physiology with emphasis on poultry. Lecture 3 hours per week. Corequisite: Lab component. Prerequisite: POSC 1003 and POSC 3123.

POSC4901 Undergraduate Seminar (Sp) Required by all poultry science majors. Junior standing. Lecture 3 hours per week. Prerequisite: Junior standing. (Same as ANSC 4901)

POSC500V Special Problems (Sp, Su, Fa) (1-6) Work in special problems of poultry industry. Prerequisite: Graduate standing.

POSC501V Special Topics in Poultry Sciences (Irregular) (1-4) Topics not covered in other courses or a more intensive study of specific topics in poultry science. Prerequisite: Graduate standing.

POSC5123 Advanced Animal Genetics (Even years, Fa) Specialized study of animal genetics. Lecture 3 hours per week. Prerequisite: POSC 3123 or ANSC 3123. (Same as ANSC 5123)

POSC5143 Biochemical Nutrition (Even years, Fa) Interrelationship of nutrition and physiological chemistry; structure and metabolism of physiological significant carbohydrates, lipids, and proteins; integration of metabolism with provision of tissue energy; and renal excretion of proteins in poultry. Prerequisite: CHEM 3813. (Same as ANSC 5143)

POSC5152 Protein and Amino Acid Nutrition (Even years, Fa) Introduction into theory and modern methods of protein metabolism, digestion, absorption and tissue protein synthesis. Lecture 3 hours per week. Prerequisite: BIOL 1543. (Same as ANSC 5152)

POSC5231 Domestic Animal Bacteriology (Fa) A study of bacteria pathogenic for domestic animals. Lecture 3 hours per week. Prerequisite: BIOL 1543 and ANSC 3123.

POSC5343 Advanced Immunology (Sp) Aspects of innate, cell-mediated, and humoral immunity in mammalian and avian species. Molecular mechanisms underlying the function of the immune system will be covered. A course in Basic Immunology prior to enrollment in Advanced Immunology is recommended but not required. Lecture 3 hours per week. Prerequisite: BIOL 5343.

POSC5352L Immunology in the Laboratory (Sp) Laboratory course on immune-diagnostic laboratory techniques and uses of antibodies as a research tool. Includes cell isolation and characterization procedures, immunochromatography, ELISA and cell culture assay systems. Laboratory 6 hours per week. Prerequisites: POSC 5343 or BIOL 5343 or BIOL 4713.

POSC5743L Advanced Analytical Methods in Animal Sciences (Sp) Introduction to theory and application of current advanced analytical techniques used in animal research. Two 3-hour laboratory periods per week. Prerequisite: ANSC 5743L.

POSC5752L Poultry Diseases Laboratory (Sp) Lecture course on poultry diseases techniques utilized for isolation, identification and diagnosis of poultry diseases with a microbial cause. Students will learn diagnostic virology, bacteriology, serology and mycology. Laboratories 3 hours twice weekly and then as needed to complete assignments. Prerequisites: POSC 3223 and POSC 5742.

POSC5763 Protozoan Parasites of Domestic Livestock and Companion Animals (Even years, Fa) Course topics will include economically and medically important protozoan parasites of domestic livestock and companion animals, with an emphasis on their significance for animal and human health. Lecture/discussion 3 hours per week. Prerequisite: General undergraduate biology and chemistry. (Same as ANSC 5763)

POSC5873 Molecular Analysis of Foodborne Pathogens (Fa) This course will cover detection and identification of foodborne pathogens, the molecular response of foodborne pathogens to their environment, functional genomic approaches, and analysis of complex microbial communities. Lecture/discussion 3 hours per week.

POSC5901 Graduate Seminar (Sp, Fa) Critical review of the current scientific literature pertaining to the field of poultry science. Lecture and Reitation 1 hour per week. Prerequisite: Senior standing.

POSC5922 Neuroscience (Fa) Course covers cellular and molecular response of foodborne pathogens to their environment, quality and regulatory implications. Corequisite: neuroscience course.

POSC600V Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

POSC6343 Vitamin Nutrition in Domestic Animals (Even years, Sp) The vitamins required by domestic animals with emphasis upon their role in animal nutrition, metabolism, and growth. Prerequisite: POSC 1003. Instructor permission. (Same as ANSC 6343)

POSC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Graduate standing.
Course Descriptions

PSYC 2013. Introduction to the problems, theories, and experiments of behavior. Prerequisite: Six hours of psychology, not including PSYC 2014.

PSYC 2014. Psychology of Business and Industry (Irregular). Application of psychological principles to the problems of business and industry with emphasis upon employee morale and attitudes, labor turnover, industrial relations, safety, fatigue, etc. Prerequisite: PSYC 2003.


PSYC 3093 Developmental Psychology (Sp, Fa). Theories and representative research in the psychological factors influencing development, including both hereditary and environmental factors from conception through adolescence. Prerequisite: PSYC 2003.

PSYC 3101 Cognitive Psychology (Sp). Introduction to theories and research in cognition including memory, language, and attention. Prerequisite: PSYC 2003.

PSYC 3203 Experimental Psychology (Sp, Su, Fa) (1-3). A lecture/laboratory course covering research in a specialized area of psychology. Provides experience with design, conduct, analysis, and interpretation of research projects related to class topics. Successful completion of the class, including a formal paper in APA style, with a grade of C or better will fulfill the senior writing requirement. Prerequisite: PSYC 3073 with a grade of C or better. 

PSYC 3283 Advanced Seminar (Sp, Su, Fa) (1-3). A seminar discussion class covering research in specialized areas of psychology. Students will read original sources and present their ideas and conclusions in several formats. Successful completion of the class, including a formal paper in APA style, with a grade of C or better will fulfill the senior writing requirement. Prerequisite: Eighteen hours of psychology including a grade of C or better in PSYC 3073.

PSYC 5013 Advanced Developmental Psychology (Sp) Critical examination of the research relevant to the psychological factors influencing the growth processes of the individual from birth to maturity. Prerequisite: PSYC 4073.

PSYC 5023 Neuropsychological Assessment (Irregular). Introduction to the principles, techniques, and tools of assessment in clinical neuropsychology. Includes training in the interpretation, integration, and reporting of results. Prerequisite: PSYC 5043; enrollment in the Psychology graduate program.

PSYC 5033 Human Neuropsychology (Fa) Psychological and somatic factors contributing to pathological behavior. Interpretations of these factors will be analyzed in terms of how they lead to differential abnormal states. Prerequisite: PSYC 3023; enrollment in the Graduate Program in Psychology, or consent.

PSYC 5043 Assessment of Intellectual and Cognitive Abilities (Fa). Training in the theory, administration and interpretation of intelligence tests, with a focus on intelligence and mental ability. Prerequisite: PSYC 4063; Enrollment in the Psychology Graduate Program.

PSYC 5053 Advanced Personality Assessment and Clinical Diagnosis (Fa). Guidance for using standardized instruments and structured interviews in the diagnosis and clinical assessment of major psychological disorders. Includes training in the interpretation, integration, and reporting of results. Prerequisite: PSYC 5043 and PSYC 5163.

PSYC 5063 Advanced Social Psychology (Sp). Theory, methodology, and contemporary research in the major areas of social psychology. Topics include attitude theory and measurement, group processes, social and cultural factors.

PSYC 5073 Introduction to Clinical Practice: Core Clinical Skills Guidelines (Sp). An introduction to the practice of clinical psychology. Prerequisite: PSYC 507.

PSYC 5113 Theories of Learning (Fa). Major concepts in each of the important theories of learning. Prerequisite: PSYC 4073.

PSYC 5123 Cognitive Psychology (Even years, Sp). Contemporary theories and research on human information processing including topics such as memory, language, thinking, and problem solving. Prerequisite: PSYC 5133. Inferential Statistics for Psychology (Fa). Inferential statistics, including representative parametric tests of significance. Special emphasis on analysis of variance, covariance, and component variance estimators as applied to psychological research. Prerequisite: PSYC 2014 or STAT 2013. (Same as STAT 5133)

PSYC 5143 Advanced Descriptive Statistics for Psychology (Sp). Special correlation techniques followed by a survey of representative nonparametric tests of significance. Major emphasis on advanced analysis of variance theory and design. Prerequisite: PSYC 5133. (Same as STAT 5143)

PSYC 5153 Personality: Theory & Disorder (Sp). An introduction to empirically based theories of personality and personality disorders with an emphasis on clinical application and intervention. Prerequisite: Enrollment in the Psychology graduate program.

PSYC 523V Research Practicum (Sp, Fa) (1-3). Presentation, evaluation, and discussion of on-going research projects. Required of all experimental graduate students in the first 2 years of the program. Prerequisite: PSYC 5133 Introduction to Clinical Science: Research Design and Ethical Guidelines (Fa) Provides a) guidelines for designing and conducting empirical research in clinical psychology, b) ethical principles that regulate clinical research, and c) supervised opportunities to apply clinical research principles. Enroll in the Psychology graduate program.

PSYC 600V Master’s Thesis (Sp, Su, Fa) (1-6) PSYC 602V Seminar: Teaching Psychology (Sp, Fa) (1-3). Survey of the literature in college. Includes: planning the course, method, examining and advising students. Prerequisite: Teaching assistant.

PSYC 607V Clinical Practicum III (Sp, Fa) (1-3) Provides supervised experience in the application of the more complex and less known psychodiagnostic techniques and training and experience in psychotherapeutic techniques with the more severe functional disorders. Level of responsibility varies to increase skills. Prerequisite: PSYC 5073; Enrollment in the Psychology graduate program.

PSYC 608V Clinical Practicum IV (Sp, Fa) (1-3) Provides supervised experience in the application of the more complex and less known psychodiagnostic techniques and training and experience in psychotherapeutic techniques with the more severe functional disorders. Prerequisite: PSYC 5073; enrollment in the Psychology graduate program. Prerequisite: PSYC 5073; enrollment in the Psychology graduate program.

