2010

University of Arkansas Catalog of Studies, 2009-2010

University of Arkansas, Fayetteville

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International Admissions, 747 W. Dickson St. ............... 575-6246

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Correspondence Courses
Independent Study
Center for Continuing Education ................................. 575-3647
Toll-free ...........................................................................1-800-638-1217

Deans’ Offices
Honors College ................................................................. 575-7678
418 Administration Building
Dale Bumpers College of Agricultural, Food and Life Sciences
E-108 Agricultural, Food and Life Sciences Building, 575-2252
School of Architecture
120 Vol Walker Hall .......................................................... 575-4945
J. William Fulbright College of Arts & Sciences
525 Old Main ..................................................................... 575-4801
Sam M. Walton College of Business
301 Business Building ..................................................... 575-5949
College of Education and Health Professions
324 Graduate Education Bldg. ......................................... 575-3208
College of Engineering
4183 Bell Engineering Center ........................................... 575-3051
Graduate School
119 Ozark Hall.................................................................. 575-4401
School of Law
110 Waterman Hall ......................................................... 575-5601

Fee Payments
Student Accounts
101 Silas H. Hunt Hall ..................................................... 575-5651

Financial and Scholarships
Office of Financial Aid
114 Silas H. Hunt Hall ..................................................... 575-3806
Office of Academic Scholarships
101 Old Main ..................................................................... 575-4464

Greek Life
Arkansas Union A687 ....................................................... 575-5001

Honors Programs
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Dale Bumpers College of Agricultural, Food and Life Sciences
ADMM 418
Dean’s Office AFLS E-108 ............................................... 575-2252
Fay Jones School of Architecture
120 Walker Hall ............................................................... 575-4945
J. William Fulbright College of Arts & Sciences
517 Old Main ..................................................................... 575-2509
Walton College of Business
WCOB 328 ......................................................................... 575-4622
College of Education and Health Professions
Office of the Associate Dean, GRAD 317 ......................... 575-4203
College of Engineering
BELL 3189 ......................................................................... 575-7381

Housing
University Housing, 900 Hotz Hall ................................. 575-3951

International Students
International Admissions, 747 W. Dickson St. ............... 575-6246
International Students and Scholars, 104 Holcombe Hall... 575-5003

New Student Orientation
Arkansas Union A687 ....................................................... 575-4200

Registration
Office of the Registrar, 146 Silas H. Hunt Hall ............... 575-5451

ROTC
Air Force ROTC, 319 Memorial Hall ............................. 575-3651
Army ROTC, 207 Military Science Building ..................... 575-4251

Student Affairs
Vice Chancellor for Student Affairs
325 Administration Building ........................................... 575-5007
Dean of Students
325 Administration Building ........................................... 575-5004

Testing (ACT, CLEP, LSAT, GRE, etc.)
Testing Services, 730 Hotz Hall ....................................... 575-3948

Toll-Free Number ..............................................................1-800-377-8632
The following offices may be reached by dialing this toll-free number between 8 a.m. and 4:30 p.m. each weekday:
Office of Admissions (undergraduate)
Office of Scholarships and Financial Aid
University Housing
New Student Orientation

Transcripts, Academic Records
Office of the Registrar
146 Silas H. Hunt Hall ..................................................... 575-5451

University Switchboard ..................................................... 575-2000

University of Arkansas
Mailing Address:
Use an office and building address above, plus:
1 University of Arkansas
Fayetteville, AR 72701
Telephone Area Code: 479

Veterans Affairs
Veterans Certification Officer
146 Silas H. Hunt Hall ..................................................... 575-5454

The Office of Affirmative Action, 221 Administration Building, has been designated to coordinate efforts to comply with the provisions of Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, and the Civil Rights Act of 1991.
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.
Fayetteville, Arkansas

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Students who enter a college within the University of Arkansas in the academic year of this catalog generally may expect to follow the graduation requirements set forth by that college in this catalog. Because the faculty of each college reserves the right to change graduation requirements, students should meet with their college advisers regularly to be certain that they are aware of any changes in graduation requirements that may apply to them.

Acceptance of registration by the University of Arkansas and admission to any educational program of the University does not constitute a contract or warranty that the University will continue indefinitely to offer the program in which a student is enrolled. The University expressly reserves the right to change, phase out, or discontinue any program.

The listing of courses contained in any University bulletin, catalog, or schedule is by way of announcement only and shall not be regarded as an offer of contract. The University expressly reserves the right to 1) add or delete courses or programs from its offerings, 2) change times or locations of courses or programs, 3) change academic calendars without notice, 4) cancel any course for insufficient registrations, or 5) revise or change rules, charges, fees, schedules, courses, requirements for degrees and any other policy or regulation affecting students, including, but not limited to, evaluation standards, whenever the same is considered to be in the best interests of the University of Arkansas.
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# 2009 Academic Calendar

## Summer Session I, 2009 - First Six Weeks (29 Class Days)
- **May 18**: Classes begin
- **May 19**: Last day to register, add a course, or change from audit to credit
- **May 21**: Last day to drop without a mark of "W" or change from credit to audit
- **May 25**: Memorial Day Holiday
- **June 15**: Last day to drop a Session I class
- **June 26**: Last day to officially withdraw from Session I
- **June 26**: Last day of classes for Session I

## Summer Session II 2009 - Second Six Weeks (29 Class Days)
- **June 29**: Classes begin
- **June 30**: Last day to register, add a course, or change from audit to credit
- **July 2**: Last day to drop without a mark of "W" or change from credit to audit
- **July 3**: Independence Day Holiday
- **July 7**: Last day to drop a Session II class
- **August 7**: Last day to officially withdraw from Session II
- **August 7**: Last day of classes for Session II

## Summer Session III 2009 - Twelve Weeks (58 Class Days)
- **May 18**: Classes begin
- **May 21**: Last day to register, add a course, or change from audit to credit
- **May 25**: Memorial Day Holiday
- **May 28**: Last day to drop without a mark of "W" or change from credit to audit
- **July 3**: Independence Day Holiday
- **July 14**: Last day to drop a Session III class
- **August 7**: Last day to officially withdraw from Session III
- **August 7**: Last day of classes for Session III

## Summer Session IV 2009 - Ten Weeks (49 Class Days)
- **June 1**: Classes begin
- **June 3**: Last day to register, add a course, or change from audit to credit
- **June 9**: Last day to drop without a mark of "W" or change from credit to audit
- **July 3**: Independence Day Holiday
- **July 16**: Last day to drop a Session IV class
- **August 7**: Last day to officially withdraw from Session IV
- **August 7**: Last day of classes for Session IV

## Summer Session V 2009 - First Five Weeks (24 Class Days)
- **June 1**: Classes begin
- **June 2**: Last day to register, add a course, or change from audit to credit
- **June 3**: Last day to drop without a mark of "W" or change from credit to audit
- **June 23**: Last day to drop a Session V class
- **July 2**: Last day to officially withdraw from Session V
- **July 2**: Last day of classes for Session V
- **July 3**: Independence Day Holiday

## Summer Session VI 2009 - Second Five Weeks (25 Class Days)
- **July 6**: Classes begin
- **July 7**: Last day to register, add a course, or change from audit to credit
- **July 8**: Last day to drop without a mark of "W" or change from credit to audit
- **July 28**: Last day to drop a Session VI class
- **August 7**: Last day to officially withdraw from Session VI
- **August 7**: Last day of classes for Session VI

## Fall 2009 (74 Class Days; 44 MWF, 30 TT)
- **August 24**: Classes begin
- **August 28**: Last day to register, add a course, or change from audit to credit
- **September 4**: Last day to drop without a mark of "W" or change from credit to audit
- **September 7**: Labor Day Holiday
- **October 30**: Last day to drop a fall semester class
- **November 2-13**: Priority Registration for Spring 2009
- **November 25**: Fall Break (administrative offices will be open.)
- **November 26-27**: Thanksgiving Holiday
- **December 8**: Last day to officially withdraw from all classes
- **December 8**: Last day of classes for fall semester
- **December 9**: Dead Day
- **December 10-16**: Final exams
2010 Academic Calendar

Spring 2010 (73 Class Days; 43 MWF, 30 TT)
January 11  Classes begin
January 15  Last day to register, add a course, or change from audit to credit
January 18  Martin Luther King Day
January 25  Last day to drop without a mark of "W" or change from credit to audit
March 19  Last day to drop a spring semester class
March 22-26  Spring Break Week
April 29  Last day to officially withdraw from all classes
April 30  Dead Day
May 1-7  Final exams
May 8  All University Commencement
May 15  Law School Commencement

Summer Session I, 2010 - First Six Weeks (29 Class Days)
May 17  Classes begin
May 31  Memorial Day Holiday
June 25  Last day of classes for Session I

Summer Session II 2010 - Second Six Weeks (29 Class Days)
June 28  Classes begin
July 5  Independence Day Holiday
August 6  Last day of classes for Session II

Summer Session III 2010 - Twelve Weeks (58 Class Days)
May 17  Classes begin
May 31  Memorial Day Holiday
July 5  Independence Day Holiday
August 6  Last day of classes for Session III

Summer Session IV 2010 - Ten Weeks (49 Class Days)
June 1  Classes begin
July 5  Independence Day Holiday
August 6  Last day of classes for Session IV

Summer Session V 2010 - First Five Weeks (24 Class Days)
June 1  Classes begin
July 2  Last day of classes for Session V
July 5  Independence Day Holiday

Summer Session VI 2010 - Second Five Weeks (25 Class Days)
July 6  Classes begin
August 6  Last day of classes for Session VI

Fall 2010 (74 Class Days; 44 MWF, 30 TT)
August 23  Classes begin
September 6  Labor Day Holiday
November 24  Fall Break (administrative offices will be open)
November 25-26  Thanksgiving Holiday
December 7  Last Day of Classes
December 8  Dead Day
December 9-15  Final Exams

University of Arkansas, Fayetteville
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Dean of University Libraries  Carolyn Henderson Allen, B.S., M.S.
Congratulations on your decision to study at the University of Arkansas. You've made a superb choice. If a world-class education is what you are seeking, then there probably has never been a better time in our 138-year history to study here. The spectacular success of the Campaign for the Twenty-First Century has allowed us to provide you with fantastic new educational, recreational, and residential facilities to accommodate the needs of today's student. The 132 newly endowed faculty positions created by the campaign also have allowed us to both retain and attract some of the best teachers, scholars, and researchers found anywhere in the world. More importantly, the 1,738 new student scholarship and fellowship funds created by the campaign have allowed us to attract some of the most academically accomplished students we have ever had. The nation's top students are now choosing the University of Arkansas in record numbers.

So pat yourself on the back. You're part of our university's trend toward excellence. I hope you're as happy to be here as we are to have you. Our top priority at the University of Arkansas is putting you, the student, first. This means providing cutting edge curriculum that is relevant to current needs. This means reducing bureaucratic roadblocks and red tape, and doing everything we can to keep tuition and fee increases to an absolute minimum. We want you to have not only a great education, but a great experience, one you will value for the rest of your life.

I 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,

G. David Gearhart
Chancellor
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.
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 Fay Jones 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 Business
- 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

**Fay Jones 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
- Social Work
- Sociology
- Spanish

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

*A student may pursue a second (or dependent) major if he or she is already pursuing a first major authorized to be given independently.

**Sam M. Walton College of Business**
- Accounting
- Business Economics
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
- Nursing
- Recreation

**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 Communications
- 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
- Horticulture
- Interior Design
- Journalism
- Landscape Horticulture
- 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

**Fay Jones 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 History
- Asian Studies
- 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 and Latino 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
- Banking/Financial Management/Investment
- Business Economics
Undergraduate Fields of Study

Enterprise Resource Planning
Finance
Financial Economics
Information Systems
Insurance/Real Estate
Management
Marketing
Transportation
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
Fullbright 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.ncalhigheredlearningcommission.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 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 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).

Fay Jones 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**

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 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.), and Master of Science in Environmental Engineering (M.S.En.E.).

The College of Engineering offers the following program accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700: Bachelor of Science in Computer Science (B.S.)

**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 Discovery, 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 Fay Jones 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 graduate with honors, a student must hold a cumulative GPA of 3.50 or better for all course work, computed 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 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 and campus 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/](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/](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 years. 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/](http://www.uark.edu/armyhog/). Air Force ROTC is located in 319 Memorial Hall, 479-575-3651, [http://www.uark.edu/-/afrotc/](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 Fay Jones 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-Akhwawayn 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 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 Fullbright College, 722 W. Maple, 479-575-7582. Students in the Bumpers College of Agricultural, Food and Life Sciences may contact International Agricultural Programs, 307 Hort Hall, 479-575-6727. Students in the Walton College of Business may contact the Undergraduate Programs Office at 479-575-4622.
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/

Students interested in applying to the University of Arkansas for the fall semester are urged to apply by the November 15 preferential deadline. Early admittees 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. The scholarship application deadline is also February 1.

All new freshmen and transfer students with fewer than 24 transferable credit hours must submit ACT or SAT test scores. Non-traditional students applying three or more years after high school graduation have the option of submitting 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.

All students born after January 1, 1957, must submit immunization health records to the Pat Walker Health Center after admission. Immunization proof is required prior to first registration. See http://health.uark.edu/forms/ImmunizationCompliance.pdf.

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), 79 (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 2009-10

Applications are reviewed on an individual basis with consideration given to the applicant’s overall grade-point average (GPA), core GPA, class rank, and standardized test scores. 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</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>1 unit general sciences</td>
<td></td>
</tr>
<tr>
<td>2 units lab sciences</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
</tr>
</tbody>
</table>

(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].)

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 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 “undecided major” should not confuse their status with this special, non-degree seeking category. Students who are admitted provisionally and placed in a non-degree seeking status until they earn a minimum 2.0 GPA on 12 credit hours should also not confuse their status with this special 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 special 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. All special students are subject to the same regulations concerning scholarship probation, suspension, and dismissal as other undergraduate students. Students who have previously been assessed developmental course requirements or high school course deficiencies will retain that status as a special non-degree 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. A special student may not enroll for more than nine hours of courses in a term without approval of the student’s academic dean. No more than 24 semester hours earned while in a non-degree seeking status will apply to a degree at the University.

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, except for students in the provisional non-degree-seeking status.

When to Apply
Special students must meet the same application deadlines as other students with the exception of students participating in the senior citizens’ 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 who attend other colleges or universities and 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. They are considered non-degree seeking. Applicants in this category are normally expected to have been out of high school for five 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 residents of Arkansas who are 60 years and older and wish to participate in the senior tuition waiver program.

3. Students who already have a college degree and who want to take credit classes but not toward another degree at this time. They are considered non-degree seeking. Credits earned under this classification will not count toward a graduate degree.

   Application procedure: Submit a completed application and non-refundable application fee. Students who wish to enroll for successive terms should submit a transcript showing the degree.

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.

   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 a student to register during priority registration. The student should submit an application and all appropriate credentials at least one month prior to the time of registration. Registration dates and procedures are found on 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 1
- 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 or currently attend 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), 79 (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 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 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 to attend an intensive English program through the Spring International Language Center. Students will be eligible to enroll in University of Arkansas 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, J-1, or any non-immigrant 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 1-479-575-6246 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 or COMPASS 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 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 19, SAT verbal scores lower than 470, 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 19-27, SAT verbal scores of 480-620, 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. Some degree programs require credit in composition, and students should confer with their advisers 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 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 performance 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 advisers 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 unless they completed two years of a different language in high school.

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;
School may be required to present satisfactory scores on the graduate record examinations (GRE) or another specified national standard test. For further information, see the Graduate School Catalog of Studies at: http://catalogofstudies.uark.edu/2691.php.