PSYC 611V Individual Research (Sp, Fa, Su) (1-18) Provides intensive coverage of specialized clinical topics. Open to all graduate students. May be repeated for up to 3 hours of degree credit.

PSYC 616V Individual Research (Sp, Fa, Su) (1-18) Provides intensive coverage of specialized clinical topics. Open to all graduate students. May be repeated for up to 3 hours of degree credit.

PSYC 619V Psychological Research (Sp, Su, Fa) (1-18) Provides intensive coverage of specialized clinical topics. Open to all graduate students. May be repeated for up to 3 hours of degree credit.

PSYC 621V Individual Research (Sp, Fa, Su) (1-18) Provides intensive coverage of specialized clinical topics. Open to all graduate students. May be repeated for up to 3 hours of degree credit.

PSYC 6237 V Practicum (Sp, Fa) (1-6) Provides intensive coverage of specialized clinical topics. Open to all graduate students. May be repeated for up to 3 hours of degree credit.

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PSYC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Plant Sciences (PTSC)

PTSC6101 Colloquium in Plant Sciences (Sp, Fa) Advanced discussion of topics in plant science on a participatory basis. Topics in plant pathology, horticulture and forestry will be treated. Prerequisite: Graduate standing. May be repeated for up to 2 hours of degree credit.

PTSC6203 Laboratory Instrumentation in Plant Science (Odd years, Sp) Principles, capabilities, and operation of laboratory instrumentation utilized in plant science research. Lecture 2 hours; laboratory 3 hours per week. Corequisite: Lab component.

PTSC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Graduate standing.

Public Policy (PUBP)

PUBP6001 Pro-Seminar (Fa) An introduction to the field of public policy and to the program. The seminar will address topics such as the meaning of public policy, policy research, the dissertation process, and particular issues of public policy. Prerequisite: Admission to program. May be repeated for up to 2 hours of degree credit.

PUBP6023 Law and Public Policy (Fa) This course focuses on the legal aspects of public policy, with emphasis on the regulatory process and its legal constraints. Also considered are the process of administrative decision making, judicial review, legislative oversight, and public access to government information. Co- or Prerequisite: PUBP 6012.

PUBP604V Special Topics in Public Policy (Irregular) (1-6) Designed to cover specialized topics not usually presented in depth in regular courses. May be repeated for up to 6 hours of degree credit.

PUBP6103 Policy Leadership Seminar (Irregular) This interdisciplinary seminar will explore the relationship between policy, public administration, and organizations in the community. Stakeholder groups will be considered as part of the regulatory process and policy formation. The class will examine innovative approaches to decision making, strategic management and policy leadership in complex interorganizational and interagency settings.

PUBP6113 Agenda Setting and Policy Formulation (Irregular) This course is a seminar on agenda and policy formation focusing on the classic theoretical and empirical literature. The course is designed to introduce graduate students to the art and science of public agenda setting and policy formulation. It covers the basics of agenda setting and policy formulation and addresses basic criteria, students make critical appraisals of current approaches, and use the course as a foundation.

PUBP612V Research Problems in Policy (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

PUBP6134 Capstone Seminar in Public Policy (Sp, Fa) This course is intended to integrate various policy interests in a specific community based project. Prerequisite: PUBP 6113.

PUBP6138A Thesis (Sp, Su, Fa) (1-18) Prerequisite: candidacy. May be repeated for up to 18 hours of degree credit.

Recreation (RECR)

RECR1003 Professional Foundations of Leisure (Fa) An analysis of the historical and philosophical development of recreation and leisure. Theories of play, recreation, and leisure are studied. Economic, political, technical, and social forces are examined as these influence recreation, parks, and leisure services. Recreation is examined in context with diverse service delivery systems.

RECR1023 Recreation and Natural Resources (Fa) An examination of the use and management of natural resources in recreation. Emphasis is placed on the development and application of therapeutic techniques. Priority is given to students with an interest in a specific community based project.

RECR2063 The Commercial Recreation and Tourism Enterprise (Fa) Examination of the commercial recreation and tourism industries. The operational requirement of a wide range of recreation businesses will be studied. Corequisite: Senior standing. May be repeated for up to 3 hours of degree credit.

RECR2813 Leadership Techniques in Recreation (Fa) Development of knowledge related to leadership theory, group dynamics, and interpersonal techniques. Students gain an understanding of leadership theories as they are applied in a field setting.

RECR2853 Leisure and Society (Fa) This course is an examination of leisure and its effect on society. Course content includes identification and evaluation of motivating factors related to various traditional and contemporary leisure expressions as it occurs across diverse populations.

RECR3012 Intercollegiate Sports, Basketball, and Baseball (Irregular) Provide the individual with the basic knowledge of sport rules and mechanics of officiating basketball, softball, and baseball.

RECR3833 Program Planning in Recreation (Sp) Development of the fundamentals of program planning using modern techniques of identifying and analyzing program activity areas and community needs. Includes program development and application with a variety of population groups and representative leisure service areas. Prerequisite: RECR 1003 and RECR 2813.

RECR3843 Planning, Design, and Maintenance for Recreation and Sport Facilities (Fa) Co- or Prerequisite: RECR 3833 and junior standing. Prerequisite: RECR 1003 and RECR 2813.

RECR3873 Sport and Recreation Risk Management (Sp) Indepth look at risk management and related legal issues affecting recreation and sport administration. Prerequisite: RECR 3833 and junior standing. (Same as HESC 3623)

RECR4003 Innovative Practices in Recreation (Fa) Management techniques for recreation programs and facilities.

RECR4013 Contemporary Issues in Leisure (Sp) Discussion of selected topics and review of current literature in the recreation field. Analysis of current trends and professional issues currently facing the social service field, with the social service level or higher in at least 2 areas of expertise must be completed before a grade is assigned in this course. Prerequisite: Senior standing.

RECR405V Independent Study in Recreation (Sp, Su, Fa) (1-3) Provides student an opportunity to pursue special study of research problems.

RECR4083 Research and Evaluation in Recreation (Sp, Su, Fa) (4 hours per week) In an on-going undergraduate recreation class serving as the teaching laboratory. The what “when” and “how” relative to integrating various teaching techniques with specific content areas in the class will be explored by both the student and the instructor.

RECR560V Workshop (Irregular) (1-3) May be repeated for up to 3 hours of degree credit.

Rehabilitation Education (RHAB)

RHAB533 Counseling Persons Who Are Deaf or Hard of Hearing (Sp, Fa) Focuses on the application of basic principles underlying all forms of therapeutic interaction to professional counseling practices with individuals who are deaf or hard of hearing.

RHAB534 Supervised Rehabilitation Counselor Practice (Sp, Su, Fa) (1-3) This course is designed to provide the student with an opportunity to apply theoretical knowledge and skills in a community agency setting.

RHAB5353 Counseling Persons Who Are Deaf or Hard of Hearing (Sp, Fa) (1-3) Provides the student with the skills and knowledge necessary for the provision of therapeutic services. Prerequisite: RECR 4093.

RHAB543 Trends and Issues in Therapeutic Recreation (Irregular) Advanced study for students concerned with therapeutic recreation services. The purpose of the course is to study the therapeutic recreation process, the development of treatment plans and the effect of therapeutic recreation on the individual client. Prerequisite: RECR 4093.

RHAB5533 Hearing Impairment and Human Behavior (Sp, Fa) Focuses on a multidisciplinary study of hearing impairment and hearing loss on the individual, psychological, social, and vocational functioning of persons who are deaf or hard of hearing.

RHAB5536 Employer Relations and Placement
Rhab5433 Medical Aspects of Disability (Sp)  
Orientation to medical and medically related aspects of various disabling conditions with emphasis on the severely disabled.  
(Same as Recr 433)

Rhab5443 Rehabilitation Case Management (Sp)  
Counseling process in the rehabilitation setting. 
Focusing upon effective counseling strategies, representative cases, and effective case management methods.

Rhab5453 Psychological Aspects of Disability (Sp)  
Intensive study of the psychological aspects of adjustment to atypical physical and prolonged handicapping condition.  
(Rethods and Research 533)

Rhab5463 Independent Living and Community Adjustment (Fa)  
Study of the problems and practices involved in developing and maintaining independent living reha-bilitation programs for people who are disabled physically, developmentally, and mentally.

Rhab5473 Placement of Persons with Disabilities (Fa)  
Focuses on placement theory and practice as they apply to persons with disabilities. Special attention is given to RehabMark approach.

Rhab5483 Rehabilitation Counseling Research (Fa)  
An indepth examination of rehabilitation research methodology and issues to prepare students to critically evaluate and use rehabilitation counseling research in their professional practice.

Rhab5493 Vocational Evaluation and Adjustment (Sp, Su)  
An indepth examination of theories and techniques related to evaluation of vocational potential and work adjustment of people with disabilities.

Rhab574V Internship (Sp, Su, Fa) (1-9)  
May be repeated for up to 18 hours of degree credit.

Rhab605V Independent Study (Sp, Su, Fa) (1-18)  
May be repeated for up to 18 hours of degree credit.

Rhab6203 Disability Policy in the U.S. (Fa)  
An analysis of policies and practices related to disability in the U.S. Examines the political and philosophical origins of disability policy; reviews major disability legislation and its effects on policy stakeholders; describes recent initiatives; and analyzes evolving disability policy within context of changing societal, economic, and political conditions.

Rhab6213 Advanced Psychosocial Aspects of Disability (Fa)  
A theoretical and applied study of techniques and approaches to the psychological treatment of people with 2 major life events: disability and unemployment.

Rhab6233 Employment Practices and Interventions (Sp)  
An intensive study of the employment experiences of workers with disabilities with emphasis on disincentives and barriers to employment and interventions to enable people with disabilities to participate in employment. 
Prerequisite: Rhab 5493 or equivalent.

Rhab6243 Advanced Rehabilitation Research (Sp)  
An advanced doctoral level course to facilitate the application of scientific values, research skills, and behavior to the generation of rehabilitation knowledge and problem solving.

Rhab625V Teaching Internship in Rehabilitation (Sp, Su, Fa) (1-18)  
Graduate teaching experience in the rehabilitation counseling curriculum. Under the supervision of a faculty mentor, will participate in the delivery of professional curricula, course development and evaluation. Will team teach graduate rehabilitation courses with the faculty member. May be repeated for up to 18 hours of degree credit.

Rhab6875V Internship (Sp, Su, Fa) (1-18)  
Advanced supervised practice in a rehabilitation setting. 
Rhab689V Seminar (Sp, Su, Fa) (1-18)  
Discussion of pertinent topics and issues in the rehabilitation field.  
Prerequisite: Advanced graduate standing. May be repeated for up to 18 hours of degree credit.

Rhab700V Doctoral Dissertation (Sp, Su, Fa) (1-18)  
Prerequisite: Candidacy.

Rural Sociology (RSOC)  

RSOC2603 Rural Sociology (Sp)  
Meaning of sociological concepts with references to rural society. 
Interdependence of rural and urban populations in ecological areas; institutions; social change and adjustment.

RSOC4603 Environmental Sociology (Sp)  
The course provides a social perspective on environmental issues. It examines the linkage between society, ecological systems and the physical environment. It provides conceptual framework(s) for analyzing environmental issues, considers the role of humans in environmental issues, and enhances understanding of the complexity of the relationship between societal organization and environmental change.  
(Same as Soei 4603)

RSOC500V Special Problems (Sp, Su, Fa) (1-6)  
Gives experience in executing research and in analyzing a sociological problem of agriculture. 
Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

RSOC6232 Internship (Sp, Su, Fa) (1-6)  
Prerequisite: Doctoral standing.

RSOC700V Doctoral Dissertation (Sp, Su, Fa) (1-18)  

Russian Studies (RSST)  

RSST4003 Russian Studies Colloquium (Sp)  
An introduction to current research and general knowledge in subject of investigation, required of all students in the Russian Studies program.  
Prerequisite: Sophomore standing for Russian studies majors and honors students. May be repeated for up to 6 hours of degree credit.

Russian (RUSS)  

RUSS1003 Elementary Russian I (Fa)  
 RUSS1013 Elementary Russian II (Sp)  
Elementary course stress correct pronunciation, aural comprehension, and simple speaking ability, and lead to mastery of basic grammar and limited reading ability.  
Prerequisite: RUSS 1003 or equivalent.

RUSS2003 Intermediate Russian I (Fa)  
Intermediate course correct pronunciation, aural comprehension, and simpe speaking ability, and lead to mastery of basic grammar and limited reading ability.  
Prerequisite: RUSS 1013 or equivalent.

RUSS2013 Intermediate Russian II (Sp)  
Continued development of basic, speaking comprehension and writing skills and intensive development of reading skills.  
Prerequisite: RUSS 2003 or equivalent.

RUSS3030 Introduction to Literature (Fa)  
Development of reading skills and introduction to literary analysis.  
Prerequisite: RUSS 2013 or equivalent.

RUSS3023 Listening Comprehension (Sp)  
Provides intensive practice in listening to recordings taken from such sources as television broadcasts, lectures, and readings of literature. This is supplemented by conversation and by comprehension tests.  
Prerequisite: RUSS 2013 and RUSS 2013.

RUSS4123 Survey of Russian Literature from Its Beginning to the 1917 Revolution (Fa)  
The instructor will discuss the historical and cultural backgrounds while focusing on major writers and will deal with literature as an outlet for social criticism. There will be textual analysis. It will be taught in English.  
(Same as Wlt 4123)

RUSS4133 Survey of Russian Literature Since the 1917 Revolution (Sp)  
The course focuses on the historical and cultural backgrounds while focusing on major writers and will deal with literature as an outlet for social criticism. There will be textual analysis. It will be taught in English with readings in English.  
(Same as WLT 4133)

RUSS475V Special Investigations (Sp, Fa) (1-6)  

Social Work (SCWK)  

SCWK2133 Introduction to Social Work (Sp, Su, Fa)  
Introduction to social work as a profession and to social welfare institutions from the perspective of the generalist, entry level social worker.  
Emphasis on empowerment function of social work.

SCWK3163 On Death and Dying (Sp, Su, Fa)  
Reviews the theory and humanistic importance of the concepts of death and dying in society. An experimental option and interdisciplinary faculty presenters will be part of the format.  
(Same as Humn 3163)

SCWK3193 Human Diversity and Social Work (Sp, Su, Fa)  
An introduction to information basic concepts related to human diversity and social work. Provides content on differences and similarities in the experiences, needs, and beliefs of people distinguished by race, ethnicity, class, gender, sexual orientation, religion, physical or mental disability, or national origin.

SCWK3233 Juvenile Delinquency (Sp, Su, Fa)  

SCWK3333 Legal Aspects of Social Welfare (Fa)  
Study of a selected group of legal regulations encountered by the social worker, including the court system, legal rights of indigent persons and children, domestic relations, problems of the small wage earner, and health measures.  
Prerequisite: Junior standing.

SCWK3363 Problems of Child Welfare (Sp, Su, Fa)  
Study of the needs of deprived children with some attention to methods and standards of cultural competence and family-centered practice are emphasized.

SCWK339VH Honors Course (Irregular) (1-18)  
Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

SCWK405V Special Topics in Social Work (Ir regular) (1-6)  
Comprehensive study of various topics of importance in contemporary social welfare and social work practice.  
Prerequisite: Junior standing.

SCWK4073 Social Work Research and Technolo gy I (Sp, Fa)  
An overview of forms and sources of social work research including existing social data, techniques for collecting original social data, and techniques of organization, interpretation, and presentation of data. Students will also become proficient in the use of current technology for social work research and practice. Prerequisite: Three hours of mathematics and computer literacy.

SCWK4093 Human Behavior and the Social En vironment I (Sp, Fa) (Formerly SCWK 3093)  
Provides a conceptual framework for knowledge of human behavior and the social environment. Topics include: 
Social systems, life-course, assets, and resiliency-based approaches are presented. Special attention is given to the impact of discrimination and oppression on the ability to reach and maintain optimal health and well-being.  
Prerequisite: BIOL 1543, BIOL 1541L, PSYC 2003, SOCI 2133, SCWK 2133, and SCWK 3153.

SCWK4103 Human Behavior and the Social Environment II (Sp, Fa) (Formerly SCWK 3093)  
This course applies the basic framework for creating and organizing knowledge of human behavior and the social environment acquired in HSBE 1 to the understanding of family, group, organizational, community and institutional systems. Attention is given to discrimination, oppression, the impact of technology, and poverty at each system level. Prerequisite: SCWK 4093.

SCWK4143 Addiction and the Family (Sp)  
Introduction to the biophysical basis of chemical and behavioral compulsions with special focus on family impacts. Childhood development within addictive families is also examined. Social work intervention with substance abusing families is highlighted.

SCWK4153 Social Welfare Policy (Sp, Fa) (Formerly SCWK 3153) Describes and analyzes the policies and services rendered by local, state, regional, national, and international agencies as well as the policy implications for social work practice. Students prepare to advocate social policy changes designed to improve social conditions, promote social and economic justice, and to empower at-risk population.  
Prerequisite: PLSC 3003, SCWK 2133, and SCWK 3153.

SCWK4183 Elderly Citizen (Fa, Sp)  
Survey of theories of gerontology, service programs and unmet needs of the elderly population.  
(Same as Soc 3183)

SCWK4233 Seminar: Children and Family Services (Fa)  
An examination of selected current issues in the field of children and family services through discussion, individual study, and interdisciplinary approaches to the field.

SCWK4333 Social Work Practice I (Sp, Fa)  
This is the first in the sequence of practice courses introducing students to the generalist approach to micro social work. This
**Course Descriptions**

**SCWK4343 Social Work Practice II (Sp, Fa)** This is the second course in the social work practice sequence, emphasizing values, principles, and the connection of theory to practice. Pre- or Corequisite: SCWK 4093.

**SCWK4412 Field Seminar I (Sp, Su, Fa)** An integrative seminar to assist students in comparing their practice experiences, integrating knowledge acquired in the classroom, and expanding knowledge beyond the scope of the practicum setting. Corequisite: SCWK 4444 (social work majors only).

**SCWK4422 Field Seminar II (Sp, Su, Fa)** An integrative seminar to assist students in comparing their practice experiences, integrating knowledge acquired in the classroom, and expanding knowledge beyond the scope of the practicum setting. Corequisite: SCWK 4444 (social work majors only).

**SCWK4434 Social Work Internship I (Sp, Su, Fa)** May be repeated for up to 6 hours of independent study designed to meet the particular needs of experiential teaching methods. Pre- or Corequisite: SCWK 4103 and SCWK 4433.

**SCWK5003 Social Work Internship II (Sp, Su, Fa)** This course focuses on the development, revision, and impact of policy and practice in children, youth, and family services. The practicum experience will be examined. Students will interact with community agencies and utilize class assignments to advocate improvements in current policy and practice. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5163 Social Work Management, Administration and Supervision (Sp, Su)** This course develops advanced skills in management, administration, and supervision in social work organizations. Emphasis is placed on developing leadership skills in ethics, budgeting, finance, resource development, information management, evaluation, staff hiring, supervision and development, and the use of technology in leadership, management, and maintenance. Prerequisite: Graduate standing and SCWK 5003 or SCWK 5013.