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 118 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

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 make satisfactory progress toward a degree, as defined by the University of Arkansas, and complete the FAFSA each year. (See Satisfactory Academic Progress in next column.)

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 and a separate application for scholarships submitted by November 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.
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 2009-2010 academic year. Current high school students interested in scholarships funded by the University are encouraged to consult the Office of Academic Scholarships Web site at http://scholarships.uark.edu for the most up-to-date information.

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 Fellowships, 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 (See chart on following page)
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. 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.

<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>
</tbody>
</table>

SCHOLARSHIPS FOR NEW STUDENTS

Prestigious Fellowships (See chart below)
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 Fellowships, 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 (See chart on following page)
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. 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. NOVEMBER 15 is the priority 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.
4. These scholarships are generally awarded per academic year to cover financial aid and scholarships.

<table>
<thead>
<tr>
<th>SCHOLARSHIPS</th>
<th>Name</th>
<th>Annual Award</th>
<th>Eligibility Criteria</th>
<th>Application Procedure</th>
<th>Renewal Criteria</th>
</tr>
</thead>
<tbody>
<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>
<td></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 percent 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>
<td></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>
<td></td>
</tr>
<tr>
<td>Nonresident Tuition Award</td>
<td>Out-of-state tuition differential</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>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</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>
<td></td>
</tr>
<tr>
<td>Freshman Academic Scholarship</td>
<td>$2,000 non-renewable</td>
<td>Students who have demonstrated outstanding academic achievement. Competitively awarded.</td>
<td>Complete Entering Freshmen Scholarship Application (<a href="http://scholarships.uark.edu">http://scholarships.uark.edu</a>)</td>
<td>Non-renewable</td>
<td></td>
</tr>
<tr>
<td>University of Arkansas Leadership Award</td>
<td>$2,000 per year</td>
<td>Students who have demonstrated outstanding academic achievement and leadership 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>
<td></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>
<td></td>
</tr>
<tr>
<td>Transfer Student Scholarship</td>
<td>AATYC Academic All Star receives full-tuition scholarship. Alternate receives $2,000 per year.</td>
<td>Students nominated as AATYC Academic All Star or alternate by their two-year college.</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 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>
<td></td>
</tr>
</tbody>
</table>
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/academicstanding/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 scholarship awards each year varying in amounts. 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://cehp.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 of engineering. Students must be admitted to the University of Arkansas and
### ARKANSAS ALUMNI ASSOCIATION SCHOLARSHIPS

<table>
<thead>
<tr>
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<th>Application Procedure</th>
<th>Renewal Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumni Association Endowed Scholarship</td>
<td>$6,500 per year for four years</td>
<td>Incoming freshmen with a minimum GPA of 3.60 and 24 ACT or 1090 SAT</td>
<td>Request applications on the web (arkansasalumni.org), by e-mail <a href="mailto:scholarships@arkansasalumni.org">scholarships@arkansasalumni.org</a> or by phone 1-888-ARK-ALUM.</td>
<td>3.00 GPA and completion of on 30 hours per year.</td>
</tr>
<tr>
<td>Arkansas License Plate, &quot;Roads&quot; Scholarship/Alumni Board of Directors Scholarship</td>
<td>$1,500 per year for four years</td>
<td>Applicant finalists from the Alumni Association Endowed Scholarship who are residents of Arkansas. Non-Resident finalists will receive equivalent Alumni Board of Directors Scholarship.</td>
<td>Applications from the Alumni Endowed Scholarship will be considered.</td>
<td>3.00 GPA and completion of on 30 hours per year.</td>
</tr>
<tr>
<td>Alumni Chapter Scholarships</td>
<td>Variable amount based on chapter funds</td>
<td>Minimum GPA of 3.50 and 24 ACT</td>
<td>Considered from both the Alumni Scholarship application and private chapter applications.</td>
<td>Varies from chapter to chapter</td>
</tr>
<tr>
<td>Alumni Legacy Scholarship</td>
<td>Out-of-state tuition differential. Variable amount based on hours enrolled</td>
<td>Non-resident students admitted as degree-seeking students with a 3.0 GPA and 20 ACT. Must have a parent, grandparent, aunt, uncle, sibling or spouse who graduated from the UofA and is an Arkansas Alumni Association member.</td>
<td>Complete a Legacy Scholarship Application on the Web (arkansasalumni.org) or contact the alumni scholarship office (1-888-ARK-ALUM).</td>
<td>Renewable for up to 8 semesters with the completion of 24 hours and a cumulative 2.75 GPA per year.</td>
</tr>
<tr>
<td>Membership Funded Scholarship</td>
<td>Need-based scholarships of variable amounts</td>
<td>Minimum high school GPA or 3.60 and 24 ACT or 1090 SAT</td>
<td>Applications from the Alumni Endowed Scholarship will be considered.</td>
<td>Recipients must reapply for renewal consideration.</td>
</tr>
</tbody>
</table>

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.”
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 is 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 is 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.

**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,
will be recorded. A student may not drop a full-semester course after the Friday of the tenth week of classes in a fall or spring semester. Drop-add deadlines for partial semester courses and summer classes are listed on the fall and summer calendars located on the Web site of the Registrar’s Office.

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

The number of hours allowed includes Independent Study courses taken through Global Campus.

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 unless approved by their academic dean’s office or advising center.

4. Students on academic suspension who choose the limited enrollment option may not carry more than 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 students with severe injury or illness of a temporary or permanent nature, less than 12 hours may be certified on a semester-by-semester basis as full-time with the approval of the student’s dean and the concurrence of a physician or licensed examiner.

<table>
<thead>
<tr>
<th>STUDENT STANDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions of undergraduate student classification are as follows:</td>
</tr>
<tr>
<td>Classification</td>
</tr>
<tr>
<td>Freshman</td>
</tr>
<tr>
<td>Sophomore</td>
</tr>
<tr>
<td>Junior</td>
</tr>
<tr>
<td>Senior</td>
</tr>
</tbody>
</table>
Fee and Cost Estimates for 2009-10

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

EDITOR'S NOTE: The University of Arkansas Board of Trustees approved tuition and fees for the 2009-10 school year prior to deadline for the CD edition of the Catalog of Studies. This PDF and the online edition have been updated.

Estimates of necessary expenses for one semester of the 2009-10 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>Tuition1</td>
<td>$2,505.00</td>
<td>$6,943.65</td>
</tr>
<tr>
<td>($167.00/hr)</td>
<td>($462.91/hr)</td>
<td></td>
</tr>
<tr>
<td>University Fees2</td>
<td>554.55</td>
<td>554.55</td>
</tr>
<tr>
<td>TELE Fee3</td>
<td>169.95</td>
<td>169.95</td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td>$3,229.50</td>
<td>$7,668.15</td>
</tr>
<tr>
<td>Room and Board4</td>
<td>$3,904.00</td>
<td>$3,904.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$7,133.50</td>
<td>$11,572.15</td>
</tr>
</tbody>
</table>

Other variable costs per year:
* Books, supplies, and lab fees $1,083.00
* Personal expenses and travel $2,966.00

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 tuition of $462.91 per credit hour.

Undergraduate students enrolled in the Walton College of Business courses are charged tuition of $192.05 per credit hour in-state and $532.35 per credit hour for out-of-state students.

Undergraduate students enrolled in the College of Architecture are charged tuition of $175.35 per credit hour in-state and $486.06 per credit hour for out-of-state students.

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
   - and 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
     - Technology fees are calculated at $2.24/credit hour 33.60
     - Fine Arts Activity fee 4.05
     - Technology fees are calculated at $2.24/credit hour 33.60
     - 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 $4.00/credit hours 60.00
     - 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 $3,335.00 to $4,567.50 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).
### Fees and Cost Estimates

**University of Arkansas, Fayetteville**

**COLLEGE/COURSE SPECIFIC FEES**

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

<table>
<thead>
<tr>
<th>Course Details</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</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>Course Details</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 Details</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>Course Details</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 Details</th>
<th>Fee/Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSE Fourth-year Student Teaching Fee (CIED 4173, CATE 406V, PHED 407V)</td>
<td>$100.00/semester</td>
</tr>
<tr>
<td>Counseling Practicum Fee CNEC 3648, CNEC 3748</td>
<td>25.00/credit hour</td>
</tr>
<tr>
<td>Counseling Internship Fee CNEC 5748, CNEC 6748 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 Leadership EDLE 574V, EDLE 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 Scubadiving</td>
<td>$130.00/credit hour</td>
</tr>
<tr>
<td>PHED 2002 Teaching and Leading Outdoor Recreation and Experimental Activities</td>
<td>10.00/course</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>$20/course</td>
</tr>
<tr>
<td>Special Education Lab Fee, Practicum CIED 532V</td>
<td>25.00/credit hour</td>
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</tbody>
</table>

#### COLLEGE OF ENGINEERING

<table>
<thead>
<tr>
<th>Course Details</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

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### 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 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) 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: On fifth day of classes if balance has not been paid 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/year</td>
</tr>
<tr>
<td>New student orientation: First Year Experience (New Admits Only) Parents</td>
<td>100.00</td>
</tr>
<tr>
<td>Nursery School in Human Environmental Sciences</td>
<td>800.00/semester</td>
</tr>
<tr>
<td>Parking Permit (per vehicle) Remote Student Resident Reserved Parking Garage Reserved Motorcycle Scooter</td>
<td>47.32</td>
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<tr>
<td></td>
<td>70.36</td>
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<tr>
<td></td>
<td>456.14</td>
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<td></td>
<td>621.75</td>
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<td></td>
<td>47.32</td>
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<td></td>
<td>6.41</td>
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<tr>
<td>Residence Hall nonrefundable application fee (new students only)</td>
<td>35.00</td>
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<tr>
<td>Study Abroad Service fee</td>
<td>10.00/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 Additional late application fee</td>
<td>40.00</td>
</tr>
<tr>
<td></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.

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.
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 day of 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. Please note that effective February 1, 2010, the Treasurer’s Office will no longer distribute paper bills through the mail to help save time, money and resources.

**Late Fees**

Students who register for the fall 2009 and spring 2010 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. Students may also receive a refund through direct deposit. Sign up for direct deposit through the Student Center on ISIS. The link is located beneath “account inquiry” on the left side of the screen.

**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 enrollment 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 2009-10 academic year range from $3,355.00 to $4,567.50 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 $30.37 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.
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 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 Fees 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 paying purposes (per Arkansas stat, Ann. 80-3366).

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 paying 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 domicile to another state from Arkansas for less than 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 paying 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 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 either 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 in 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.
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.
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 grade forgiveness in retaking courses (prior to Fall Semester 1986 and after Fall 1996) (rather than marks) are given. Students who utilized grade renewal or grade forgiveness, is not accepted.

In determining the cumulative grade-point average for the purposes of such awards, grade forgiveness, is not accepted.

**ACADEMIC STANDING CHART**

<table>
<thead>
<tr>
<th>Cumulative Hours Earned</th>
<th>Good Academic Standing when cumulative GPA is</th>
<th>Placed on Academic Warning when cumulative GPA is</th>
<th>Continued on Academic Warning when term GPA is</th>
<th>Suspended* when term GPA is</th>
<th>Dismissed** when term GPA is</th>
<th>Continued on Academic Warning*** when term GPA is</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-16 hours</td>
<td>1.50 or higher</td>
<td>Less than 1.50</td>
<td>1.50 or higher</td>
<td>Less than 1.50</td>
<td>Less than 2.00</td>
<td>2.00 or higher</td>
</tr>
<tr>
<td>17-32 hours</td>
<td>1.60 or higher</td>
<td>Less than 1.60</td>
<td>1.60 or higher</td>
<td>Less than 1.60</td>
<td>Less than 2.00</td>
<td>2.00 or higher</td>
</tr>
<tr>
<td>33-45 hours</td>
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<td>Less than 1.75</td>
<td>1.75 or higher</td>
<td>Less than 1.75</td>
<td>Less than 2.00</td>
<td>2.00 or higher</td>
</tr>
<tr>
<td>46-60 hours</td>
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<td>Less than 1.90</td>
<td>1.90 or higher</td>
<td>Less than 1.90</td>
<td>Less than 2.00</td>
<td>2.00 or higher</td>
</tr>
<tr>
<td>61 hours +</td>
<td>2.00 or higher</td>
<td>Less than 2.00</td>
<td>2.00 or higher</td>
<td>Less than 2.00</td>
<td>Less than 2.00</td>
<td>2.00 or higher</td>
</tr>
</tbody>
</table>

* No student may be suspended who has not spent the prior term of enrollment on academic warning.
** No student may be dismissed who has not been suspended during a prior term of enrollment.
*** Following Suspension and Following Dismissal
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 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 remains 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 taken through Global Campus (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 meet the 2.0 GPA requirement but do not complete six hours will not be allowed to enroll for the remainder of the one-year suspension period.

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 on page 40.

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 en-
<table>
<thead>
<tr>
<th>Areas</th>
<th>Hours</th>
<th>University Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td>Mathematics¹</td>
<td>3</td>
<td>MATH 1203/1204 College Algebra or Any higher-level mathematics course required by major</td>
</tr>
<tr>
<td>Science² (Students required to take corresponding lecture/lab combinations as listed.)</td>
<td>8</td>
<td>ASTR 2003/2001L Survey of the Universe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ANTH 1013/1011L Biological Anthropology/Lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 1543/1541L Principles of Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 1603/1601L Principles of Zoology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 1613/1611L Plant Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 2213/2211L Human Physiology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIOL 2443/2441L Human Anatomy</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 1053/1051L Chemistry in the Modern World</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 1074/1071L Fundamentals of Chemistry</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 1103/1101L University Chemistry I</td>
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<td></td>
<td></td>
<td>CHEM 1123/1121L University Chemistry II</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 1223/1221L Chemistry for Majors II</td>
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<td></td>
<td></td>
<td>CHEM 1233/1231L Chemistry for Majors II</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 1343/1341L Environmental Geology</td>
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<td></td>
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<td>PHYS 1023/1021L Physics and Human Affairs</td>
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<tr>
<td></td>
<td></td>
<td>PHYS 1034 Phys for Elementary Ed Majors</td>
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<td></td>
<td></td>
<td>PHYS 1044 Phys for Architects I</td>
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<td></td>
<td></td>
<td>PHYS 1054 Phys for Architects II</td>
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<tr>
<td></td>
<td></td>
<td>PHYS 2013/2011L College Physics I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 2033/2031L College Physics II</td>
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<tr>
<td></td>
<td></td>
<td>PHYS 2054 Univ Phys I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 2074 Univ Physics II</td>
</tr>
<tr>
<td>Fine Arts, Humanities³</td>
<td>6</td>
<td>a) Fine Arts:</td>
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<tr>
<td></td>
<td></td>
<td>ARCH 1003 Basic Course in the Arts: Architecture Lecture</td>
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<tr>
<td></td>
<td></td>
<td>ARHS 1003 Basic Course in the Arts: Art Lecture</td>
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<td></td>
<td>COMM 1003 Basic Course in the Arts: Film Lecture</td>
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<td>DANC 1003 Basic Course in the Arts: Movement and Dance</td>
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<td></td>
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<td>DRAM 1003 Theater Lecture</td>
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<td></td>
<td></td>
<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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<td></td>
<td></td>
<td>Any intermediate I foreign language⁴</td>
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<tr>
<td></td>
<td></td>
<td>CLST 1003 Intro Classical Studies: Greece</td>
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<tr>
<td></td>
<td></td>
<td>CLST 1013 Intro Classical Studies: Rome</td>
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<td></td>
<td></td>
<td>HUMAN 1124H Honors Equilibrium of Cultures, 500-1600</td>
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<td>HUMAN 2124H Honors Twentieth Century Global Culture</td>
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<td>HUMAN 2003 Intro to Gender Studies</td>
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<td>PHIL 2003 Intro to Philosophy</td>
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<td></td>
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<td>PHIL 2103 Intro to Ethics</td>
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<td></td>
<td></td>
<td>PHIL 2203 Logic</td>
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<td></td>
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<td>PHIL 3103 Ethics and the Professions</td>
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<tr>
<td></td>
<td></td>
<td>WLIT 1113 World Literature I</td>
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<tr>
<td></td>
<td></td>
<td>WLIT 1123 World Literature II</td>
</tr>
</tbody>
</table>

Footnotes for the State Minimum Core:
1. Some students majoring in math, engineering, 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, 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. Typically numbered 2003. See Department of World Languages, Literatures and Cultures in the J. William Fulbright College of Arts and Sciences chapter.
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.
roll 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. 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.