**SCWK5173 Advanced Practice with Families and Couples (Fa)** The purpose of the course is to develop advanced understanding of the knowledge, skills and values needed to assess and intervene effectively with traditional and non-traditional families and couples. The course will examine social systems and life-cycle strengths approaches to understand how families and couples function. Students will design interventions. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5183 Advanced Practice with Individuals (Sp)** This course is designed to develop skills in social work practice on a micro level. Students learn to analyze and compare practice models. They gain skills in selecting a practice model and integrating multiple models based on client needs. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5193 Advanced Practice and Policy in Aging (Fa)** This course focuses on social work practice with, and policies for, older persons. Current, past, and future implications of aging for older persons across systems and the life course are explored. Emphasis is placed on the influences of personal, social, economic, and cultural diversity on the well-being of older persons. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5213 Advanced Practice and Policy in Mental Health (Sp)** This advanced course prepares students to identify mental disorders, plan intervention strategies, and provide micro level social work practice on a micro level. Students learn to analyze and compare practice models. They gain skills in selecting a practice model and integrating multiple models based on client needs. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5223 Advanced Practice in Health Care (Fa)** This course examines the delivery of health care services to individuals as planned in the life course and historical contexts. A multi-systems life-course conceptual framework is used. Prerequisite: Admission to the two-year or part-time MSW program.

**SCWK5243 Spiritually In Social Work (Sp, Fa)** This course prepares students to meet the particular needs of individual students. May be repeated for up to 6 hours of degree credit.

**SCWK5253 Spiritually In Social Work Practice (Su)** This course provides a framework of knowledge, values, skills and experiences for spiritually-sensitive social work practice. It prepares students to respond competently and ethically to diverse spiritual and religious perspectives by using a comparative, critically reflective approach to content. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5254 Social Work Research and Technology II (Su)** This course focuses on social work practice with, and policies for, older persons. Current, past, and future implications of aging for older persons across systems and the life course are explored. Emphasis is placed on the influences of personal, social, economic, and cultural diversity on the well-being of older persons. Prerequisite: SCWK 5003 or SCWK 5013.

**SCWK5256 Advanced Field Seminar I (Sp)** The first of two advanced field seminars required of all students in the MSW program. The purpose of the seminar is to allow students to integrate classroom content with experiences in the field, to develop peer supervision and consultation, and to learn from the experiences of other students in the field. Corequisite: SCWK 5434.

**SCWK5434 Foundation Field Internship (Sp)** This course is required of all graduate students entering the MSW program without an accredited undergraduate degree in social work. Minimum of 330 clock hours of agency-based professional social work practicum experience, supervised by a licensed MSW, is required. Corequisite: SCWK 5412. Prerequisite: SCWK 5003, SCWK 4333, SCWK 4073, SCWK 4903, and SCWK 4153.

**SCWK5442 Field Seminar III (Su)** This seminar is required of all graduate students entering the MSW program with advanced standing. Students integrate classroom content with experiences in the field, learn peer supervision and consultation, and learn from the experiences of other students in the field. Corequisite: SCWK 5444. Prerequisite: Admission to graduate program with advanced standing.

**SCWK6000L Thesis Laboratory (Sp, Su)** This laboratory is required for completion of the thesis, which is developed through components of the graduate Research & Technology sequence. Other courses in the graduate curriculum provide support for the conceptualization and development of the thesis. This laboratory is taken in conjunction with SCWK 6003L, SCWK 6073 and SCWK 6073.

**SCWK6003 Life Course Multi-System Social Work I (Fa)** In this first course of a two-semester sequence, students select a course of study that will provide services to clients, and address the problem through policy analysis. A review of literature regarding theory and practice, paradigm analysis, development of a practice model, and implementation of micro and mezzo interventions in the field are examined. Corequisite: SCWK 6444, SCWK 6442, and SCWK 5073.

**SCWK6013 Life Course Multi-System Social Work II (Sp)** In this second of a two-course sequence students provide services to social work clients. This course concentrates on life course and multi-system social work practice, and diversity perspectives. Issues across the life course are considered in addressing interventions through program development, a grant proposal submission, and implementation of macro interventions. Corequisite: SCWK 6073, SCWK 6454, and SCWK 6452. Prerequisite: SCWK 6003.

**SCWK6073 Social Work Research and Technology II (Sp)** This is the second of two courses required for Research and Technology II. Course content focuses on the advanced research skills necessary to complete the thesis. Students write a research report of their findings and submit it for publication. Corequisite: SCWK 6013 and SCWK 6000L. Prerequisite: SCWK 5073.

**SCWK6442 Advanced Field Seminar I (Fa)** The first of two advanced field seminars required of all students in the MSW program. The purpose of the seminar is to allow students to integrate classroom content with experiences in the field, to practice peer supervision and consultation, and to learn from the experiences of other students in the field.

**SCWK6444 Advanced Field Internship I (Fa)** This is the first of two advanced field internships required of all graduate students in the MSW program. A minimum of 330 clock hours of agency-based professional social work practicum experience, supervised by a licensed MSW, is required. Corequisite: SCWK 4842. Prerequisite: SCWK 5434 or SCWK 5444.

**SCWK6452 Advanced Field Seminar II (Sp)** This is the second of two advanced field seminars required of all students in the MSW program. A minimum of 330 clock hours of agency-based professional social work practicum experience, supervised by a licensed MSW, is required. Corequisite: SCWK 4652. Prerequisite: SCWK 6442.
Sociology (SOCI)

SOCI2013 General Sociology (Sp, Su, Fa) Group relations, culture, personality, social institutions, collective behavior, and social change.

SOCI2033 Social Problems (Sp, Su, Fa) Social disorganization, social strains, and deviant behavior, including consideration of war, poverty, ethnic relations, delinquency, drug addiction, mental illness, and population problems.

SOCI2033B Social Society (Odd Years, Sp) The social significance of population; population distribution and composition; population trends; and problems of the population. (Same as SOCI 3013)

SOCI3023 Criminology (Sp, Su, Fa) A survey of theories of crime causation, development of law, corrections, victimization, and police and policy. Prerequisite: SOCI 2013 or SOCI 2033. (Same as CMJS 3023)

SOCI3033A American Minorities (Fa) A sociological approach to the study of the US. (Same as SOCI 3043) Race, lifestyle, and health in the US. Focus on the psycho-social well-being of minority groups in America. Prerequisite: SOCI 2013.

SOCI3043 Contemporary Caribbean (Sp) The background, development, social organization, problems, and prospects of the contemporary people of the Caribbean islands and related territories.

SOCI3103 Religion and Society (Sp) Comparative study of religious science, beliefs, practitioners, and rituals. Examination of major social science issues in the study of religion. (Same as ANTH 3103)

SOCI3193 Race, Class, and Gender in America (Fa) A study of racial theories and research on social inequality in the United States. Course focuses on the three prominent lines of social division in this society: class, gender, and race. Prerequisite: SOCI 2013.

SOCI3203A A study of the origins, development, and practices related to corrections, including incarceration, community corrections and supervision, and intermediate sanctions. Prerequisite: CMJS 2003. (Same as CMJS 3203)

SOCI3223 Social Psychology (Fa) Current theories and research in social interaction, with emphasis on symbolic processes, role theory, theories of interpersonal behavior, socialization, and the relation of institutional structures to individual behavior. Prerequisite: SOCI 2013.

SOCI3253 Cultures of the South (Sp) Survey of the diverse ethnic and racial groups of the American South with special emphasis on social and cultural traits related to contemporary developments. (Same as ANTH 3253)

SOCI3301L Social Data and Analysis Laboratory (Sp, Fa) Applied statistics lab to accompany SOCI 3303. Corequisites: SOCI 3303, 3313, 3323.

SOCI3303 Social Data and Analysis (Sp, Fa) An introduction to descriptive and inferential statistics with special emphasis on sociological measurement and design. Prerequisite: SOCI 1013L. Prerequisite: SOCI 2013. (Same as STAT 3303)

SOCI3313 Social Research (Sp, Fa) Study and experience in current methods of social research with emphasis on sociological measurement and design. Prerequisite: SOCI 2013 and SOCI 3303.

SOCI3723 Deviant Behavior (Fa) Prevalence, theories, stereotypical responses, and treatment programs for behaviors such as anarchy, alcoholism, violence, and sexual deviancy that deviate from social norms.

SOCI399VH Honors Course (Sp, Fa) (1-3) Prerequisite: junior standing. May be repeated for up to 12 hours of degree credit.

SPAC300V Space & Planetary Sciences Research (Irregular) (1-3) This course covers research in space and planetary sciences performed by undergraduate students in the University. Prerequisite: Junior Standing and Instructor Consent. May be repeated for up to 6 hours of degree credit.

SPAC400VH Honor's Research in Space and Planetary Sciences (Irregular) (1-3) This course covers research in space and planetary sciences performed by honor's undergraduate students. Prerequisite: Junior standing and registration in an honors program. Corequisite: SPAC 4001, 4011. May be repeated for up to 3 hours of degree credit.

SPAC4011H Honor's Colloquium in SPAC (Sp, Su, Fa) Research seminar for honors students engaged in undergraduate research in the space and planetary sciences. Prerequisite: Junior standing and registration in an honors program. Corequisite: SPAC 400VH. May be repeated for up to 1 hours of degree credit.

SPAC500V Graduate Research (Irregular) (1-10) This course covers research performed by students in the graduate programs in space and planetary sciences: the MS and PhD in space and planetary sciences, and concentrations in space and planetary sciences for the PhD degrees in physics, biology, and mechanical engineering and the master's degrees in geology and geography.

SPAC5033 Planetary Systems (Odd years, Fa) The nature of the solar system and other planetary systems as deduced from observational and experimental studies. Structure and evolution of terrestrial and jovian planets and their satellites. Planetary atmospheres, magnetospheres, and the solar wind; planetary interiors. Theoretical and observed planetary protective systems and planetary prohibitions. Planetary atmospheres, origin and evolution of life and orbital mechanical and aeronautics. Intended for students enrolled in the graduate programs in space and planetary sciences.

SPAC5123 Internship (Irregular) Internship for graduate students in the space and planetary sciences graduate degree programs and concentrations in the graduate programs in physics, biology, geosciences and mechanical engineering. Students conduct a phase of their research, normally for one month, at a national or industrial laboratory in North America or overseas.

SPAC5123 Ethics Workshop (Irregular) A two-week workshop exploring the ethical issues of conducting research in the space and planetary sciences. Through a study of case histories, the course will explore both issues of academic and research honesty, such as the fabrication of data, and the ethical aspects of data collection and analysis. Emphasis is on practical implications of each perspective for policy and social control. Prerequisite: Graduate standing.

SPAC5123 Ethics Workshop (Irregular) A two-week workshop exploring the ethical issues of conducting research in the space and planetary sciences. Through a study of case histories, the course will explore both issues of academic and research honesty, such as the fabrication of data, and the ethical aspects of data collection and analysis. Emphasis is on practical implications of each perspective for policy and social control. Prerequisite: Graduate standing.

SPAC5213 Internship (Irregular) Internship for graduate students in the space and planetary sciences graduate degree programs and concentrations in the graduate programs in physics, biology, geosciences and mechanical engineering. Students conduct a phase of their research, normally for one month, at a national or industrial laboratory in North America or overseas.

SPAC5214 Communications Workshop (Irregular) A two-week workshop exploring the ethical issues of conducting research in the space and planetary sciences. Through a study of case histories, the course will explore both issues of academic and research honesty, such as the fabrication of data, and the ethical aspects of data collection and analysis. Emphasis is on practical implications of each perspective for policy and social control. Prerequisite: Graduate standing.
and Planetary Sciences (Irregular) A two-week work-shop addressing the ways in which technology generated during the past few decades is changing the way we live. Research is transferred to the private sector and used for wealth generation. Summer only.

SPAC5161 Seminar (Irregular) Seminars organized by the Arkansas-Oklahoma Center for Space and Planetary Sciences covering topics of current interest in the field for graduate students conducting research with a faculty member in the space and planetary sciences as part of their graduate degree programs or concentrations in the graduate programs in physics, biology, geology, geography and mechanical engineering.

SPAC5211 SPAC Proseminar (Sp, Su, Fa) Introduc- tory course consisting of discussions and case studies in ethics, professional communications and public policy in the administration of space and planetary sciences. Prerequisites: Admission to program or instructor consent.

SPAN3313 Planetary Atmospheres (Irregular) Origins of planetary atmospheres, structures of atmospheres, climate evolution, dynamics of atmospheres, levels in the atmosphere, upper atmosphere, escape of atmospheres, and comparative planetology of atmospheres. (Same as CHEG 5317)

SPAN5413 Planetary Geology (Irregular) Explorati- on of the solar system, geology and stratigraphy, meteorite impacts, planetary surfaces, crater, basaltic volca- nism, planetesimal chemistry, chemical evolution and origin of the Moon and planets.

SPAN5513 Biochemical Evolution (Irregular) Abiotic synthesis of biomolecules on Earth, the origin of cells; genetic information, origin of life on Earth and elsewhere; evolution of diversity, ecological niches, bacteria, archaea, and eukaryotic, novel metabolic reshaping of the environ- ment, life being reshaped by the environment, molecular data, and evolution of life.

SPAN5553 Astrobiology (Irregular) Discusses the scientific basis for the possible existence of extraterrestrial life. Includes origin and evolution of life on Earth, possibility of life elsewhere in the solar system (including Mars), and possibility of life on planets around other stars. Prerequisite: Instructor Consent.

SPAN5613 Astronautics (Fa) Study of spacecraft design and operations. Prerequisite: Admission to program or instructor consent.

SPAN500V Master’s Thesis (Irregular) (1-10)

SPAN700V Doctoral Dissertation (Irregular) (1-18)

Spanish (SPAN)

SPAN1003 Elementary Spanish I (Sp, Fa) Equivalent to 2003 and 2013. A rapid course designed to strengthen vocabulary and oral expression through extensive practice with cultural and authentic materials. Prerequisite: SPAN 2003 or equivalent.

SPAN1103 Intermediate Spanish I (Sp, Fa) Further development of reading skills and introduction to literary and cultural traditions. Prerequisite: SPAN 3003 or equivalent.

SPAN1213 Spanish for Heritage Speakers (Irregular) Advanced course for native Spanish speakers. A study of literary and cultural texts related to Hispanics in the U.S. A review of key language structures, and formal Spanish train- ing for academic and professional contexts. Native speakers can take this course in lieu of SPAN 3103 and SPAN 3003.

SPAN1313 Introduction to Literature (Sp, Fa) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

SPAN2003 Elementary Spanish I (Sp, Fa) For majors and advanced students covering the problematic areas of Spanish syntax and usage. Prerequisite: SPAN 3003 and SPAN 4003.

SPAN2033 Intensive Intermediate Spanish (Sp) Three hours per week of guided conversation (oral) and composition (written) practice for the post-intermediate student. Prerequisite: SPAN 3003.

SPAN2303 Intensive Spanish Reading I (Su) A rapid course in the fundamentals of Spanish for advanced students who do not desire to follow the usual curriculum in Spanish in the shortest possible time.

SPAN3103 Cultural Readings (Sp, Fa) A course designed to build vocabulary and to strengthen reading skills and oral expression. Students will read through extensive practice with cultural and authentic materials. Prerequisite: SPAN 2013 or equivalent.

SPAN3113 Introduction to Literature (Sp, Fa) Further development of reading skills and introduction to literary and cultural traditions. Prerequisite: (SPAN 3003 or SPAN 3103) or equivalent.

SPAN3123 Spanish for Heritage Speakers (Irregular) Advanced course for native Spanish speakers. A study of literary and cultural texts related to Hispanics in the U.S. A review of key language structures, and formal Spanish train- ing for academic and professional contexts. Native speakers can take this course in lieu of SPAN 3103 and SPAN 3003.

SPAN399VH Honors Spanish Course (Sp, Fa) (Irregular) Three hours per week of guided conversation (oral) and composition (written) practice for the post-intermediate student. Prerequisite: SPAN 3003 and SPAN 4003.

SPAN4103 Monuments of Spanish Literature I (Fa) Monuments of the major works of Spanish literature from El Cid through the 17th century. Prerequisite: SPAN 3113.

SPAN4113 Monuments of Spanish Literature II (Sp) Monuments of Spanish literature from the 18th century to the present. Prerequisite: SPAN 3113.

SPAN4133 History and Development of Spanish Literature I (Even years, Sp) Survey of Spanish-American literature from the Colonial period to mid-19th Century, including pre Hispanic Indigenous Literatures. Prerequisite: SPAN 3113.

SPAN4193 Survey of Spanish-American Literature II (Odd years, Sp) Survey of Spanish-American literature from the Modern period to the present, including U.S. Latino literature. Prerequisite: SPAN 3113.

SPAN4213 Spanish Civilization (Sp) A wide-ranging exploration of Spanish history and culture from the Middle Ages to the present. Prerequisite: SPAN 3113.

SPAN4223 Spanish American Civilization (Fa) Prerequisite: SPAN 3113.

SPAN4243 Language and Culture in the Hispanic United States (Sp, Su, Fa) An exploration of the his- tory and culture, and art of the major Hispanic groups in the United States. Focus on contemporary attitudes and issues. Prerequisite: SPAN 3113.

SPAN4253 Latin American Cinema and Society (Irregular) A study of Latin American cinema, society, and cultural production. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

SPAN4275 Special Investigations (Irregular) (1-6) Prerequisite: SPAN 3113. May be repeated for up to 6 hours of degree credit.

SPAN4333 Business Spanish I (Sp) Enhances ability to relate to Spanish-speaking business environments by providing a solid foundation in vocabulary and discourse related to fundamental business concepts such as: financial structure, company management, banking and accounting, capital investment, personnel and office systems, production of goods and services, marketing, finance, and import-export. Prerequisite: SPAN 3003.

SPAN4433 Business Spanish II (Sp) Reinforces concepts and vocabulary covered in SPAN 4333 and further enhances ability to function in a Spanish-speaking environment by providing instruction in the preparation of written documents such as form letters, communiques, letters of credit, contracts, memora, letters of recommendation, dossiers, and order forms. Prerequisite: SPAN 4333.

SPAN4553 Latin America Today (Odd years, Sp) An exploration of recent and contemporary issues in Latin American culture and society, including social classes, ethnicity, urbanization, family, education, and religion, as well as popular culture and artistic movements. Prerequisite: SPAN 3113.

SPAN470V Special Topics (Irregular) (1-3) May be offered in a topic not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

SPAN475V Special Investigations (Sp, Fa) (1-6) A study of native oral narratives, literary texts and other writing forms in the Americas, from ancient times to the present, including the Andean Khipus, Mesoamerican Codices, and Amazonian mythic narratives. Prerequisite: SPAN 3113. (Same as SPAN 5883)

SPAN5103 Medieval Spanish Literature (Irregular) From the ‘Jarchas’ to the Celestina.

SPAN5233 Golden Age Novel (Irregular) Major works of Spanish prose fiction from the 16th and 17th centu- ries, with close reading of major works.

SPAN5253 Colonial Literature and Culture (Sp, Su, Fa) An introductory course to the history, culture and literature of colonial Spanish America from 1492 until 1810. The course will cover representative colonial and indigenous literature and their contexts including pre-Hispanic culture, Baroque, and the travel literature of the Eighteenth Century. The course will be taught in Spanish.