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 purpose of the social science core is to introduce students to the breadth of inquiry in the social sciences — such as the study of ideas, the behavior of individuals, groups, institutions, and their interactions. The core should expose students to the history of and the challenges encountered in our complex, culturally diverse world.

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.

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 repeated 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 classes that are earned at this institution and that are presented to meet the requirements for a degree. No student will be allowed to graduate if that student's academic standing is other than good standing.

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 from 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 University of Arkansas 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.

The Eight-Semester Degree Completion Program (DCP), makes 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. The University of Arkansas, Fayetteville 42

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 unless 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 under-
stand 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 possible 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.

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**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:

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<thead>
<tr>
<th></th>
<th>Fall 2002 Graduating, Bachelor, Degree-Seeking Freshmen</th>
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<tbody>
<tr>
<td></td>
<td>Men</td>
</tr>
<tr>
<td>Total Graduates</td>
<td>572</td>
</tr>
<tr>
<td>Percent of Total</td>
<td>55%</td>
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</tbody>
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<tr>
<th></th>
<th>Fall 2000 Graduating Student Athletes Who Received Athletically Related Aid</th>
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<tbody>
<tr>
<td>Percent of Total</td>
<td>31%</td>
</tr>
</tbody>
</table>

**TRANSFER OF CREDIT**

The following policies control the granting of credit for course work taken at other institutions:

1. Transfer credits are subject to a two-stage evaluation process. First, the eligibility of the hours for transfer is evaluated by the Registrar’s Office based upon decisions of appropriate faculty or using the Arkansas Course Transfer System (ACTS). Credits found to be eligible for general transfer may not always count toward the minimum requirements for a degree at the University of Arkansas. The second step in the evaluation, performed by the academic dean’s office or department responsible for the program of study, determines which hours evaluated will satisfy degree program requirements.

2. Grades earned at other institutions are not calculated in the student’s grade-point average earned at the University.

3. 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.

4. Students can petition to have up to six hours of “D” grades transferred 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 Registrar’s Office.

5. In the case of course work taken at institutions not fully accredited by a regional accrediting agency, transfer credit may be denied altogether or may be granted provisionally subject to successful...
completion of specified courses at the University. Normally, credit is provisionally granted only if the institution is a candidate for regional accreditation.

6. No more than 68 semester hours of lower-division (freshman- or sophomore-level) course work will be accepted. There is no limit placed upon the number of upper-division (junior- or senior-level) credit hours that may be awarded in general transfer, but a student must complete at least 30 hours in residence to meet graduation requirements (see Requirements for Graduation in this catalog). Please also refer to the appropriate college section of this catalog for any additional transfer policies that may be specific to your anticipated degree program.

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. However, 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.

**Military Transfer Credit**

The University of Arkansas accepts transfer credit based upon completed military training as evaluated by the American Council of Education (ACE) guidelines and recommendations. The evaluation must be presented to the University on an official transcript from ACE. Equivalencies for military credit as recommended by ACE are evaluated by departmental faculty and may not be exactly the same as ACE. University of Arkansas equivalencies for ACE credit are displayed on the web site of the Registrar's Office in the Transfer Credit section. Students may elect to receive 6 hours of general military science credit for basic training as evaluated by presentation of the military DD214. Officer training would qualify the student for 6 additional hours of general military science credit. The same training may not be presented for both general military science credit and ACE credit.

**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 directory information. 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.

WAIVER OF ACADEMIC POLICIES

The Academic Standards Committee, composed of faculty and students, serves as a referral body for matters of probation, suspension, dismissal, and other rules and regulations related to academic progress and graduation. Petitions for waiver of academic rules and information on the petitioning process may be obtained on the Registrar’s Office Web site or at the offices of the academic deans or the Registrar. Petitioners should note petitioning deadlines.

STUDENT ACADEMIC APPEALS AND COMPLAINTS

Students are first encouraged to resolve academic conflicts and complaints informally through their department or through the assistance of the Office of Student Mediation and Conflict Resolution, which can provide objective and confidential mediation. If an informal resolution cannot be reached there are two kinds of procedures for undergraduate students to pursue with complaints of an academic nature. Refer to the Student Handbook for appeals structures for other grievances.

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 allege 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 department. The committee will examine available written information 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 chairperson is then obligated to change the grade, notifying the instructor and the student of this action. Only the chairperson has the authority to effect a grade change over the objection of the instructor who assigned the original grade, and only after the foregoing procedures 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 academically 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. Furthermore, every effort shall be made to protect any person against discrimination as a result of statements or actions made in this procedure, but fraudulent or intentionally 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 instructor’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 Hearing 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 investigation. 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 presumptive 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 na-
ional 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:

<table>
<thead>
<tr>
<th>CLEP Examination</th>
<th>UA Course</th>
<th>Minimum Score for Credit</th>
<th>Maximum Credit Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Paper-based test</td>
<td>Computer-based test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(pre July 2001)</td>
<td>(Effective July 2001)</td>
</tr>
<tr>
<td>General Examinations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Mathematics</td>
<td>MATH 0003</td>
<td>520</td>
<td>52</td>
</tr>
<tr>
<td>English Composition(^1)</td>
<td>ENGL 1013</td>
<td>490</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>ENGL 1013 &amp; ENGL 1023</td>
<td>540</td>
<td>65</td>
</tr>
<tr>
<td>Approved Subject Examinations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>PLSC 2003</td>
<td>47</td>
<td>50</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL 1543/1541L</td>
<td>49</td>
<td>50</td>
</tr>
<tr>
<td>Calculus</td>
<td>MATH 2554</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>College Algebra</td>
<td>MATH 1203</td>
<td>50</td>
<td>54</td>
</tr>
<tr>
<td>Freshman College Composition(^2)</td>
<td>ENGL 1013</td>
<td>52 + acceptable essay</td>
<td>57 + acceptable essay</td>
</tr>
<tr>
<td></td>
<td>ENGL 1013 &amp; ENGL 1023</td>
<td>62 + acceptable essay</td>
<td>66 + acceptable essay</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1103/1101L &amp; CHEM 1123/1121L</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>History of United States I</td>
<td>HIST 2003</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>History of United States II</td>
<td>HIST 2013</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Human Growth &amp; Development</td>
<td>HESC 1403</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Introduction to Educational Psychology</td>
<td>PSYC 4033</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>PSYC 2003</td>
<td>47</td>
<td>55</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>SOCI 2013</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>ECON 2013</td>
<td>48</td>
<td>54</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>ECON 2023</td>
<td>48</td>
<td>54</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>MKTG 3433</td>
<td>48</td>
<td>50</td>
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<tr>
<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.
## ADVANCED PLACEMENT PROGRAM (AP)

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>UA Course</th>
<th>Minimum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>ARHS 1003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>ARHS 1003H or ARHS 2913</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>ARHS 1003H or ARHS 2913 &amp; ARHS 2923</td>
<td>5C</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL 1543H/1541M</td>
<td>3P</td>
</tr>
<tr>
<td></td>
<td>BIOL 1543/1541L</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>BIOL 1543H/1541M</td>
<td>5C</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>MATH 2554</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>MATH 2554H</td>
<td>5C</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>MATH 2554 &amp; MATH 2564</td>
<td>3C, 4C</td>
</tr>
<tr>
<td></td>
<td>MATH 2554H &amp; MATH 2564H</td>
<td>5C</td>
</tr>
<tr>
<td>AB Subscore</td>
<td>MATH 2554</td>
<td>4C</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1103/1101L &amp; CHEM 1123/1121L</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>CHEM 1103/1101L &amp; CHEM 1123H/1121M</td>
<td>5C</td>
</tr>
<tr>
<td>Literature or English</td>
<td>ENGL 1023</td>
<td>3E</td>
</tr>
<tr>
<td></td>
<td>ENGL 1023</td>
<td>4C</td>
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<tr>
<td></td>
<td>ENGL 1023H</td>
<td>5C</td>
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<tr>
<td>Language and Composition</td>
<td>ENGL 1013</td>
<td>3E</td>
</tr>
<tr>
<td></td>
<td>ENGL 1013</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>ENGL 1013H</td>
<td>5C</td>
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<tr>
<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>
</tr>
<tr>
<td>French Language</td>
<td>FREN 1013 &amp; 2003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>FREN 1013, 2003 &amp; 2013</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>FREN 1013, 2003, 2013, &amp; 3003</td>
<td>5C</td>
</tr>
<tr>
<td>French Literature</td>
<td>FREN 3103</td>
<td>5C</td>
</tr>
<tr>
<td>German Language</td>
<td>GERM 1013 &amp; 2003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>GERM 1013, 2003 &amp; 2013</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>GERM 1013, 2003, 2013, &amp; 3003</td>
<td>5C</td>
</tr>
<tr>
<td>Government and Politics: Comparative</td>
<td>PLSC 2013</td>
<td>3C</td>
</tr>
<tr>
<td>Government and Politics: U.S.</td>
<td>PLSC 2003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>PLSC 2003H</td>
<td>5C</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>
</tr>
<tr>
<td>Latin: Literature</td>
<td>LATN 2013</td>
<td>2 Pq, 3C</td>
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<td>Macroeconomics</td>
<td>ECON 2013</td>
<td>4C</td>
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<tr>
<td></td>
<td>ECON 2023</td>
<td>4C</td>
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<tr>
<td>Microeconomics</td>
<td>MUTH 1603 &amp; MUTH 1621</td>
<td>2P, 3Cq, 4C</td>
</tr>
<tr>
<td>Music Theory</td>
<td>MUTH 1603 &amp; MUTH 2603</td>
<td>4C</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 &amp; PHYS 2033/2031L, PHYS 2054H/2050M &amp; PHYS 2033/2031L</td>
<td>3 Cq, 4C</td>
</tr>
<tr>
<td>Physics C Mechanics</td>
<td>PHYS 2054</td>
<td>3 Cq(2,3), 4C</td>
</tr>
<tr>
<td>Physics C, E &amp; M</td>
<td>PHYS 2074</td>
<td>3 Cq2, 4C</td>
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<tr>
<td>Psychology</td>
<td>PSYC 2003</td>
<td>3C</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>SPAN 1013 &amp; 2003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>SPAN 1013, 2003 &amp; 2013</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>SPAN 1013, 2003, 2013, &amp; 3003</td>
<td>5C</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>SPAN 3103</td>
<td>5C</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 2303</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>STAT 2023</td>
<td>4C</td>
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<tr>
<td>Studio Art: Drawing</td>
<td>ARTS 1003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>ARTS 1003 or ARTS 1013</td>
<td>5C</td>
</tr>
<tr>
<td>Studio Art: 2D Design</td>
<td>ARTS 1003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>ARTS 1003 or ARTS 1313</td>
<td>5C</td>
</tr>
<tr>
<td>Studio Art: 3D Design</td>
<td>ARTS 1003</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>ARTS 1003 or ARTS 1323</td>
<td>5C</td>
</tr>
<tr>
<td>U.S. History</td>
<td>HIST 2003 or HIST 2013</td>
<td>3C</td>
</tr>
<tr>
<td></td>
<td>HIST 2003 &amp; HIST 2013</td>
<td>4C</td>
</tr>
<tr>
<td>World History</td>
<td>HIST 1123</td>
<td>4C</td>
</tr>
<tr>
<td></td>
<td>HIST 1123H</td>
<td>5C</td>
</tr>
</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.
College Level Examination Program (CLEP)

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 48

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 48.

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 a 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 10007, 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 1003 or 1013 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>
</tr>
<tr>
<td>Philosophy</td>
<td>PHIL 2003 PHIL 2003H</td>
<td>4,5 HL 6,7 HL</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS 2013/2011L &amp; PHYS 2033/2031L PHYS 2054 &amp; PHYS 2033/2031L</td>
<td>4,5 HL 6,7 HL</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSYC 2003</td>
<td>4-7 HL</td>
</tr>
</tbody>
</table>
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
- The Physics Library

The spacious Helen Robson Walton Reading Room is the Libraries’ most popular quiet study area, and group study rooms are also available. More than 200 reference databases and thousands of electronic journals are accessible from anywhere with a University ID. Reference librarians assist users in locating and using library resources. Students may send questions by e-mail, telephone, or 24/7 chat, and can schedule a one-on-one session with a librarian for more extensive research questions. Reference librarians also conduct orientation sessions on research methods throughout the semester. Students may also visit the tutors from the Quality Writing Center and the Enhanced Learning Center on site in Mullins Library Sunday through Thursday. With more than 1.7 million volumes and 15,000 journal subscriptions, students will find plenty of research material for every subject. Other resources in the collections include several thousand maps, manuscripts, and more than 27,000 audio and visual materials, including music scores, recordings, and movies, that you can hear or view in the Performing Arts and Media Department.

A full-service computer Research Commons is located on the lobby level of Mullins, and students may check out a laptop and log onto the Internet from anywhere in the library using wireless access technology. Visit the Libraries’ Web page at http://libinfo.uark.edu to learn more about services and collections or access the My Library function that allows users to check library records, renew books, request holds and save catalog searches. 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, usually within 24 hours; physical items will be held for pickup at the main service desk on the Lobby Level.

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. The Government Documents Department has also been a depository for Arkansas state publications since 1993. The University Libraries’ map collection and GIS (Geographic Information Systems) program, including a public GIS workstation equipped with ArcGIS Desktop Suite, are available.

In Special Collections, students can read rare books from around the world, consult the largest book collection related to Arkansas, handle historic letters and diaries, magazines, and old photographs related to Arkansas, as well as watch old black and white films made in or about the state. Through the Libraries’ Pryor Center for Arkansas Oral and Visual History, students also have access to hundreds of original oral history interviews conducted with Arkansans from all walks of life.

For information concerning collections and services, please inquire at 479-575-4104. For 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 Kimpe Hall, Gregson Hall and Mullins Library. 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 the same locations.