SPAN5273 Nineteenth Century Survey (Irregular) From Neoclassicism to the Natural Theatre.

SPAN5283 Nineteenth Century Drama and Poetry (Irregular) From Romanticism to the Generation of 1898.

SPAN5343 Advanced Survey of Spanish Literature Since 1898 (Irregular) Intensive survey of the literature of Spain from the Generation of 1898 to the present. Prerequisite: Graduate standing.

SPAN5383 Twentieth Century Spanish American Poetry (Irregular) From the development of modernism to the present day.

SPAN5393 19th Century Spanish American Literature (Sp, Su, Fa) Study of representative literary works from Independence (1810) to 1900. The course covers Neoclassicism, Romanticism, Realism/Naturalism, and Modernism and the role of literature in the nation-building process. The course will be taught in Spanish.

SPAN5393 Spanish America (Sp, Su, Fa) Historical examination of the theatre in Spanish America, with close analysis particularly of representative works and movements in the 20th century.

SPAN5433 Cervantes, Don Quijote (Irregular) A close reading of Spain’s greatest literary masterpiece.

SPAN5453 Cinema and Literature (Irregular) This course examines several Latin American and Spanish texts and their film adaptations as well as the main film making trends in the Hispanic world.

SPAN5463 20th Century Spanish American Literature (Sp, Su, Fa) Critical study of major movements and outstanding and representative works in 20th century prose and poetry, from the Mexican Revolution and the avant-garde to the contemporary boom and post-boom.

SPAN5703 Special Topics (Irregular) May be offered in a topic not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

SPAN575V Special Investigations (Irregular) (1-6) Prerequisite: SPAN 3113 and instructor consent. May be repeated for up to 6 hours of degree credit.

SPAN5883 Indigenous Literatures (Irregular) A study of native oral narratives, literary texts and other writing forms in the Americas, from ancient times to the present, including the Andean Khipus, Mesoamerican Codices, and Amazonian mythic narratives. (Same as SPAN 4883)
Swahili (SWAH)

SWAH1003 Elementary Swahili I (Fa) Stresses correct pronunciation, aural comprehension, simple speaking ability, and leads to mastery of basic grammar and limited reading ability.

SWAH1013 Elementary Swahili II Continues to stress correct pronunciation, aural comprehension, and speaking ability and continues to build mastery of basic grammar and limited reading ability. Prerequisite: SWAH 1003.

SWAH1103 Intermediate Swahili I (Irregular) Leads to greater facility in spoken language and develops more advanced reading and writing skills. Prerequisite: SWAH 1003 and SWAH 1013.

SWAH2116 Intermediate Swahili II (Irregular) Equiva- lent to 2003 and 2013. Leads to greater facility in speaking, comprehension, reading, and writing. Prerequisite: SWAH 1103 or SWAH 1116 and 2003.

Technology Education (TEED)

TEED103 The Nature of Technology (Sp) Fundamentals of study of the nature of technology and its relationship to emerging technologies, and technological literacy throughout history.

TEED201L Drafting Technology I Laboratory (Sp, Su, Fa) Laboratory exercises in principles and practices of drafting technology I. Corequisite: TEED 1203.

TEED2103 Drafting Technology I (Fa) Use and care of instruments; lettering, sketching, applied geometry, pictorial drawing, and orthographic projection. Introduction to computer-aided drafting. Corequisite: TEED 1201L.

TEED1503 Introduction to Technology Education (Sp, Su, Fa) Surveying and interpreting the origin, principles, and core values of technology education and its relationship to other educational programs.

TEED1603 Industrial Safety (Irregular) Study of accidents, causes, the cost of accidents, appraising safety performance, safety sources, maintaining a safe environment, and organization and operation of school laboratories and industrial accident prevention programs.

TEED2103 Technology and Society (Fa) An examination of the complex relationships between society, values, and technological development in developed and under-developed nations.

TEED2213 Fundamentals of Production (Irregular) Introduction to the design, teaching, and assessment of curriculum related to the technological fields of construction and manufacturing.

TEED2423 Industrial & Technological Mainte- nance (Irregular) Introduction to maintenance procedures, maintenance frameworks, machine repair, machine maintenance, and machine failure. Emphasis is placed on the integration of maintenance and management of industrial systems.

TEED3103 Technology Research, Experimenta- tion, and Trouble-shooting (Irregular) Foundational concepts of engineering and design, including analysis and use of technology problem solving tools of research, experimentation and development. Prerequisite: TEED 1100.

TEED3203 Information and Communication Systems (Irregular) Conceptual foundations and methodologies for teaching information and communications technology at the secondary level. Prerequisites: TEED 1103 and TEED 2100.

TEED3303 Power, Energy and Transportation (Irregular) Conceptual foundations and methodologies for teaching electrical and transportation technologies at the secondary level. Prerequisites: TEED 1103 and TEED 2100.

TEED3323 Construction Technologies (Irregular) Fundamentals of construction technology with an emphasis on the tools, techniques and practices used in the technical area. Additional concentration on appropriate techniques for teaching construction technology.

TEED3433 Electricity & Electronic Technology (Irregular) Fundamentals of the electricity and electronics technical areas. Particular emphasis placed on using technologies for the industry (PLC's, relays, control systems, switching devices, etc.) to teach technology education.

TEED3513 Elementary Technology Education (Irregular) An introductory course in technology education focusing on the development and introduction of technology and engineering-based activity in the elementary and middle-levels.

TEED3633 Plastics Technology (Irregular) Tools, materials, and processes involved in the use and fabrication of plastics related to modern plastics industry.

TEED4103 Engineering Design for Technol- ogy Education Capstone (Irregular) Analysis of engineering design, focus on design processes, physical and computer modeling, and materials processing. Prerequisites: TEED 1103 and TEED 3103.

TEED4523 Advanced Technology Education (Irregular) Provides the student with the expertise to develop and update a typical technology education program in order to keep the program current with changes in state and national trends in the discipline.

TLOG459V Industrial Internship (Sp, Su, Fa) (1-12) In an actual industrial setting, the student will study managerial functions, organizational practices, product development, production fabrication, work schedules, industrial relations, and related activities of American industrial society. May be repeated for up to 15 hours of degree credit.

TLOG5363 Purchasing and Inventory Systems (Sp) Management of the purchasing function, including or- ganization, procedures, supplier selection and development, quality control, price determination, and methods of inventory control. Prerequisite: TLOG 3613.

TLOG4653 Transportation Carrier Management (Fa) Reviews special management techniques and analytical methodologies for solving problems associated with transportation companies. Prerequisite: TLOG 3443.

TLOG4643 International Transportation and Lo- gistics (Sp) Logistics activities in international business with special emphasis on transportation, global sourcing, customs issues, governmental influence, facility location in global environment, and import-export opportunities. Special emphasis is placed on current events and their effect on the logistics and transportation activities of businesses. Prerequisite: TLOG 3443. Pre- or Corequisite: TLOG 4443. Prerequisite: TLOG 3613.

TLOG4653 Transportation and Logistics Strategy (Sp) Design and management of transportation and logistics systems for firms of varying types and different market conditions. This capstone course relies heavily on computer assisted cases and lectures from visiting transportation and logistics executives. Prerequisite: TLOG 3443 and TLOG 3613.

TLOG466V Independent Study in Transportation and Logistics (Sp, Su, Fa) (1-3) Permits students to explore selected topics in transportation/logistics.

TLOG564V Special Topics in Logistics (Irregular) (1-3) Explores current events, concepts, and new developments in the field of logistics and transportation. Topics are selected by the Marketing and Transportation faculty for each semester the course is offered. May be repeated for up to 3 hours of degree credit.

TLOG5653 Retail and Consumer Products Sup- ply Chain Management (Sp) Supply chain management is the integration of key business processes from end user through suppliers. The focus of this course is on the core processes that must be linked together within the supply chain with an emphasis on logistics processes. Foundational topics in logistics and supply chain management will be covered.

TLOG5654 Logistics Transportation Strategies in the Supply Chain (Fa) This course focuses on the setting of objectives and the design of optimal transportation strategy and alternative means of implementing transportation strategies within different types of organizations.

TLOG5655 Global Logistics and Supply Manage- ment (Irregular) This course examines the planning and management of logistics, but emphasizes supplier selection and development, logistics options, strategic alliances, and performance measurement. Emphasis is placed on the integration of purchasing, materials management, and multi-firm logistics planning. International logistics is also addressed within each of these topics. Prerequisite: TLOG 5633.

TLOG5663 Supply Chain Management (Fa) This course examines the planning and management of supply chain activities including supply management, demand management, quick response, vendor managed inventory, logistics options, strategic alliances, and performance measurement. Emphasis is placed on the integration of
U A Clinton School (UACS)

UACS501V Special Topics in Public Service (Irregular) (1-3) - Designed to cover specialized topics not usually presented in depth in regular courses. May be repeated for up to 6 hours of degree credit.

UACS502V Advanced Problems in Public Service (Irregular) (1-3) - Provides an opportunity for individual study.

UACS501 Ethical and Legal Dimensions of Public Service (Irregular) - This course will provide an overview of the primary ethical principles and legal concepts that guide difficult decisions in the public realm. Traditional academic study of ethical and legal theory will be combined with practical approaches to problem solving. Students will explore the ethical and legal implications of political, social, and economic forces through case studies of current issues. Students will construct cases that are relevant to their own fields and present them to the class, identifying ethical and legal constraints on decision-making and implementation.

UACS5303 Communication Processes and Conflict Transformation (Irregular) - The course is designed to increase the student's personal communication effectiveness as a leader and public servant, and to enable students to understand the application of communication processes in the public arena.

UACS5331 Dynamics of Social Change (Sp, Fa) - The course deals with fundamental concepts of social change in a democratic society, and how these interact with and are affected by economic and political forces. A critical examination of the various justifications for promoting or discouraging social change will be considered.

UACS5333 Leadership in Public Service (Sp, Fa) - This course is designed to increase students' knowledge of leadership concepts and best practices, provide opportunities and experiences that improve leadership skills and techniques, and enhance capabilities in organizational management. Students will assess their leadership strengths and weaknesses, as well as develop an action plan to match their capabilities with future opportunities, in order to help in building diverse teams, in initiating/Managing change, in addressing uncertainty, and in leading non-governmental organizations. At the end of the course, students should be able to design leadership strategies to successfully address a spectrum of issues in public service and in promoting the community good.

UACS5333 Analysis for Decision Making in Public Service (Irregular) - This course is intended to provide students with analytical tools that enhance their skills in diagnosing problems and formulating solutions within organizations and communities. Instruction will focus on evaluating community assets as a balance to assessing community need. Underlying values of social justice and collaborative problem-solving provide a benchmark for these activities. Students, working in teams, will be challenged to apply their skills to cases related to affordable housing and homelessness.

Vocational and Adult Education (VAED)

VAED1003 Self-Directed Learning Seminar (Sp, Fa) - This course is designed to take students beyond orientation into the realm of taking responsibility for their academic decisions and learning. The focus is on the whole student and the whole college experience.

VAED1011 Career Exploration (Sp) - This course examines career exploration strategies using commonly accepted theory in career development. The focus is on decision-making principles, understanding personal characteristics, exploring academic majors, researching occupations and creating a career plan.

VAED3401 Career Planning and Professional Development for Seniors (Sp, Fa) - This course examines the career planning process of self-assessment, exploring career opportunities in the world of work and learning about job search strategies that result in the development of a career action plan. Prerequisite: VAED 9052; TLOG 5633.

VAED9692 Directed Field Experience (Irregular) (1-18) - Teaching and supervision in secondary or post-secondary schools or work in business or industry under guidance. For students who desire or need directed experience. VAED 9699 Seminar (Irregular) (1-18) - May be repeated for up to 18 hours of degree credit.

Walton College of Business (WCOB)

WCOB1012 Legal Environment of Business (Sp, Fa) - Introduction to the legal and environmental environment in which businesses operate. Topics covered in this course include: foundations of the American legal system, regulatory environment, torts, criminal law, laws affecting contracts and property, employment law, and forms of doing business. (Same as BLAW 2013)

WCOB1012 Legal Environment of Business (Sp, Fa) - Introduction to the legal and ethical environment in which businesses operate. The course covers topics such as: foundations of the American legal system, regulatory environment, torts, criminal law, laws affecting contracts and property, employment law, and forms of doing business. (Same as BLAW 2013)

WCOB1023 Business Foundations (Sp, Su, Fa) - Presents an integrated view of business organizations by studying the business processes that are common to most businesses, including marketing, human resources, purchasing, production, and sales. This course also develops the accounting model that captures information about business processes and reports results through formal financial statements. Prerequisite: COMM 1313 with grade of “C” or better and WCOB 1120.

WCOB1033 Data Analysis and Interpretation (Sp, Su, Fa) - This is an introductory level course covering topics involving fundamental statistical concepts and methodology, research design and hypothesis testing, as well as measuring and predicting relationships. The course should enable the students to develop an understanding regarding the application and interpretation of basic data analysis techniques with an emphasis on statistical applications. Prerequisite: WCOB 1120 and (MATH 2053 with grade of “C” or better or MATH 2504 with a grade of “C” or better).

WCOB1111 Business Connection (Fa) - Development of personal development skills, including time management; stress management and academic planning, necessary for success; introduction to business career options and paths; and current trends in business.

WCOB1120 Computer Competency Requirement (Sp, Su, Fa) - Students entering the Walton College are expected to possess basic competencies in MS Windows, Word, Excel, PowerPoint, and the internet. Students need to pass a competency test. Deficiencies may be remedied through appropriate self-paced, computer-based instruction.

WCOB2013 Markets and Consumers (Sp, Su, Fa) - Key decisions required to understand the existence of markets and how buyers within those markets may be accessed profitably. Key concepts include an overview of competitive markets, buyer behavior, developing new markets and products, promotion and distribution channels, pricing and profitability concepts, the sales and collections process, and strategic planning. Prerequisite: WCOB 1023, WCOB 1033, ECON 2023, and WCOB 1012–each with a grade of “C” or better.

WCOB2023 Production and Delivery of Goods and Services (Sp, Su, Fa) - This course is designed to provide students with a broad understanding of the production and delivery of goods/services. The course focuses on concepts and methodologies for managing the flow of material and information throughout the production and delivery of goods/services. Prerequisite: WCOB 2012, WCOB 1033, ECON 2023, and WCOB 1012–each with a grade of “C” or better.

WCOB2033 Acquiring and Managing Human Capital (Sp, Su, Fa) - Study of the process of acquiring and managing human resources, focusing on the organizational behavior, legal, economic, and technical issues concerned with business decisions about acquiring, motivating, and retaining employees; emphasis given to the development, implementation, and assessment of policies and practices consistent with legal, social, human resource, and economic dynamics. Prerequisite: WCOB 1023, WCOB 1033, ECON 2023, and WCOB 1012–each with a grade of “C” or better.

WCOB2401 Acquiring and Managing Financial Resources (Sp, Su, Fa) - An overview of the primary ethical principles and legal concepts related to the acquisition and management of capital resources, including decisions regarding what to acquire, how to finance the acquisition, and issues related to the accounting for those capital resources. The identification of key decisions leads to decision models and the identification of information needs. Prerequisite: WCOB 1023, WCOB 1033, ECON 2023, and WCOB 1012–each with a grade of “C” or better.

WCOB3003H Honors College Colloquium (Sp, Fa) - An inter-disciplinary course exploring events, concepts, and/or new developments in the field of business administration. Prerequisite: Junior or senior standing. May be repeated for up to 6 hours of degree credit.

WCOB300V Study Abroad (Sp, Su, Fa) (1-15) - Open to undergraduate students studying abroad in officially sanctioned programs. May be repeated for up to 24 hours of degree credit.

WCOB3016 Business Strategy and Planning (Sp, Fa) - Integrative study of the managerial decisions; introduces students to understanding of business, strategies and decision making and implemented; uses a combination of theoretical and experiential approaches to design business plans for key decisions, implementing these decisions, and monitoring their effects. Prerequisite: A business student must complete the pre-business requirements before enrolling for this course. WCOB 2013, WCOB 2023, WCOB 2033, and WCOB 2043 must be completed with a grade of “C” or better. This course is restricted to Walton College students.

WCOB3033 The African American Experience in Business (Irregular) - This course is designed to provide the student with a comprehensive and critical analysis of the history of the African American experience as a member of the business sector of the United States economics. The course will review information that includes and demonstrates and analyzes economic trends over time, with an emphasis on African American contributions to the economic environment. The course will cover the issues of economic, political, and social justice and legal rights as they relate to the economic experience of African Americans.

WCOB310V Cooperative Education (Sp, Su, Fa) (1-6) - Co-op allows students to earn one or two hours of credit per semester for work related to their major. Accumulated credit may not exceed six hours. eligibility requires: 1) junior standing in the college, 2) completion of the pre-business core and 3) the prescribed GPA. See catalog for details. Prerequisite: Junior standing and completion of pre-business core. May be repeated for up to 6 hours of degree credit.

WCOB410V Special Topics in Business (Irregular) (1-6) - Special business topics of an interdisciplinary nature. May be repeated for up to 6 hours of degree credit. WCOB 4113 ERP Fundamentals - This course provides an introduction to enterprise resource planning systems. Students should gain an understanding of the scope of these integrated systems that reach across organizational boundaries and control and analyze how a company does business. Implementation issues are covered, including the importance of change management. Prerequisite: WCOB 2023 and WCOB 2043 each with a grade of “C” or better.

WCOB4223 ERP Configuration and Implementation (Fa) - The process of configuring and implementing an enterprise resource planning system. Business process analysis and integration. Students will develop a company and set up several modules in SAP R/3 for use. Development and understanding of how the business processes work and integrate. Prerequisite: WCOB 4213 with a grade of “C” or better.

WCOB445V Service Learning Practicum (Sp, Fa) (1-2) - Through participation in this practicum, students learn while providing services that benefit the community. The goal is for students to learn, practice, and teach the principles of free enterprise. The students assess community needs and determine how to go about providing services to those in need. The course content is based on student input and requirements.

WCOB510V Special Topics in Business (Irregular) - Provides Honors Students with an opportunity to explore a business topic in depth through an independent research project. Prerequisite: Good standing in the Walton College Honors Program.

WCOB5800V Study Abroad (Sp, Su) (1-6) - Open to graduate students studying abroad in officially sanctioned programs. May be repeated for up to 12 hours of degree credit.

WCOB5810V Special Topics in Business (Irregular) - Provides Honors Students with an opportunity to explore a business topic in depth through an independent research project. Prerequisite: Good standing in the Walton College Honors Program.

WCOB5800V Study Abroad (Sp, Su) (1-6) - Open to graduate students studying abroad in officially sanctioned programs. May be repeated for up to 12 hours of degree credit.

WCOB510V Special Topics in Business (Irregular) - Provides Honors Students with an opportunity to explore a business topic in depth through an independent research project. Prerequisite: Good standing in the Walton College Honors Program.
Course Descriptions

Workforce Development (WDED)

WDED5213 Foundations of Adult Education (Sp, Fa) History, philosophy, and development in adult education and related fields. Topics include: philosophy, theory, and methodology in adult education; introduction to the profession of adult education; legal and ethical issues; and evaluation. Prerequisite: Graduate standing.