Quality Writing Center tutors take a non-directive approach, allowing students to maintain ownership of their writing and to control the important editorial decisions that improve their drafts. The tutors 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. Online tutoring is 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 OSX Mail, all of which are supported. Microsoft Exchange services are available to faculty and staff (e-mail, calendaring, project management) on Web version for exchange.uark.edu, Outlook 2007, or Entourage 2008. 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 through 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, the J.B. Hunt Transport Services Center, and 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 workshops 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 workshops. 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,
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 are 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
archinfo@cavern.uark.edu

**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://biscweb.uark.edu/Coop/home/coophome.htm
David Krementz, unit leader
SCEN 632
479-575-6709
coopunit@uark.edu

**ARKANSAS LEADERSHIP ACADEMY**
http://www.arkansasleadershipacademy.org/
Beverly Elliott, director
WAAx 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

**BESSIE BOEHM MOORE CENTER FOR ECONOMIC EDUCATION**
http://bmcoe.uark.edu/
Rita Littrell, director
RCED 217
479-575-2855

**CENTER FOR ADVANCED SPATIAL TECHNOLOGIES**
http://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/Center_for_Communication_and_Media_Research.html
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://protein.uark.edu/
Frank Millett and Roger Koepp, 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
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://sociology.uark.edu/1705.htm
William Schwab, director
Main 211
479-575-3206
bschwab@uark.edu

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 Springs, 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 FOR 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
http://gfi.uark.edu
Wayne Lee, director
RCED 205
479-575-4399

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

HEALTH EDUCATION PROJECTS OFFICE
http://coehp.uark.edu/5592.htm
Michael Young, director
HPER 326A
479-575-5639

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

HUMAN PERFORMANCE LABORATORY
http://hpl.uark.edu
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/eam
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
BELL 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
WAAX 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://cied.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://cdis.uark.edu/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://uacdc.uark.edu  
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

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;
• Math and writing resources;
• Study rooms; and
• State-of-the art computers with laptop checkout availability.

Center partners include the Math and Tutoring Resource Center (Sci-
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 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 inadvertently create conflicts, or inhibit informal resolution. Our goal is to create an environment that supports the early resolution of conflict.

The University Ombuds Office is in the Arkansas Union, Room 628; phone 479-575-4831; Web: http://www.uark.edu/ua/ombuds/.

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 these three councils 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://ugagreeks.uark.edu/.

Multicultural Center

The Multicultural Center is here to welcome students to the Razorback family at the University of Arkansas. The Multicultural Center is a department that enhances the student academic experience by preparing them for life in a rich and diverse society. The Multicultural Center is committed to providing an optimal learning 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 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 addressing 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 Conduct Board or the PEERs (Peers Educating Ethical Razorbacks) program should contact the director of the OCSSE at judicial@uark.edu. The All-University Conduct Board comprises faculty, staff 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 and staff 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 at the Student Handbook Web site 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 first-year students through a variety of classroom and co-curricular activities. 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 11 major initiatives: New Student Orientation, R.O.C.K. Camp, Hog W.I.L.D. Welcome Weeks, Academic Convocation/Burger Bash, Help-A-Hog, Midnight Madness Shopping Spree, Fall Family Weekend and Spring Family Reunion, Parent Programs, Parent Partnership Association, and 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 located in the Arkansas Union, Room A688; phone 479-575-5002; Web: http://fye.uark.edu/.

PRE-COLLEGE PROGRAMS

The Office of Pre-College Programs comprises nine college preparation initiatives that collectively identify, challenge and enrich prospective college
students to prepare them for the rigors of higher education. These initiatives include seven federally funded TRIO programs (Educational Talent Search, College Project Talent Search, University Access Talent Search, Upward Bound, REAL Upward Bound, Upward Bound Academy for Math and Science, and Veterans Upward Bound,) as well as Gifted and Talented Scholars, and College Residential Institute. The office focuses on providing equal opportunity for potential first-generation college students who aspire to continue their education at the collegiate level. Eligibility requirements include, but are not limited to, having first-generation status and exhibiting academic potential. 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/.

**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.

**Upward Bound and REAL Upward Bound**

Upward Bound is designed to offer challenging pre-college 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.

**Upward Bound Academy for Math and Science**

The Upward Bound Academy for Math and Science serves students in grades 9-12 from Washington, Madison, and Crawford counties in Arkansas. This college preparatory program for students who excel 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.

**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.

**Gifted & Talented Scholars**

The University of Arkansas Gifted & Talented Scholars program identifies 6th-12th grade students who possess exceptional academic ability and motivation. Through academic events and programming, frequent newsletters and other informative correspondence, the program serves as a resource for students and parents in preparing for college and offers them an opportunity to establish a relationship with the University of Arkansas Honors College early in their academic careers. The Gifted & Talented Scholars Summer Academy, an intensive three-week residential experience for students completing the 8th or 9th grades, is an educationally advanced and dynamic learning environment designed to develop the intellect and imaginations of gifted students. Explorations iCAMP is a one-week program with a diverse and engaging curriculum for students completing the 6th or 7th grades. (Gifted & Talented Scholars is open to students in Arkansas and surrounding states.)

**College Residential Institute**

The College Residential Institute is a month-long program specifically designed for rising 9th grade students from the Kauffman Scholars program in Kansas City and the KIPP Delta College Preparatory School in Helena, Arkansas. The program is a mixture of fun activities, academic engagement, and authentic campus life at the University of Arkansas. 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.

**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.

The 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 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 prior to attending an orientation session. Students requesting an exemption from the University of Arkansas Freshmen Residency Requirement should send all required paperwork to University Housing at least three weeks prior to attending an orientation session to ensure the student receives approval or denial prior to attending orientation. Failure to do so could cause long delays in the orientation process. Students needing a 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 staff person, Coordinator for Residence Education, 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.

University Housing offers innovative Living/Learning Communities for University of Arkansas students. These Living/Learning Communities comprise major- or discipline-specific Academic Learning Teams and more general and exploratory Thematic Learning Communities. These opportunities have been designed to help students in their transition to college, to fit their interests and needs, and to help them achieve success academically and socially. Most importantly, students get to live with peers who have the same interests, majors, or career plans. Members of Living/Learning Communities have the change to get to know faculty on a personal level and develop strong friendships with fellow students. Living/Learning Communities cost nothing extra, and residents have the opportunity to participate in fun experiences that connect learning in and out of the classroom.
Living options include traditional halls, suites and apartments with designations of single-gender or co-ed. Rooms are available for visually or hearing-impaired students as well as those who are physically challenged. Residence hall entry/exit doors are secured 24 hours a day. Some entries are unlocked to accommodate offices housed in our facilities and classes that are held in our classrooms. These entry/exit doors are not secured 24 hours each day. Most, but not all, of these areas have interior doors that secure the living floors. Residents are provided access via an electronic access system. Students should be careful not to allow non-residents to follow them into their residence hall. Residents are provided access via a fob issued when they check-in. Students are responsible for escorting all visitors and guests at all times.

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 “Wooo 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**
- ATMs (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
- Mama Leone’s Pizza & Pasta
- Chick-Fil-A®
- Leisure Food Court
- Hot rotisserie food
- Salads, soups, barbecue, baked items

**Union Market**
- Bamboo Asian Cuisine
- Burger King®
- Sub Generation sandwiches
- 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
- Union Programs 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**

http://leadership.uark.edu

The Center for Leadership and Community Engagement, located in the Arkansas Union A665, is the central location for student organizations and activities for the University. The primary mission of the Center for Leadership and Community Engagement is to engage all students in purposefully designed leadership education and experiential learning opportunities that result in becoming self-aware, discovering value in self and others, developing critical thinking and communication skills, becoming a lifelong learner, and developing responsible citizenship.

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

**Student Organizations**

All student organizations must register annually with the Center for Leadership and Community Engagement. Registration information is kept on file to assist students and administrators in learning more about particular organizations. The Center for Leadership and Community Engagement pro-
vides student organizations with assistance and services to help them succeed, including the annual Student Involvement Fair known as Razorbash, information on facility reservations and fund-raising, trademark forms, mailboxes, and locker space. The center also assists student organizations in event planning, provides educational workshops for students and advisors, and conducts retreats for student organizations. A limited number of offices are also awarded annually in the Arkansas Union to organizations through the Arkansas Union Advisory Committee.

Types of Registered Student Organizations (RSO):

**Governing** – An organization whose primary purpose is to serve as a governing body for a large or specific constituency of students.

**Greek** – An organization with Greek letters who is a member of the National Inter-Fraternity Council, the Pan-Hellenic Council, or the National Pan-Hellenic Council.

**Honorary/Service** – An organization that requires a minimum grade point average as a prerequisite to membership and/or is affiliated with a national service or honorary organization.

**International/Cultural** – An organization whose primary purpose is to provide a forum in which participants create awareness for a specific culture through educational, social, and recreational activities.

**Professional** – An organization whose primary purpose is to provide a forum for participants to discuss and develop professional careers and/or is affiliated with a national or regional association.

**Religious** – An organization whose primary purpose is to provide information and activities associated with one or more religions.

**Special Interest** – An organization whose primary purpose is to provide an organized format for the practice and/or pursuit of a special or common interest.

### Leadership Programs

Leadership programs are designed to help students gain and refine leadership skills and to allow them to network with other campus leaders. Selected programs include: Emerging Leaders, the LeaderShape Catalyst Program, the Leadershape Institute, the Arkansas Student Leadership Academy, the Leadership Workshop Series, the LEAD Team and the Leadership Resource Library. These interactive programs motivate students and develop key leadership skills related to self-awareness, management, organizational leadership, interpersonal communication skills, and mentoring others. Students play an integral role in planning and implementing these programs in order to refine their leadership skills.

### Community Engagement and Service Learning Programs

The Volunteer Action Center is a student-led programming board designed to connect students and student organizations. The Volunteer Action Center administers several programs including the Susan G. Komen Race for the Cure, Make a Difference Day, the Angel Tree Book Drive, and Alternative Spring Break. The Volunteer Action Center also oversees an e-mail List-serv that connects students to service opportunities within the Northwest Arkansas community.

### Associated Student Government

The Associated Student Government (ASG) provides important services to the University community and is an integral part of a shared campus governance system. 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 Associated Student Government have the opportunity to positively impact the quality of student life, work with and allocate student fees, provide a voice for student concerns as well as oversee programs and policies for all students. Through the executive, legislative and judicial branches of student government, students have the opportunity to work for and among their peers to make a difference on all levels of the University. Involvement levels and time commitment vary upon duties. Visit the student government Web site at http://asg.uark.edu or the Associated Student Government office (ARKU A669) to find out more.

### STUDENT ACTIVITIES

#### University Programs

University Programs is a volunteer student organization responsible for planning and coordinating more than 150 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.

#### 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 eight Friday nights each semester. 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 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 University of Arkansas 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 Nationally Competitive Awards 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. These offices are available to students across the University. For additional information see the chapter on Financial Aid and Scholarships in this catalog.

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:

Sydney Burris, Fulbright College of Arts and Sciences, Old Main 517
Carol Gattis, College of Engineering, Bell Engineering 3165
Gary Ferrier, Walton College of Business, Walton College of Business 418
Kim Sexton, School of Architecture, Vol Walker 120
Nan Smith-Blair, College of Education and Health Professions, Ozark Hall 216E
Duane Wolf, Dale Bumpers College of Agricultural, Food and Life Sciences, Plant Sciences 115

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 Advanced Placement Summer Institute (APSI) is a College Board approved summer program coordinated by the Honors College. The institute provides training to AP teachers in American history, world 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 ACADEMIC REGULATIONS

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 freshman 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. A separate application is required (applications are available on the Honors College Web page). The application deadline will be posted on the Honors College Web page at http://honorscollege.uark.edu. Students will also be required to interview for the fellowships. The award covers tuition, room and board, and provides additional monies for the purchase of a computer and for study abroad.

Honors College Academy Scholarships provide $16,000 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 15 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 15 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/.
Interdisciplinary Studies

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.

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
• Associate Professor Kim
• Assistant Professors Kavdia, Ye

Chemical Engineering Faculty:
• Professors Beitle, Ulrich
• Associate Professor Roper
• Assistant Professors J. Hestekin, Servoss

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 (V.K), Varadan (V.V)
• Professors Ang, Balda, Manasreh, Mantooth, Naseem
• Associate Professors El-Shanawee, Ji
• Assistant Professor Yu
• Research Associate Porter

Industrial Engineering Faculty:
• Associate Professor Mason

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

Microelectronics-Photonics Faculty:
• Adjunct Professors DePriest, Foster

Physics Faculty:
• Distinguished Professors Salamo, Xiao
• Professors Bellaiche, Singh
• Research Professor Vickers
• Associate Professors Fu, Oliver
• Assistant Professors 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: Three hours of required courses (ELEG 4203, and one of INEG 4323, INEG 4433, or INEG 4443). At least an additional 12 hours must be taken from the following undergraduate courses (BENG 4123, CHEM 4213, ELEG 4203, ELEG 4223, MEEG 4303, MEEG 4443, MEPH 488W, 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. See examples at the MicroEP Web site.

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 demonstrating sensitivity toward change for the future. Our goal is for our graduates to commit to being self-directed, lifelong learners and to be responsible leaders, possessing strong communication skills and problem-solving abilities.

To accomplish this, the broad curricula include basic courses in the general sciences and liberal arts, as well as the 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 teaching, research, and service in the agricultural and human environmental sciences. This responsibility is shared with the Division of Agriculture.

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.
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.

**Isely-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 Agri-
cultural, 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 HACCP systems. Applicants must have a B.S. degree or seven years of relevant experience in the food industry to be admitted. See page 90 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

General Foods and Nutrition (GFNU-M)

Global Agricultural, Food and Life Sciences (AFLS-M) – See page 77.

Human Development and Family Sciences (HDFS-M)

Interior Design (IDES-M)

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. It is recommended that students declare a minor by the end of their sophomore year.

**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. Students interested in taking examinations should contact testing services to schedule an examination date. All 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.

**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 may be obtained directly from Tuskegee University. 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, University of Arkansas, Fayetteville, AR 72701, phone 479-575-4351 in the spring prior to making fall application for admission to a veterinary school to verify that they can complete the requirements for the school they wish to attend. Pre-professional requirements and specific requirements for admission to colleges of veterinary medicine at Louisiana State University, Oklahoma State University,
University of Missouri, and Tuskegee University are listed with information on the Web for the department of Animal Science at http://www.uark.edu/depts/animals/Vet_Curriculum_Requirements.htm.

HONORS PROGRAM

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 Freshman Orientation
- AFLS 3131H Honors: Management and Leadership
- AFLS 3211H Honors Professional Development
- AFLS 3231H Intro to Scientific Thinking & Methods - Logic, Reasoning, & Science 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 Fellowships (SURF) awarded by the state. The results of the student's original research or creative project can be published in Discovery, the college undergraduate research journal. Honors students can also apply to the Honors College for Study Abroad and conference 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.

STUDY ABROAD

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.

COLLEGE ADMISSION REQUIREMENTS

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.

COLLEGE ACADEMIC REQUIREMENTS

Residency

All students must have a minimum residence requirement of 36 weeks and 30 semester hours. The senior year must be completed in residence on campus unless a senior has already met the minimum residency requirement. This student 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.

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 Scienc-
es 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 toward a degree.
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 and/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. This rule applies regardless of the school from which the course is taken.

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.

Students interested in earning an additional bachelor's degree should refer to the University requirements on page 44.