WCOB5223 ERP Configuration and Implementation (Sp) This course introduces the analysis process in organizations. The course teaches development of organization activities that are necessary in the workplace. Current issues on globalization and diversity are explored. Policy issues pertaining to diversity and globalization are examined. Prerequisite: Graduate standing.

WDED698V Practicum (Sp, Su, Fa) (1-6) Practicum is a doctoral level course designed as an introduction to program evaluation in workforce leadership and human resource development. Emphasis is on (a) systems thinking applied to program evaluation, (b) organizational and performance improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDED6533 Adult Literacy (Su) This course is based upon theoretical models of adult learning and teaching methods. The course addresses the historical background of literacy programs, evolution of teaching techniques, social and economic context, needs assessment, and techniques of teaching adult literacy in various settings, including public schools, vocational and technical schools, technical institutes, community colleges, organizations, and the workplace.

WDED6543 Program Planning (Sp) Emphasis is given to understanding the theoretical foundation upon which the programming process is predicated, developing a theoretical mode, and acquiring the conceptual tools necessary for analyzing the programming process in any workforce development education organization.

WDED6553 Program Evaluation (Su) This course is a doctoral level course designed as an introduction to program evaluation in workforce leadership and human resource development. Emphasis is on (a) systems thinking applied to program evaluation, (b) organizational and performance improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDEL6563 Ethical and Legal Issues (Fa) Ethical and legal issues are covered, including the importance of change and improvement in the workplace. Application of instructional and curriculum development and evaluation, and techniques of teaching adult literacy in various settings, including public schools, vocational and technical schools, technical institutes, community colleges, organizations, and the workplace.

WDED6573 Education and Entrepreneurship (Sp) The emphasis is on the need to appreciate the role of entrepreneurship in workforce development. Emphasis is on (a) systems thinking applied to program evaluation, (b) organizational and performance improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDED6583 Multiple Intelligences (Fa) This course applies the theory of multiple intelligences to workforce development.

WDED700V Doctoral Dissertation (Sp, Su, Fa) (1-3) Prerequisite: Candidacy. Directed toward people who are most likely to complete a doctoral dissertation. May be repeated for up to 3 hours of degree credit. Emphasis is given to understanding the theoretical foundation upon which the programming process is predicated, developing a theoretical mode, and acquiring the conceptual tools necessary for analyzing the programming process in any workforce development education organization.

WDLT1113 World Literature I (Sp, Su, Fa) An introduction to literature from the beginning of civilization to about 1650. (Same as WILT 1113C) Emphasis is on the need to appreciate the role of entrepreneurship in workforce development. Emphasis is on (a) systems thinking applied to program evaluation, (b) organizational and performance improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDLT1113C World Literature I (Irregular) An introduction to literature from the beginning of civilization to about 1650. Corequisite: Drill component. (Same as WILT 1113)

WILT1123 World Literature II (Sp, Su, Fa) An introduction to literature from 1650 to the present. Prerequisite: WILT 1113.

WILT2323 Greek and Roman Mythology (Irregular) A study of the stories, figures, and motifs in the mythology of Greece and Rome. Prerequisite: ENGL 1013 and ENGL 1015.

WILT3623 The Bible as Literature (Regular) The several translations of the Bible; its qualities as great literature; its influence upon literature in English; types of literary forms. (Same as ENGL 3623)

WILT3983 Special Studies (Irregular) Covers a topic not usually presented in depth in regular courses. Not an independent study. This course may be repeated Prerequisite: Junior standing. May be repeated for up to 6 hours of credit.

WILT4123 Survey of Russian Literature from Its Beginning to the 1917 Revolution (Regular) The instructor will discuss the historical and cultural backgrounds

lary (1-3) Special business topics of an interdisciplinary nature. May be repeated for up to 6 hours of degree credit. WCOB5223 ERP Fundamentals (Sp) An introduction to enterprise resource planning systems. Students should gain an understanding of the scope of these integrated systems that reach across organizational boundaries and can change the way businesses operate. Implementation issues are covered, including the importance of change management. Prerequisite: Graduate standing.

WDBC5223 Developing Human Resources (Fa) This course is designed to build a knowledge base of human resource management in organizations. The course teaches development of organization activities that are necessary in the workplace. Current issues on globalization and diversity are explored. Policy issues pertaining to diversity and globalization are examined. Prerequisite: Graduate standing.

WDED5333 Adult Literacy (Su) This course is designed to build a knowledge base of human resource management in organizations. The course teaches development of organization activities that are necessary in the workplace. Current issues on globalization and diversity are explored. Policy issues pertaining to diversity and globalization are examined. Prerequisite: Graduate standing.

WDED6573 Education and Entrepreneurship (Sp) The emphasis is on the need to appreciate the role of entrepreneurship in workforce development. Emphasis is on (a) systems thinking applied to program evaluation, (b) organizational and performance improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDED6583 Multiple Intelligences (Fa) This course applies the theory of multiple intelligences to workforce development.

WDLT1113 World Literature I (Sp, Su, Fa) An introduction to literature from the beginning of civilization to about 1650. (Same as WILT 1113C) Emphasis is on the need to appreciate the role of entrepreneurship in workforce development. Emphasis is on (a) systems thinking applied to program evaluation, (b) organizational and performance improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDLT1113C World Literature I (Irregular) An introduction to literature from the beginning of civilization to about 1650. Corequisite: Drill component. (Same as WILT 1113)

WILT1123 World Literature II (Sp, Su, Fa) An introduction to literature from 1650 to the present. Prerequisite: WILT 1113.

WILT2323 Greek and Roman Mythology (Irregular) A study of the stories, figures, and motifs in the mythology of Greece and Rome. Prerequisite: ENGL 1013 and ENGL 1015.

WILT3623 The Bible as Literature (Regular) The several translations of the Bible; its qualities as great literature; its influence upon literature in English; types of literary forms. (Same as ENGL 3623)

WILT3983 Special Studies (Irregular) Covers a topic not usually presented in depth in regular courses. Not an independent study. This course may be repeated Prerequisite: Junior standing. May be repeated for up to 6 hours of credit.

WILT4123 Survey of Russian Literature from Its Beginning to the 1917 Revolution (Regular) The instructor will discuss the historical and cultural backgrounds
while focusing on major writers and will deal with literature as an outlet for social criticism. There will be textual analysis. It will be taught in English. (Same as RUSS 4123)

WLIT4133 Survey of Russian Literature Since the 1917 Revolution (Irregular) The instructor will discuss the historical and cultural backgrounds while focusing on major writers and will deal with literature as an outlet for social criticism. There will be textual analysis. It will be taught in English with readings in English. (Same as RUSS 4133)

WLIT4913 Literary Reflections of the Holocaust (Irregular) Drawing on fiction, poetry, autobiography, and drama from works written originally in French, Polish, German, Dutch, English, and Yiddish, this course introduces students to the Holocaust through literature. Deals with the adequacy of imaginative literature in the face of atrocity, the comparative effectiveness of fiction versus autobiography, and the dangers of exploitation and trivialization. (Same as HUMN 4913)

WLIT4923 Modern World Drama (Irregular) Drama from Ibsen to the 1930s. (Same as ENGL 4923)

WLIT4963 Contemporary World Drama (Irregular) Drama since the 1930s. (Same as ENGL 4963)

WLIT4993 African Literature (Irregular) A study of modern African fiction, drama, poetry, and film from various parts of Africa in their cultural context. Works are in English or English translation. (Same as ENGL 4993)

WLIT5193 Introduction to Comparative Literature (Irregular) Literary theory, genres, movements, and influences. Prerequisite: WLIT 1113. (Same as ENGL 5193)

WLIT5233 Form and Theory of Translation (Irregular) An examination of the principal challenges that confront translators of literature, including the recreation of style, dialect, ambiguities, and formal poetry; vertical translation; translation where multiple manuscripts exist; and the question of how literal a translation should be. (Same as ENGL 5233)

WLIT5353 The Renaissance (Irregular) Italian forms and writers of the late 15th and 16th centuries and the spread of the Renaissance tradition in Spain, Portugal, France, and Northern Europe up to 1660.

WLIT5363 The Bible as Literature (Irregular) The several translations of the Bible; its qualities as great literature; its influence upon literature in English; types of literary forms. (Same as ENGL 5623)

WLIT5575 Special Investigations on World Literatures and Cultures (Irregular) (1-6) Independent study of a special topic in world literatures and cultures. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

WLIT600V Master’s Thesis (Sp, Su, Fa) (1-6)

WLIT603V Special Studies in Comparative Literature (Irregular) (1-6) May be repeated for up to 6 hours of degree credit.

WLIT6703 Psychoanalysis and Culture (Irregular) Readings of key texts in psychoanalytic thought and cultural criticism including Freud, Lacan, Kristeva, Certeau, Zizek, and others. Selections of psychoanalytic approaches to literature, film and gender and trauma studies.

WLIT6803 Postcolonial Theory and Subaltern Studies (Irregular) Seminar examining the geopolitical (imperial, colonial and national) implications of knowledge and culture. Selected readings of early postcolonial texts by Cesaire, Fanon, and Fernandez Retamar, as well as more recent texts by Said, Spivak, Bhabha, Mignolo, Beverly and Chakrabarty among others. May be repeated for up to 6 hours of degree credit.

WLIT690V Seminar (Irregular) (1-6) May be repeated for up to 6 hours of degree credit.

WLIT700V Doctoral Dissertation (Sp, Su, Fa) (1-18)
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Errata

Page 280 – A note about a College of Engineering program that allows mechanical engineering students to take classes at the University of Arkansas at Fort Smith was removed from this online edition of the catalog because of an error in the content. An Editor’s Note was added.