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:

- A+...........4.00
- A...........3.33
- A-...........3.00
- B+...........2.67
- B.............2.33
- B-............2.00
- C+...........1.67
- C.............1.33
- C-............1.00
- D+ ..........1.00
- D.............0.67
- D-............0.33
- F .............0.00

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 Professors Edgar (D.), Edgar (L.)
- 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 formal 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 70 for B.S.A. requirements)

Communications (12 – 15 hours)
- ENGL 1013 English Composition I
- ENGL 1023 English Composition II
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication
- AGED 3142/3141L Agricultural Communications and lab

U.S. History or Government (3 hours)
- Choose 3 hours from U.S. History University Core courses

Mathematics, University Core Course (3 hours)
- MATH 1203 College Algebra or higher level math

Physical, Biological Sciences (16 hours)
- BIOL 1543/1541L Principles of Biology with lab
- BIOL 2013/2011L General Microbiology and lab or PHYS 1044 Physics for Architects I with lab component or higher level
- CHEM 1074/1071L Fundamentals of Chemistry and lab

ACOM and ASTM Concentrations:
- Science or Math Elective (3 hours)
- AGED Concentration:
  - Science Elective (3 hours)

Fine Arts/Humanities (6 hours)

ACOM and ASTM Concentrations:
- Choose 6 hours in two categories from Fine Arts, Humanities Core (categories a and b)

AGED Concentration:
- WLIT 1113 World Literature I or WLIT 1123 World Literature II
- FNAR Core Course or PHIL Core Course or HUMN Core Course

Social Sciences (9 hours)
- AGEC 1103 Principles of Microeconomics or AGEC 2103 Principles of Agri Macroeconomics
- PSYC 2003 General Psychology
- Choose 3 hours from other listed fields of study in University Core

Departmental Core (26 hours)
- AFLS 1011 Freshman Orientation
- AGED 1001 Orientation to Agri-Extension Education
- AGED 4003 Issues in Agriculture
- AGME 1613/1611L Fundamentals of Agricultural Systems Technology and lab
- AGME 2903 Applied Microcomputers
- AGME 4011 Senior Seminar
- ANSC 1032 Introduction to Animal Science or ANSCE 1051 Introduction to Livestock Industry
- CSES/HORT 1203 Introduction to Plant Sciences
- CSES 2013 Pest Management
- CSES 2203 Soil Science
- CSES 2201L Soil Science lab or CSES 355V(1) Soil Profile Description

Additional Course Requirements for Agricultural Education Concentration (AGED) (44-45 hours)

Mechanical Technology Courses (Choose 8 hours)
- AGME 2123 Metals and Welding with lab component
- AGME 3042 Ag Construction Technology
- AGME 3102/3101L Small Power Units/Turf Equipment and lab
- AGME 3153 Surveying Agri and 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 (24 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
- 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 Responder-First Aid or equivalent (If student has completed Red Cross Life Saver certification, choose 3 hours of general electives.)

Other requirements for AGED Concentration (12-13)
- AGED 457V Internship (6 hours)
- HORT Elective (3 hours)
- Science Elective (3-4 hours) – CHEM 2613/2611L required for Science Teacher Licensure
- Electives (May select a minor) (1-5 hours)

124 Total Hours

Additional Course Requirements for Agricultural Communications Concentration (ACOM) (35 hours)

COMM 2303 Public Speaking
- JOUR 1023 Media and Society
- JOUR 1033 Fundamentals of Journalism with lab component
- AGED 3153 Leadership Development in Ag
- AGED 3243 Ag Reporting and Feature Writing
- AGED 3942 Professional Development in Agricultural Communications
- AGED 4143 Electronic Communications in Agriculture
- AGED 4243 Graphic Design in AFLS Productions
- AGED 4343 Communication Campaigns in Agriculture
EXED 475V Internship in Extension (3 hours)
Choose 6 hours from:
- AGED 4443 Methods of Technological Change
- COMM 3303 Small-Group Communication
- COMM 3703 Organizational Communication
- JOUR 2013 News Reporting I
- JOUR 2032/2031L Broadcast News Reporting I and lab
- JOUR 3023 News Reporting II with lab component
- JOUR 3072/3071L Broadcast News Reporting II and lab
- JOUR 3743 Public Relations Principles

Electives (May select a minor) (11-14 hours)

124 Total Hours

Additional Course Requirements for Agricultural Systems Technology Management Concentration (ASTM) (32 hours)
- AGEC 2303 Intro to Agribusiness
- AGEC 3303 Food and Agricultural Marketing
- AGEC 3403 Farm Business Management
- AGED 3153 Leadership Development in Agriculture
- AGME 3102/3101L Small Power Unit/Turf Equipment and lab
- AGME 3173 Electricity in Agriculture with lab component
- EXED 475V Internship in Extension (3 hours)
- Science or Math Elective (3-4 hours)
Choose 7-8 hours from:
- AGME 2123 Metals and Welding with lab component
- AGME 3153 Surveying Agriculture and Forestry
- AGME 4203 Mechanized Systems Management with lab component
- AGME 4973 Irrigation with lab component
- ENSC 3603 GIS for Environmental Science
- GEOS 3543 Geographic Info Science
- GEOS 4523 Computer Mapping
- GEOG 4593 Intro to GPS
- PHYS 220V Introduction to Electronics I
- PHYS 320V Introduction to Electronics II
Electives (May select a minor) (14-17 hours)

124 Total Hours

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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<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>1</td>
<td>AFLS 1011 Freshman Orientation</td>
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<td>1</td>
<td>AGED 1001 Orientation to Agricultural/Extension Education</td>
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<tr>
<td>2</td>
<td>AGED 1122 Ag Youth Organizations for AGED concentration</td>
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<tr>
<td>4</td>
<td>AGME 1613/1611L Fundamentals of Agricultural Systems Technology and lab</td>
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<tr>
<td>3</td>
<td>AGME 2903 Applications of Microcomputers</td>
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<td>ANSC 1032 Introductory Animal Sciences</td>
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<td>1</td>
<td>ANSC 1051 Introduction to the Livestock Industry</td>
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<td>University Core ENGL 1013 Composition I</td>
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<td>4</td>
<td>BIOL 1543/1541L Principles of Biology and lab</td>
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<td>CSES/HORT 1203 Introduction to Plant Sciences</td>
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<td>University Core ENGL 1023 Composition II</td>
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<td>University Core MATH 1203 College Algebra or higher math</td>
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<tr>
<td>3</td>
<td>AGEC 1103 Principles of Ag Microeconomics or AGEC 2103 Principles of Ag Macroeconomics</td>
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<tr>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication</td>
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<tr>
<td>5</td>
<td>CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
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<td>ENGL 2003 Advanced Composition or Exemption Elective</td>
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<td>3</td>
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<td>3</td>
<td>AGEC 3153 Leadership Development in Agriculture (ACOM &amp; ASTM concentration or elective for AGED)</td>
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<td>3</td>
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<td>3</td>
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<td>3</td>
<td>Fine Arts/Humanities Core Elective (WLIT 1113 for AGED)</td>
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<td>3-5</td>
<td>Concentration Electives</td>
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<td>3</td>
<td>EXED 475V Internship in Extension (ACOM &amp; ASTM Concentration) or AGED 475V Internship in Agri Educ (AGED Concentration for Teacher Licensure)</td>
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<td>AGED 4003 Issues in Agriculture</td>
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<td>9-12</td>
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<th>Spring Semester Year 4</th>
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<td>AGME 4011 Senior Seminar</td>
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<tr>
<td>7-13</td>
<td>Concentration Electives</td>
</tr>
<tr>
<td>4</td>
<td>AGED 475V Internship in Agri Educ (AGED Concentration for teacher licensure)</td>
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<thead>
<tr>
<th>Minor in Agricultural Communications (ACOM-M)</th>
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<tbody>
<tr>
<td>The Agricultural Communications Minor will consist of 18 hours to include the following:</td>
<td></td>
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<tr>
<td>- AGED 3142/3141L Agricultural Communications and lab</td>
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</tbody>
</table>
Choose 9 hours from:

- AGED 3243 Ag Reporting and Feature Writing
- AGED 3942 Professional Development in Ag Communications
- AGED 4143 Electronic Communications in Agriculture
- AGED 4243 Graphic Design in AFLS Productions
- AGED 4343 Communication Campaigns in Agriculture

A student planning to minor in Agricultural Education must notify the program adviser.

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
- AGED 1122 Agricultural Youth Organizations
- AGME 2903 Applications of Microcomputers
- CIED 3023 Survey of Exceptionality or CIED 4023 Teaching in Inclusive Secondary Settings
- AGED 3033 Classroom Learning Theory
- AGED 3133 Methods in Agricultural Education with lab component
- AGED 4012 Program Development
- AGED 4843 Methods in Agricultural Laboratories

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 the following:

- AGME 1613 Fundamentals of Agricultural Systems Technology
- AGME 2903 Agricultural and Human Environmental Sciences Applications of Microcomputers or equivalent
- AGME 1611 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 Communication with lab component
- AGME 4793 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 with lab component
- 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 with lab component
- JOUR 2032/2031L Broadcast News Reporting I and lab
- JOUR 3072/3071L Broadcast News Reporting II and lab
- JOUR 3633 Media Law
- JOUR 4863 Television News Reporting I with lab component

Print and Broadcast Journalism (18 semester hours)

- JOUR 1023 Media and Society
- JOUR 1033 Fundamentals of Journalism with lab component
- JOUR 2013 News Reporting I
- JOUR 2032/2031L Broadcast News Reporting I and lab
- JOUR 3072/3071L Broadcast News Reporting II and lab
- JOUR 3633 Media Law

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 312, 346, AND 313 FOR AGRICULTURAL AND EXTENSION EDUCATION COURSES (AGED, EXED, OR AGME).

AGRICULTURAL ECONOMICS AND AGROBUSESS (AEAB)

Steve A. Halbrook
Head of the Department
217 Agriculture Building
479-575-2256
http://www.uark.edu/depts/agriecon/

- Professors Ahrendsen, Cochran, Dixon, Goodwin, Halbrook, Nayga, Popp (M.), Wailes
- Adjunct Professors Bryant, Miller
- Associate Professors McKenzie, Parsch, Popp (J.), Rainey, Thomsen
- Assistant Professors Flanders, Griffin, Nalley

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
Communications (12-15 hours)
- ENGL 1013 Composition I
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication
- Choose 3 hours from AGED 3142/3141L, ENGL 2013, ENGL 3053, COMM 2303, COMM 2323, COMM 2373, COMM 3303, COMM 3383, or JOUR 1033

U.S. History or Government (3 hours)
Choose 3 hours from U.S. History University Core - See page 40

Mathematics and Statistics
ABMM, PRLW Concentrations (9 hours):
- MATH 1203 College Algebra
- MATH 2053 Finite Mathematics
- MATH 2043 Survey of Calculus
- WCOB 1033 Data Analysis and Interpretation

AGEC Concentration (12-13 hours):
- MATH 1203 College Algebra
- MATH 2053 Finite Mathematics
- MATH 2043 Survey of Calculus
- WCOB 1033 Data Analysis and Interpretation
- STAT 4003/4001L Statistical Methods and Lab

Sciences (8 hours)
Choose 8 hours from Science University Core courses - See page 40

Fine Arts and Humanities (6 hours)
Choose 6 hours in two categories from “State Minimum Fine Arts/ Humanities Core” (categories a and b) – See page 40

Social Sciences (9 hours)
- PSYC 2003 General Psychology or
- SOCI 2013 General Sociology or RSOC 2603 Rural Sociology
- AGEC 1103 Principles of Agricultural Microeconomics or
- ECON 2023 Principles of Microeconomics
- AGEC 2103 Principles of Agricultural Macroeconomics or
- ECON 2013 Principles of Macroeconomics

Departmental Core (18 hours)
- AGEC 2303 Introduction to Agribusiness
- AGEC 3303 Food and Agricultural Marketing
- AGEC 3403 Farm Business Management
- AGEC 3503 Agricultural Law
- AGEC 4143 Agricultural Finance
- AGEC 4613 Domestic and International Agricultural Policy

Bumpers College Broadening Electives (9 hours)
Choose 9 hours outside of AGEC but within in the Bumpers College.

General Electives (20 hours)

Additional Requirements for Agribusiness Management and Marketing Concentration (27 hours)
Choose 3 hours from:
- AGEC 2143 Agribusiness Financial Records
- WCOB 1023 Business Foundations
And take:
- AGEC 3373 Futures and Options Markets
- AGEC 3313 Agribusiness Sales
- AGEC 3413 Principles of Environmental Economics
Choose 6 hours from:
- AGEC 4113 Ag Prices and Forecasting
- AGEC 4313 Agribusiness Management
- AGEC 4323 Agribusiness Entrepreneurship

- AGEC 4373 Advanced Price Risk Management
Choose 9 hours from:
- MATH, STAT, AGEC or courses in WCOB or the Bumpers College.

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 and Natural Resources Law
Choose 3 hours from:
- AGEC 4313 Agricultural Business Management
- AGEC 4323 Agribusiness Entrepreneurship
Choose 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 3303 Small Group Communication
- COMM 3383 Persuasion
- COMM 3553 Argumentation: Reason in Communication
- COMM 3443 Intro to Rhetorical Theory

Area 3
- PHIL 2003 Intro to Philosophy
- PHIL 2103 Intro to Ethics
- PHIL 2203 Logic
- PHIL 3103 Ethics and the Professions
- PHIL 4143 Philosophy of Law

Area 4
- PLSC 3103 Public Administration
- PLSC 3153 Public Policy
- PLSC 3243 Judicial Process
- PLSC 4193 Administrative Law
- PLSC 4253 The U.S. Constitution I
- PLSC 4263 Supreme Court and Civil Rights

Area 5
- AGEC (any upper level)

124 Total Hours

3/3 Program
Exceptional students in the Pre-Law concentration may enroll in the Law School in their fourth year provided that the following requirements have been met:
1. completed all University, college, and department core requirements for the pre-law concentration;
2. completed 12 hours in the specialization list for pre-law;
3. attained a cumulative grade-point average in all college or University course work of at least 3.50 without grade renewal;
4. attained a LSAT score of at least 159.
A student who has satisfied these requirements may substitute law school course work for the remaining total hours required for the bachelor’s degree in agricultural business. It is a requirement of the Law School’s accrediting standards that no student be admitted to Law School until they have completed at least three-fourths of the work necessary for the baccalaureate degree. The
requirements embodied in the 3/3 program satisfy this requirement.

**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

Choose 3 hours from:

- AGEC 4313 Agricultural Business Management
- AGEC 4323 Agribusiness Entrepreneurship

Choose 6 hours from MATH or STAT or upper division electives from AGEC or WCOB.

124 Total Hours

The approved list of courses, check sheet, and degree program for all concentrations is 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.

#### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>University Core ENGL 1013 Composition I</td>
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<tr>
<td>University Core MATH 1203 College Algebra</td>
<td>3</td>
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<tr>
<td>History University Core Elective</td>
<td>3</td>
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<tr>
<td>AGEC 2103 Principles of Ag Macroeconomics</td>
<td>3</td>
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<tr>
<td>AGME 2903 or Bumpers College Broadening Elective</td>
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<tr>
<td>WCOB 1120 Computer Competency Requirement (if not AGME 2903 Application of Microcomputers)</td>
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#### Spring Semester Year 1

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<td>University Core ENGL 1023 Composition II</td>
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<tr>
<td>COMM 1313 Communication</td>
<td>3</td>
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<tr>
<td>AGEC 1103 Principles of Ag Microeconomics</td>
<td>3</td>
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<td>MATH 2053 Finite Math</td>
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<td>Science University Core Elective</td>
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<td>Fine Arts/Humanities University Core Elective</td>
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<tr>
<td>AGEC 3903 Food and Agri Marketing</td>
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<tr>
<td>AGEC 2143 Agribusiness Financial Records or WCOB 1023</td>
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<td>General Elective</td>
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#### Spring Semester Year 2

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<td>AGEC 2603 Quantitative Tools for Agribusiness or WCOB 1033</td>
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<tr>
<td>Science University Core Elective</td>
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<tr>
<td>AGEC 2503 Intro to Agribusiness</td>
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<td>Bumpers College Broadening Elective</td>
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<td>General Elective</td>
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#### Fall Semester Year 3

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<tr>
<td>ENGL 2003 Advanced Composition or Exemption Elective</td>
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<tr>
<td>Communication Intensive Elective</td>
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<td>AGEC 3403 Farm Business Management</td>
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#### Spring Semester Year 3

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<td>Specialization Elective</td>
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**Spring Semester Year 4**

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<td>Fine Arts/Humanities University Core Elective</td>
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<td>AGEC 3503 Agriculture Law</td>
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<tr>
<td>AGEC 3413 Principles of Environmental Economics</td>
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<tr>
<td>AGEC 3313 Agribusiness Sales</td>
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<tr>
<td>AGEC 3373 Futures &amp; Options Markets</td>
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**Fall Semester Year 4**

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<td>AGEC 4613 Domestic &amp; International Ag Policy</td>
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<tr>
<td>AGEC 4313 Agribusiness Management or Specialization Elective</td>
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<td>Specialization Elective</td>
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<tr>
<td>General Electives</td>
<td>15 Semester hours</td>
</tr>
</tbody>
</table>

**Minor in Agricultural Business (AGBS-M)**

The Agricultural Business Minor will consist of 18 semester hours to include:

- AGEC 1103 Principles of Agricultural Microeconomics
- AGEC 2303 Introduction to Agribusiness

Choose 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

Choose 6 hours from:

- AGEC 2103 Principles of Agricultural Macroeconomics
- AGEC 2143 Agribusiness Financial Records
- AGEC 2403 Quantitative Tools for Agribusiness
- AGEC 3303 Food and Agricultural Marketing
- AGEC 3313 Agribusiness Sales
- AGEC 3373 Futures and Options Markets
- AGEC 3403 Farm Business Management
- AGEC 3413 Principles of Environmental Economics
- AGEC 3503 Agricultural Law I
- AGEC 3523 Environmental and Natural Resources Law
- AGEC 4113 Agricultural Prices and Forecasting
- AGEC 4143 Agricultural Finance
- AGEC 4303 Advanced Agricultural Marketing Management
- AGEC 4313 Agricultural Business Management
- AGEC 4323 Agribusiness Entrepreneurship
- AGEC 4373 Advanced Price Risk Management
- AGEC 4613 Domestic and International Agricultural Policy
- AGME 2903 Agricultural and HES Applications of Microcomputers
- ECON 3033 Microeconomic Theory
- ECON 3133 Macroeconomic Theory
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 300V Study/Internship Abroad (3 to 6 hours)

Choose at least 3 hours from:

- 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;

Choose 6-9 hours from:

- AFLS 3313H Honors Global Issues in AFLS (and Study Tour)
- AGEC 4163 Agricultural and Rural Development
- AGEC 4613 Domestic and International Agricultural Policy
- ANTH 1023 Introduction to Cultural Anthropology
- ANTH 3123 The Anthropology of Religion
- ANTH 4253 Peoples and Cultures of World Regions
- COMM 4343 Intercultural Communication
- ECON 4633 International Trade Policy
- ECON 4643 International Macroeconomics and Finance
- ECON 4653 Global Competition and Strategy
- FIIR 2813 Introduction to International Relations
- FINN 3703 International Finance
- Foreign Language (student’s choice)
- GEOG 4033 Geography of the Middle East
- GEOG 4783 Geography of Europe
- GEOG 4243 Political Geography
- HESC 4653 Global Travel and Tourism Management
- HIST 3043 History of the Modern Middle East
- HIST 3203 Colonial Latin America
- HIST 4013 Europe in the 19th Century
- PLSC 2813 Introduction to International Relations
- PLSC 3803 International Organization
- PLSC 3813 International Law
- PLSC 3853 American Foreign Policy
- Other approved courses with a global emphasis, with permission of the Global Studies director.

A student interested in a Global Agricultural, Food and Life Sciences minor must notify his or her major adviser for detailed information. The minor is coordinated by Raymond W. Barclay, Jr. of International Agriculture Programs, Global Studies Program, 425 HOTZ Hall, rbarclay@uark.edu.

SEE PAGE 312 FOR AGRICULTURAL ECONOMICS AND AGRI-BUSINESS (AGEC) COURSES.

ANIMAL SCIENCE (ANSC)

Keith Lusby
Head of the Department
B114 Agricultural, 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, Rosenkranz, Troxel
- Adjunct Professors Brown (M.A.), Baird, Burke, Chewning, Coblenz, Laurence, Looper, Nugent
- Associate Professors Beck, Jones, Kreader, Pohlman, Powell
- Adjunct Associate Professor Friesen
- 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 agriculture-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 70 for B.S.A. requirements)

Communications (12-15 hours)
- ENGL 1013 Composition I
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication
- Communication Intensive Elective (See adviser for approved list.)

U.S. History University Core Course (3 hours)
Choose 3 hours from U.S. History University Core courses – See page 40

Mathematics University Core Course (3 hours)
- MATH 1203 College Algebra or higher level math

Physical and Biological Sciences (17 hours)
- BIOL 1543/1541L Principles of Biology and lab
- BIOL 2013/2011L General Microbiology and lab
- CHEM 1074/1071L Fundamentals of Chemistry and lab
- CHEM 2613/2611L Organic Physiological Chemistry and lab

Fine Arts and Humanities (6 hours)
Choose 6 hours in two categories from “State Minimum Fine Arts/ Humanities Core” (categories a,b,c, or d) – See page 40

University of Arkansas, Fayetteville
Social Sciences University Core Courses (9 hours)
Choose 9 hours from at least two listed fields of study – See page 40

Animal Science Core (22 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 6 hours from the following:
  - ANSC 4252 Cow-Calf Management
  - ANSC 4262 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 (Choose 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 3152/3151L Applied Animal Nutrition and lab
- ANSC 3333 Diseases of Livestock
- ANSC 3613 Meat Science

Discipline-related Electives (Choose 16 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 2533
- BIOL 2553
- CSE 1203
- CSE 2013
- CHEM 1101L
- CHEM 1103
- CHEM 1121L
- CHEM 1123
- CHEM 2262
- CHEM 2272
- FDSC 2503
- PHYS 2011L
- PHYS 2013
- PHYS 2031L
- PHYS 2033
- POSC 2353
- POSC 3554
- WCOB 1012
- WCOB 1023

Or any upper division course in AEED, AGEC, AGME, AGST, BIOL, CHEM, CSE, FDSC, POSC, or WCOB.

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 chapter for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>1</th>
<th>ANSC 1001L Intro to Animal Science Lab</th>
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<tbody>
<tr>
<td></td>
<td>2</td>
<td>ANSC 1032 Intro to Animal Sciences</td>
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<td>ANSC 1041 Intro to Companion Animal Industry or ANSC 1051 Intro to Livestock Industry</td>
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<td>ENGL 1013 Composition I</td>
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<td>MATH 1203 College Algebra or higher level math</td>
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<thead>
<tr>
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<th>ANSC 2252L Intro to Livestock &amp; Meat Evaluation</th>
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<td>ENGL 1023 Composition II</td>
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<th>ANSC 2781 Career Preparation &amp; Development</th>
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<td>ANSC 3433 Fundamentals of Reproductive Physiology</td>
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<td>CHEM 2613/2611L Organic Physiological Chemistry</td>
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<td>10</td>
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<tr>
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<td>3</td>
<td>Communication Intensive Elective from an approved course list.</td>
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<tr>
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<td>4</td>
<td>BIOL 2013/2011L General Microbiology and lab</td>
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<td>Social Science University Core Elective</td>
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<table>
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<td>BIOL 2013/2011L General Microbiology and lab</td>
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<td>Discipline-related Elective</td>
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</tbody>
</table>

Minor in Animal Science (ANSC-M)
A minor in Animal Science prepares students for jobs in the animal industries. A student planning to minor in animal science must consult with an animal science adviser. The minor consists of 20 hours to include the following:
- ANSC 1001L Introductory Animal Sciences Lab
- 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 3133 Animal Breeding and Genetics
- ANSC 3143 Principles of Animal Nutrition

124 Total Hours
The curriculum leading to the professional degree in biological engineering is under the joint supervision of the deans of the Dale Bumpers College of Agricultural, Food and Life Sciences and the College of Engineering. The engineering degree, Bachelor of Science in Biological Engineering (B.S.B.E.), is conferred by the College of Engineering and is described on page 268. Students who wish to receive this degree enroll in the College of Engineering.

SEE PAGE 320 FOR BIOLOGICAL ENGINEERING (BENG) COURSES.
Choose 9 hours from either Group C or Group D for a minor:

**Group C (Pest Management):**
- CSES 4143 Principles of Weed Control
- PLPA 4333 Biotechnology in Agriculture
- CSES 462V Internship or CSES 400V Special Problems

**Group D (Agricultural Business):**
- AGEC 2303 Introduction to Agribusiness
- AGEC 3403 Farm Business Management
- AGEC 3303 Food and Agricultural Marketing
- AGEC 3373 Futures and Options Markets
- AGEC 3413 Principles of Environmental Economics

**Physical and Biological Sciences** (23-24 hours)
- BIOL 1543/1541L Principles of Biology and lab
- 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 and Humanities** (6 hours)
- Choose 6 hours in two categories from "State Minimum Fine Arts/ Humanities Core" (categories a and b) – See page 40

**Social Sciences University Core Courses** (9 hours)
- AGEC 1103 Agricultural Economics

**Departmental Core** (27 hours)
- General Agronomy (19 hours)
- CSES 1011 Introduction to Crop, Soil, and Environmental Sciences
- CSES 2203/2201L Soil Science and lab
- CSES 4013 Advanced Crop Science
- CSES 4224 Soil Fertility with lab component
- CSES 4133 Weed ID, Morphology and Ecology
- ENTO 3013 Introduction to Entomology
- PLPA 3004 Principles of Plant Pathology with lab component
- HORT 2303 Introduction to Turfgrass Management
- CSES 3214 Soil Resources and Nutrient Cycles
- CSES 3312 Cotton Production
- CSES 3322 Soybean Production
- CSES 3332 Rice Production
- CSES 3342 Cereal Grain Production
- AGEC 4313 Agricultural Business Management

**Pest Management** (10 hours)
- ENTO 3013 Introduction to Entomology
- PLPA 3004 Principles of Plant Pathology
- CSES 4133 Weed ID, Morphology and Ecology

**Choose 9 hours from either Group C or Group D for a minor:**

**Group C (Pest Management):**
- CSES 4143 Principles of Weed Control
- PLPA 4103 Plant Disease Control
- ENTO 4123 Insect Pest Management or ENTO 4133 Advanced Applied Entomology

**Group D (Agricultural Business):**
- AGEC 2303 Introduction to Agribusiness
- AGEC 3403 Farm Business Management
- AGEC 3303 Food and Agricultural Marketing
- AGEC 3373 Futures and Options Markets
- AGEC 3413 Principles of Environmental Economics

**AGEC 4313 Agricultural Business Management**

**General Electives** (16-18 hours)

**Total hours**

**Crop Management Nine-Semester Degree Program**

Students wishing to follow the degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program.

**Fall Semester Year 1**
- ENGL 1013 Composition I
- MATH 1203 College Algebra or higher level math
- BIOL 1543/1541L Principles of Biology and lab
- History University Core Elective
- 3  CSES 1011 Introduction to CSES
- 14 Semester hours

**Spring Semester Year 1**
- CSES 2103/2101L Crop Science and lab
- BIOL 1613/1611L Plant Biology and lab
- ENGL 1023 Composition II
- COMM 1313 Fundamentals of Communication
- AGEC 1103 Agricultural Microeconomics
- 17 Semester hours

**Fall Semester Year 2**
- CHEM 1103/1101L Chemistry I and lab
- ENGL 2003 Advanced Composition or if exempt ENGL 3053 Technical & Report Writing – See page 41
- Social Science University Core Elective
- Fine Arts/Humanities University Core Elective
- 2-3 Select one (1) course from Group A on checklist
- 15-16 Semester hours

**Spring Semester Year 2**
- CHEM 1123/1121L Chemistry II and lab
- AGME 2903 Applications of Microcomputers or AGST 4023 Principles of Experimentation or STAT 2303 Principles of Statistics
- Social Science University Core Elective
- Fine Arts/Humanities University Core Elective
- 2-3 Select one (1) course from Group A on checklist
- 15-16 Semester hours

**Fall Semester Year 3**
- PLPA 3004 Principles of Plant Pathology with lab component
- ENTO 3013 Introduction to Entomology
- 2-4 Select one (1) course from Group B on checklist
- CSES 2323/2321L Soil Science and lab
- 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
- 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
ENGLISH (12-15 hours)

ENGL 1013 Composition I
ENGL 1023 Composition II
ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information

COMMUNICATIONS (12-15 hours)

ENGL 1013 Composition I
ENGL 1023 Composition II
ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
COMM 1313 Fundamentals of Communication
CSES 3023 or AGED 3142/3141L

SOCIAL SCIENCES (9 hours)

CSES 3513 Principles of Environmental Law
CSES 3533 Environmental Ethics
CSES 4603 Environmental Sociology

ENVIROMENTAL, SOIL, AND WATER SCIENCE (ESWS)

Mary C. Savin
ESWS Coordinator
115 Plant Sciences Building
479-575-5740

The Environmental, Soil, and Water Science major includes courses in areas such as environmental science, water quality, soil science, and water conservation, and the sustainable productivity of natural resources.

Requirements for a Major in Environmental, Soil, and Water Science (See page 40 for University Core and page 70 for B.S.A. requirements)

Communications (12-15 hours)

ENGL 1013 Composition I
ENGL 1023 Composition II
ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
COMM 1313 Fundamentals of Communication
CSES 3023 or AGED 3142/3141L

U.S. History and Government (3 hours)

Choose 3 hours from U.S. History University Core – See page 40

Mathematics and Statistics (6 hours)

MATH 2043 Survey of Calculus
AGST 4023 Principles of Experimentation or STAT 2023 Biostatistics or STAT 2303 Principles of Statistics

Physical, Chemical, and Biological Sciences (35-36 hours)

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 Ecosystem Assessment and lab
Biol 1613/1611L Plant Biology or CSES 1203 Introduction to Plant Science
Chem 1103/1101L University Chemistry I and lab
Chem 1123/1121L University Chemistry II and lab
Chem 2613/2611L Organic Physiological Chemistry and lab
Geol 1113/1111L General Geology and lab
Phys 2013/2011L College Physics I and lab

Fine Arts and Humanities (6 hours)

Choose 6 hours in two categories from “State Minimum Fine Arts/Humanities Core” (categories a and b) – See page 40

Social Sciences (9 hours)

Choose 9 hours from at least two listed fields of study – See page 40

ESWS Major Requirements (29-31 hours)

Environmental Science Core (11 hours)

CSES 1011 Introduction to ESWS
CSES 2203/2201L Soil Science and lab
CSES 1003 Environmental Science
CSES 3003 Introduction to Water Science

Soil Science Core (3-4 hours)

CSES 3214 Soil Resources with lab component
CSES 4224 Soil Fertility with lab component
CSES 4253 Soil Classification and Genesis with lab component
CSES/ENSC 4263 Environmental Soil Science

Water Science Core (3-4 hours)

ENSC 4023 Water Quality with lab component
GEOL 3333 Oceanography
GEOL 4033 Hydrogeology with lab component
Biol 4814 Limnology with lab component

Natural Resources Core (Choose 12 hours from at least 2 groups)

Methods/Techniques in Environmental Science
CSES 355V Soil Profile Descriptions
CSES/BENG 4803 Precision Agriculture
AGME 3153 Surveying in Agriculture and Forestry
ENSC 3603 GIS for Environmental Science
ENSC 4034 Analysis of Environmental Contaminants with lab component

Environment and 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 Environmental Soil and 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 chapter for university requirements of the program.
Minor in Crop Biotechnology (CPBT-M)

A student planning to minor in Crop Biotechnology must notify the program adviser for consultation and more detailed information. The Crop Biotechnology Minor consists of 18 hours of courses and to include the following:

- BIOL 2323 General Genetics or ANSC 3123 Principles of Genetics
- CHEM 3813 Introduction to Biochemistry
- CSES 402V Special Topics (two 1-hour courses taken in two different semesters)
- CSES 4103 Plant Breeding
- PLPA 4333 Biotechnology in Agriculture

Minor in Crop Management (CPMG-M)

A student planning to minor in Crop Management must notify the program adviser for consultation and more detailed information. The Crop Management Minor consists of 18 semester hours of 2000-level courses or above, including the following:

- CSES 3113 Forage Management
- CSES 3312 Cotton Production
- CSES 3322 Soybean Production
- CSES 3332 Rice Production
- CSES 3342 Cereal Grain Production

Group A:

- CSES 2203 Soil Science
- CSES 2003 Introduction to Weed Science
- CSES 2103 Crop Science

Group B:

- CSES 3203 General Microbiology and lab
- CHEM 3203/3201L Organic Physiological Chemistry and lab
- Natural Resources Core
- Soil Science or Natural Resources Core

Minor in Environmental, Soil, and Water Science (ESWS-M)

A student planning to minor in Environmental, Soil, and Water Science must notify the program adviser for consultation and more detailed information. The Environmental, Soil, and Water Science Minor consists of 18 hours to include the following:

Environmental science (6 hours)

- ENSC 1003 Environmental Science

Choose 3 hours from:

- AGEC 3413 Principles of Environmental Economics
- AGEC 3503 Agricultural Law I
- AGEC 3523 Environmental Science and Natural Resource Law
- BIOL 3863/3861L General Ecology and lab
- ENSC 3103 Plants and Environmental Restoration
- ENSC 3223/3221L Ecosystems Assessment and lab
- ENSC 3263 Environmental Soil and Water with lab component
- ENSC 3603 GIS for Environmental Science
- ENSC 3933 Environmental Ethics
- ENSC 4034 Analysis of Environmental Contaminants with lab component
- RSOC/SOCI 4603 Environmental Sociology

Soil Science (6 hours)

- CSES/ENSC 2203 Soil Science

Choose 3 hours from:

- CSES 3214 Soil Resources and Nutrient Cycles
- CSES 3222 Rice Production
- CSES 3224 Soil Fertility
- CSES 4243 Plant Anatomy

See page 334 for Crop, Soil, and Environmental Science (CSES) Courses and see page 344 for Environmental Science (ENSC) Courses.
Minor in Wildlife Habitat (WLHA-M)

A student planning to minor in Wildlife Habitat must notify the program adviser for consultation and more detailed information. The Wildlife Habitat Minor consists of 20 hours of courses to include the following:

Group A (13-14 hours):
- __BIOL 4734 Wildlife Management Techniques
- __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

Choose 6-7 hours from Groups B and C, choosing 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
- __CSES 462V Internship (with Arkansas Game and Fish Commission)

Group C:
- __AGEC 3413 Principles of Environmental Economics
- __BIOL 4763 Ornithology
- __BIOL 4833 Animal Behavior
- __CSES 2201L Soil Science Lab
- __CSES 355V Soil Profile Descriptions
- __CSES 4133 Weed ID, Morphology and Ecology
- __CSES 4253 Soil Classification and Genesis
- __ENTO 3013 Introduction to Entomology
- __GEOG 3003 Conservation of Natural Resources
- __GEOG 3343 Natural Regions of North America
- __GEOG 4093 Geography of Arkansas
- __RECR 1023 Recreation and Natural Resources

A maximum of 9 hours of CSES or ENSC coursework will be allowed to count toward the student’s major as well as the Wildlife Habitat minor.

ENTOMOLOGY (ENTO)

Robert N. Wiedenmann
Head of the Department
319 Agriculture Building
479-575-2451
http://entomology.uark.edu/
- University Professors Meisch, Stephen
- Professors Johnson (D.T.), Kring, Lorenz, Luttrell, McLeod, Steelman, Steinkraus, Teague, Wiedenmann
- Adjunct Professors Billings, Leonard, Reese, Thompson, Williamson
- Associate Professor Goggin, Szalanski
- Assistant Professors Akin, Bernhardt, Dowling, Hopkins, Loftin, Studebaker
- Curator Barnes

Entomology is the branch of science concerned with the study of insects and related organisms. It involves studies of their biology, structure, identification, economic significance, and population management. The major emphasis of the curriculum is understanding insect biology and applying that knowledge in an integrated approach to insect-pest management.

Entomology is a graduate degree at the University of Arkansas. Undergraduate students interested in entomology can pursue a minor in entomology or pest management. The requirements for a minor in pest management (PMGT) are listed on page 88.

Minor in Entomology (ENTO-M)

The Entomology minor will consist of a minimum of 15 semester hours to include the following:
- __ENTO 3013 Introduction to Entomology
- __ENTO 4024 Insect Diversity and Taxonomy

Choose 3 courses from:
- __ENTO 4013 Insect Behavior and Chemical Ecology with lab component
- __ENTO 4043 Apiculture with lab component
- __ENTO 4053 Insect Ecology with lab component
- __ENTO 4133 Advanced Applied Entomology with lab component
- __ENTO 400V Special Problems

SEE PAGE 345 FOR ENTOMOLOGY (ENTO) COURSES.

FOOD SCIENCE (FDSC)

Jean-François Meullenet
Interim Head of the Department
N-201 Food Science Building
479-575-4605
http://www.foodscience.uark.edu/
- University Professors Hettiarachachy, Siebenmorgen
- Professors Buescher, Crandall, Howard, Meullenet, Proctor, Ricke, Wang
- Assistant Professors Devareddy, Lee, Morawicki
- Adjunct Faculty Members Ahn, Apple (N.), Brady, Foote, King, Li, Marcy, Morris (M.), Owens-Hanning, 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 70 for B.S.A. requirements)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1013</td>
<td>Composition I</td>
</tr>
<tr>
<td>ENGL 1023</td>
<td>Composition II</td>
</tr>
<tr>
<td>COMM 1313</td>
<td>Fundamentals of Communication</td>
</tr>
<tr>
<td>AGEC 1103</td>
<td>Ag Microeconomics</td>
</tr>
<tr>
<td>FDSC 1011</td>
<td>Food Science Orientation</td>
</tr>
<tr>
<td>FDSC 1103</td>
<td>Introduction to Food Science</td>
</tr>
<tr>
<td>FDSC 3103</td>
<td>Principles of Food Processing and lab</td>
</tr>
<tr>
<td>FDSC 4203</td>
<td>Quality Evaluation and Control and lab</td>
</tr>
<tr>
<td>FDSC 4304</td>
<td>Food Chemistry and lab</td>
</tr>
<tr>
<td>FDSC 4413</td>
<td>Sensory Evaluation and Process Development and lab</td>
</tr>
<tr>
<td>FDSC 4713</td>
<td>Food Product &amp; Process Development and lab</td>
</tr>
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</table>

**General Electives** (15-18 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FDSC 2503</td>
<td>Food Safety and Sanitation</td>
</tr>
<tr>
<td>FDSC 3202</td>
<td>Introduction to Food Law</td>
</tr>
<tr>
<td>FDSC 431V</td>
<td>Internship in Food Science</td>
</tr>
<tr>
<td>WCOB 1120</td>
<td>Computer Competency Requirement (AGME 2903 may be taken instead, but hours will be counted toward elective hours)</td>
</tr>
<tr>
<td>AGEC 2143</td>
<td>Agribusiness Financial Records or WCOB 1023 Business Foundations</td>
</tr>
<tr>
<td>AGEC 4313</td>
<td>Agricultural Business Management or WCOB 2033 Acquiring and Managing Human Capital</td>
</tr>
<tr>
<td>AGEC 3303</td>
<td>Food and Agricultural Marketing or MKTG 3433 Introduction to Marketing Strategy</td>
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**Additional Requirements for Food Science Concentration** (15 hours)

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HESC 1213</td>
<td>Nutrition in Health</td>
</tr>
<tr>
<td>FDSC 4114</td>
<td>Food Analysis with lab component</td>
</tr>
<tr>
<td>FDSC 4124</td>
<td>Food Microbiology with lab component</td>
</tr>
<tr>
<td>FDSC 4754</td>
<td>Eng. Prin. of Food Processing with lab component</td>
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</table>

**Additional Requirements for Food Technology Concentration** (23 hours)

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>FDSC 4124</td>
<td>Food Microbiology with lab component</td>
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<tr>
<td>FDSC 4713</td>
<td>Food Product &amp; Process Development and lab</td>
</tr>
<tr>
<td>FDSC 4754</td>
<td>Eng. Prin. of Food Processing with lab component</td>
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</table>

**Food Science Core** (21 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AFLS 1011</td>
<td>Freshman Orientation</td>
</tr>
<tr>
<td>FDSC 1011</td>
<td>Food Science Orientation</td>
</tr>
<tr>
<td>FDSC 1103</td>
<td>Introduction to Food Science</td>
</tr>
<tr>
<td>FDSC 3103</td>
<td>Principles of Food Processing and lab</td>
</tr>
<tr>
<td>FDSC 4203</td>
<td>Quality Evaluation and Control and lab</td>
</tr>
<tr>
<td>FDSC 4304</td>
<td>Food Chemistry and lab</td>
</tr>
<tr>
<td>FDSC 4413</td>
<td>Sensory Evaluation and Process Development and lab</td>
</tr>
<tr>
<td>FDSC 4713</td>
<td>Food Product &amp; Process Development and lab</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>4</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3</td>
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<td>3</td>
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<tr>
<td>3</td>
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<tr>
<td>3</td>
</tr>
<tr>
<td>FDSC concentration:</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
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) |
| 3 | 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 |
| 3 | 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 |
| 14-15 | 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 |
| 4 | BIOL 2013/2011L General Microbiology and lab |
| 3 | HESC 1213 Nutrition in Health |
| 3 | FDTN concentration: |
| 3 | MATH 2043 Survey of Calculus |
| 3 | General Elective |
| 16-17 | Semester hours |

Fall Semester Year 3

| 6-7 | FDSC 3103 Principles of Food Processing with lab component and FDSC 4203 Quality Evaluation and Control with lab component (even years) or FDSC 4413 Sensory Evaluation of Food with lab component and FDSC 4304 Food Chemistry with lab component (odd years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 4 | FDSC 4124 Food Microbiology with lab component (even years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 4 | FDSC 4713 Food Product and Process Development with lab component |
| 0-3 | Business Electives |
| 0-2 | FDSC 3202 Introduction to Food Law (even years) |
| 3 | General Elective |
| 0-3 | FDSC 4713 Food Product and Process Development with lab component (odd years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 4 | FDSC 4124 Food Microbiology with lab component (even years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 3 | FDSC 2503 Food Safety and Sanitation |
| 3 | AGEC 4313 Agricultural Business Management or WCOB 2033 Acquiring and Managing Human Capital |
| 3 | AGEC 3303 Food and Agricultural Marketing or MKTG 3433 Intro to Marketing Strategy |
| 15-16 | Semester hours |

Spring Semester Year 3

| 3 | ENGL 2003 Advanced Composition or Exemption Elective |
| 0-3 | FDSC 4713 Food Product and Process Development with lab component (odd years) |
| 3 | General Elective |
| 0-4 | FDSC 4124 Food Microbiology with lab component (even years) |
| 4 | FDSC 4754 Engineering Principles of Food Processing with lab component (odd years) |
| 3 | AGED 3142/3141L Agri Communications and lab |
| 0-2 | FDSC 3202 Introduction to Food Law (even years) |
| 3 | Business Electives |
| 13-15 | Semester hours |
| 124 | Total hours |

Summer Semester Year 3

| 3 | FDSC 431V Internship in Food Science |
| 3 | Semester hours |

Fall Semester Year 4

| 6-7 | FDSC 3103 Principles of Food Processing with lab component and FDSC 4203 Quality Evaluation and Control with lab component (even years) or FDSC 4413 Sensory Evaluation of Food with lab component and FDSC 4304 Food Chemistry with lab component (odd years) |
| 3 | General Elective |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 4 | FDSC 4124 Food Microbiology with lab component (even years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 3 | FDSC 4713 Food Product and Process Development with lab component |
| 3 | AGEC 3303 Food and Agricultural Marketing or MKTG 3433 Intro to Marketing Strategy |
| 15-16 | Semester hours |

Spring Semester Year 4

| 0-3 | FDSC 4713 Food Product and Process Development with lab component (odd years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 0-4 | FDSC 4124 Food Microbiology with lab component (even years) |
| 4 | FDSC 4114 Food Analysis with lab component (even years) or FDSC 4754 Engineering Principles of Food Processing with lab component (odd years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 0-3 | FDSC 4713 Food Product and Process Development with lab component (odd years) |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | CHEM 2021L University Chemistry II and lab |
| 0-3 | General Elective |
| 0-3 | FDSC 4713 Food Product and Process Development with lab component |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 4 | FDSC 4124 Food Microbiology with lab component |
| 3 | University Core in Fine Arts/Humanities or Social Science or History |
| 3 | General Elective |
| 3 | FDSC 2503 Food Safety and Sanitation |
| 3 | AGEC 4313 Agricultural Business Management or WCOB 2033 Acquiring and Managing Human Capital |
| 3 | AGEC 3303 Food and Agricultural Marketing or MKTG 3433 Intro to Marketing Strategy |
| 15-16 | Semester hours |

Minor in Food Science (FDSC-M)

The Food Science Minor consists of 18 semester hours to include:
- FDSC 3103 Principles of Food Processing with lab component
- FDSC 4124 Food Microbiology with lab component
- FDSC 4304 Food Chemistry with lab component
Choose 7 hours from:
- FDSC 4124 Food Microbiology with lab component (even years)
- FDSC 4114 Food Analysis with lab component (even years) or FDSC 4754 Engineering Principles of Food Processing with lab component (odd years)
- FDSC 4413 Sensory Evaluation of Food with lab component and FDSC 4304 Food Chemistry with lab component (odd years)

A student planning to minor in food science must consult a Department of Food Science adviser.

SEE PAGE 346 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 Professors Clark, Morelock
- Professors Evans, Hensley, Murphy, Robbins, Richardson, Rom (C.)
- Associate Professors Andersen, Carson, García, 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, 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 growth, development and use of new technologies, and the operation of a horticultural enterprise. In consultation with an academic adviser and mentor, students may individually focus their academic programs through required and elective courses to focus training in specialized areas such as production, greenhouse and floriculture sciences, turf management, golf course supervision, nursery production and management, crop production, pest management, sales and support services, education and training, and horticultural consulting. An internship in the industry is required to gain 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 nurseries, 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, agencies such as parks and recreation. Job opportunities for students studying horticulture, landscape architectural firms, private and public gardens, and public agencies such as parks and recreation.

**Requirements for a Major in Horticulture, Landscape and Turf Sciences**

(See page 40 for University Core and page 70 for B.S.A. requirements)

**Communications** (15 hours)
- _ENGL 1013 Composition I_
- _ENGL 1023 Composition II_
- _ENGL 2003 Advanced Composition or Exemption Communication-Intensive Elective – See page 41 for exemption information_
- _COMM 1313 Fundamentals of Communication_
- _Communication Intensive Elective (3 hours) See adviser_

**U.S. History and Government** (3 hours)
Choose 3 hours from U.S. History University Core – See Page 40

**Mathematics** (3 hours)
- _MATH 1203 College Algebra (or higher level course)_

**Physical and Biological Sciences** (17-20 hours)
- _BIOL 1543/1541L Principles of Biology and lab_
- _BIOL 1613/1611L Plant Biology and lab_
- _CHEM 2613/2611L Organic Physiological Chemistry and lab_
Choose either:
- _CHEM 1074/1071L Fundamentals of Chemistry and lab_
- _CHEM 1103/1101L University Chemistry I and lab and_
- _CHEM 1123/1121L University Chemistry II and lab_

**Fine Arts and Humanities** (6 hours)
Choose 6 hours in two categories from "State Minimum Fine Arts, Humanities Core" (categories a and b) – See Page 40.

**Social Sciences University Core Courses** (9 hours)
Choose 9 hours from at least two listed fields of study. Of these, 3 hours must be in AGEC or ECON – See Page 40

**Horticulture Core Requirements** (21-22 hours)

**Horticulture Electives** (Choose 18 hours)
- _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 3303 Vegetable Crops_
- _HORT 3403 Turfgrass Management with lab component_
- _HORT 4033 Professional Landscape Installation and 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 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 400V Horticulture Special Problems_
- _HORT 401V Horticulture Special Topics_

**Discipline-related electives** (Choose 12 hours)
- _AGME 3102/3101L Small Power Units and Turf Equipment and lab_
- _AGME 3153 Surveying in Agriculture and Forestry_
- _AGME 4973 Irrigation with lab component_
- _ANSC 3123 Principles of Genetics_
- _LARC 3914 Planting Design I_
- _LARC 3113 Design Communications_
- _PHYS 1023/1021L Physics & Human Affairs and lab (or higher) or WCOB (up to 9 hours) or any AGEC, BIOL, CHEM, CSES, ENSC, ENTO, HORT, PLPA class not taken in any other elective groups._

**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 chapter for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>1</td>
<td>AFLS 1011 Freshman Orientation</td>
</tr>
<tr>
<td>3</td>
<td>University Core MATH 1203 College Algebra</td>
</tr>
<tr>
<td>3</td>
<td>University Core ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td>4</td>
<td>University Core BIOL 1543/1541L Principles of Biology and lab</td>
</tr>
<tr>
<td>14</td>
<td>Semester hours</td>
</tr>
</tbody>
</table>
### Minor in Horticulture (HORT-M)

The minor will consist of 18 hours to include:
- **HORT 2003 Principles of Horticulture with lab component**
- **HORT 4403 Plant Propagation with lab component**
- Choose 3 hours from:
  - **HORT 2303 Introduction to Turfgrass Management**
  - **HORT 3303 Vegetable Crops**
  - **HORT 3103 Woody Landscape Plants with lab component**
  - **HORT 3113 Herbaceous and Indoor Plant Materials with lab component**
- **HORT 4703/4701L Greenhouse Management and Controlled Environment Horticulture and lab**
- **HORT 4803/4801L Floriculture and lab**
- **LARC 3734 Landscape Architecture Construction III**

### Minor in Turf Management (TURF-M)

The minor will consist of 19 hours to include:
- **CSES 2203/2201L Soil Science and lab**
- Choose 6 hours from:
  - **HORT 2303 Introduction to Turfgrass Management**
  - **HORT 3403 Commercial and Residential Turfgrass Management with lab component**
- **HORT 4903 Golf and Sports Turfgrass Management with lab component**
- **AGME 4973 Irrigation with lab component**
- **AGME 3102/3101L Small Power Units/Turf Equipment and lab**
- See Page 356 for Horticulture (HORT) Courses.
PLANT PATHOLOGY (PLPA)

Rick Bennett
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, Korth, Lee, Lim, Milus, Rothrock, Rupe
- Associate Professors Coker, Spradley
- Assistant Professors Bluhm, Monfort, Vann, Tzanetakis,
- Research Assistant Professor Sayler
- Adjunct Assistant Professors Cartwright (K.), Xia
- Adjunct Associate Professors Brooks, Chen, Jia

Plant pathology is the study of 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.

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 70 for degree requirements.

Minor in Plant Pathology (PLPA-M)

A student planning to minor in plant pathology should notify the Department of Plant Pathology and consult an adviser. A minor in Plant Pathology consists of 19 hours to include the following:
- PLPA 3004 Principles of Plant Pathology
- PLPA 400V Research (3 hours)
  Choose 3 hours from:
  - PLPA 4103 Plant Disease Control
  - PLPA 4304 Applied Plant Disease Management
  Choose 9 hours from:
  - BIOL 4233 Genomics and Bioinformatics
  - BIOL 4304 Plant Physiology
  - BIOL 4353 Ecological Genetics
  - BIOL 4424 Mycology
  - BIOL 4753 General Virology
  - PLPA 4333 Biotechnology in Agriculture

SEE PAGE 380 FOR PLANT PATHOLOGY (PLPA) COURSES

PEST MANAGEMENT (PMGT)

Craig Rothrock
Program Coordinator
206 Plant Sciences Building
479-575-2445

- All faculty in the Department of Plant Pathology, Entomology, and the discipline of Weed Science in the Department of Crop, Soil, and Environmental Sciences are faculty in the discipline of Pest Management.

Minor in Pest Management (PMGT-M)

Students interested in this area of study must declare their intention to the program coordinator. A minor in Pest Management consists of 19-20 hours to include the following:
- CSES 2003 Introduction to Weed Science
- ENTO 3013 Introduction to Entomology
- PLPA 3004 Principles of Plant Pathology
- PLPA 4103 Plant Disease Control
  Choose 3 hours from:
  - CSES 4133 Weed Identification, Morphology, and Ecology
  - CSES 4143 Principles of Weed Control
  Choose 3 hours from:
  - ENTO 4024 Insect Diversity and Taxonomy
  - ENTO 4123 Insect Pest Management
  - ENTO 4133 Advanced Applied Entomology

POULTRY SCIENCE (POSC)

Keith Lusby
Interim Head of the Department
0114 Poultry Science Center
479-575-4952
http://www.poultryscience.uark.edu/
- University Professors Chapman, Waldroup (PW)
- Professors Anthony, Birdie, Coon, Erf, Goodwin, Hargis, Jones, Kuerzel, Li, Marcy, Ricke, Slavik, Wideman
- Research Professors Donohue (A.), Huff (G.), Huff (W.), Rath
- Adjunct Professors Bristor, Haggard, Keck, Plue, Rhoads, Rosen, Steelman, Waldroup (A.), Zelenka
- Associate Professors Clark, Donohue (D.), Kwon, Owens, Watkins
- Adjunct Associate Professors Story, Meullenet
- Assistant Professors Bramwell, Kong
- 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, 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 70 for B.S.A. requirements)
- Communications (15 hours)
  - ENGL 1013 Composition I
  - ENGL 1023 Composition II
  - ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing
  - Exemption Communication Elective – See page 41 for exemption information
  - COMM 1313 Fundamentals of Communication
  - Communication Intensive Elective from an approved course list. See adviser

- U.S. History or Government (3 hours)
  Choose 3 hours from U.S. History University Core – See Page 40
- Mathematics and Statistics (6-7 hours)
  - MATH 103 College Algebra or MATH 2043 Survey of Calculus
Poultry Science Eight-Semester Degree Program

Students wishing to follow the degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program.

Fall Semester Year 1

1. University Core BIOL 1543/1541L Principles of Biology and lab
2. University Core ENGL 1013 Composition I
3. COMM 1313 Fundamentals of Communication
4. POSC 1023 Introduction to Poultry Science and Careers with lab component
5. FNAR/Humanities University Core Elective
6. AFILS 1011 Freshman Orientation
7. Semester hours

Spring Semester Year 1

1. POSC 2553 Poultry Production and Management with lab component
2. University Core ENGL 1023 Composition II
3. University Core MATH 1203 College Algebra or higher level math
4. FNAR/Humanities University Core Elective
5. Social Science Core Elective
6. 15 Semester hours

Fall Semester Year 2

1. ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective
2. University Core CHEM 1103/1101L Chemistry I and lab or CHEM 1074/1071L Fundamentals of Chemistry and lab
3. History University Core Elective
4. Social Science Core Elective
5. Social Science Core AGEC 1103 Principles of Agricultural Microeconomics
6. Discipline-Related Elective
7. 16-17 Semester hours

Spring Semester Year 2

1. Communication Intensive Elective
2. CHEM 2613/2611L Organic Physiology Chemistry and lab or CHEM 3603/3601L Organic Chemistry and lab and CHEM 3613/CHEM 3611L Organic Chemistry II and lab
3. Discipline-Related Elective
4. Social Science Core Elective
5. 17 Semester hours

Fall Semester Year 3

1. BIOE 2033/2031L General Microbiology and lab
2. CHEM 3603/3601L Organic Chemistry and lab or CHEM 1103/1101L Chemistry I and lab and CHEM 1123/1121L Chemistry II and lab (if CHEM 1103/1101L taken previously) or General Elective
3. POSC 4353 Poultry Breeding or POSC/ANSC 3123 Principles of Genetics
4. POSC Elective (from PHYS 2013/2011L, POSC 3032, AGEC 2303, POSC 4314)
5. 12-15 Semester hours

Spring Semester Year 3

1. University Core AGEC 1103 Principles of Agricultural Microeconomics
2. University Core ENGL 1023 Composition II
3. University Core MATH 1203 College Algebra or higher level math
4. University Core ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective
5. History University Core Elective
6. Social Science Core Elective
7. Social Science Core AGEC 1103 Principles of Agricultural Microeconomics
8. Discipline-Related Elective
9. Semester hours

Fall Semester Year 4

1. CHEM 3613/3611L Organic Chemistry II and lab (if CHEM 3603/3601L taken previously) or General Elective
2. POSC Elective (from PHYS 2033/2031L, College Physics II and lab, POSC 3042 Animal Physiology II; AGEC 2303 Introduction to Agribusiness, POSC 4213 Integrated Poultry Management)
3. Discipline-Related Elective
4. General Elective or BIOL 2323 General Genetics
5. 14-17 Semester hours

Spring Semester Year 4

1. POSC 3223 Poultry Diseases
2. POSC Elective (from PHYS 2013/2011L, POSC 3032, AGEC 2303, POSC 4314) or General Elective
3. Upper-Division POSC Elective
4. 14-16 Semester hours

Summer Semester Year 5

1. Exemption Elective
2. 3 Semester hours

Fall Semester Year 5

1. University Core ENGL 1013 Composition I
2. University Core MATH 1203 College Algebra or higher level math
3. University Core ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective
4. History University Core Elective
5. Social Science Core Elective
6. Social Science Core AGEC 1103 Principles of Agricultural Microeconomics
7. Discipline-Related Elective
8. Semester hours

Spring Semester Year 5

1. University Core AGEC 1103 Principles of Agricultural Microeconomics
2. University Core ENGL 1023 Composition II
3. University Core MATH 1203 College Algebra or higher level math
4. University Core ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective
5. History University Core Elective
6. Social Science Core Elective
7. Social Science Core AGEC 1103 Principles of Agricultural Microeconomics
8. Discipline-Related Elective
9. 17 Semester hours

Fall Semester Year 6

1. University Core ENGL 1013 Composition I
2. University Core MATH 1203 College Algebra or higher level math
3. University Core ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective
4. History University Core Elective
5. Social Science Core Elective
6. Social Science Core AGEC 1103 Principles of Agricultural Microeconomics
7. Discipline-Related Elective
8. Semester hours

Spring Semester Year 6

1. POSC 4343 Poultry Nutrition
2. 3 Semester hours

Summer Semester Year 7

1. Exemption Elective
2. 3 Semester hours

Fall Semester Year 7

1. University Core ENGL 1013 Composition I
2. University Core MATH 1203 College Algebra or higher level math
3. University Core ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing or Exemption Elective
4. History University Core Elective
5. Social Science Core Elective
6. Social Science Core AGEC 1103 Principles of Agricultural Microeconomics
7. Discipline-Related Elective
8. Semester hours

Summer Semester Year 8

1. Exemption Elective
2. 3 Semester hours

University of Arkansas, Fayetteville
Minor in Poultry Science (POSC-M)
A student planning to minor in poultry science should consult a departmental advisor. The minor consists of 15 hours to include the following:

- POSC 1023 Introduction to Poultry Science and Careers
- POSC 2353 Poultry Production and Management
- POSC 4314 Egg and Meat Technology
- Choose 5 hours from any POSC course.

See page 382 for poultry science (POSC) courses.

Requirements for Food Safety Certificates of Proficiency

Steve Seideman
Program Coordinator
2560 North Young Street
479-575-4421

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:
- FDSC 2503 Food Safety and Sanitation
- FDSC 3202 Introduction to Food Law
- HLSC 4623 Human Diseases
- POSC 2003 Fundamentals of Food Microbiology
- POSC 4034 Statistical Process Control in the Food Industry

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
- FDSC 4823 Principles of Food Microbiology
- HLSC 4613 Principles of Epidemiology
- INEG 4323 Quality Engineering and Management
- POSC 4023 Advanced Topics in Food Safety 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, Foote, Gentry, Harrington, Killian, Miller, Robertson, Southward, Webb
- Assistant Professors Moore, Ogbeide, Sattar, Smith, Takigiku, Wallack, Way
- Instructors Baldwin, Crandall, Harding, Powell

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 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 70 for college academic requirements 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 70 for B.S.H.E.S. requirements)

Communications (12 hours)
- ENGL 1013 Composition I
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition or Exemption Elective of
a COMM, JOUR, ENGL, or foreign language – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication

U.S. History or Government (3 hours)
- Choose 3 hours from U.S. History University Core – See page 40

Mathematics (6 hours)
- MATH 1203 College Algebra
- MATH 2053 Finite Mathematics or higher level course

Physical and Biological Sciences (9 hours)
- BIOL 1543/1541L Principles of Biology and lab
- CHEM 1074/1071L Fundamentals of Chemistry and lab (Students may substitute two courses in general chemistry, if desired)

Fine Arts/Humanities (6 hours)
- 3 hours selected from "State Minimum Arts Core" (category a) – See page 40
- 3 hours selected from “State Minimum Humanities Core” (category b) – See page 40

Social Sciences (9 hours)
- ECON 2143 Basic Economics
- PSYC 2003 General Psychology
- ANTH 1023 Intro to Cultural Anthropology or SOCI 2013 General Sociology

Foreign Language (6 hours)
- Must be consecutive courses in the same language

APST Major Requirements:
- Human Environmental Sciences (55 hours)
  - HESC 1501 Orientation
  - HESC 1013 Introduction to Clothing Concepts
  - HESC 1023 Introduction to Apparel Production
  - HESC 1053 Computer-Based Methods-Apparel
  - HESC 2013 Quality Assessment of Apparel
  - HESC 2023 Visual Merchandising
  - HESC 2053 Intro to Textile Science with lab component
  - HESC 3003 Apparel Production
  - HESC 3013 Introductory Fashion Merchandising
  - HESC 3033 Fashion Merchandising Methods
  - HESC 4023 Advanced Apparel Merchandising
  - HESC 4033 Advanced Textile Study
  - HESC 4043 History of Apparel
  - HESC 4053 Contemporary Apparel
  - HESC 4063 Advanced Apparel Production
  - HESC 4071 Apparel Studies Pre-Internship
  - HESC 4082 Apparel Studies Internship
  - HESC 4091 Apparel Studies Pre-Study Tour
  - HESC 4092 Apparel Studies Study Tour
  - HESC 1213 Nutrition
  - HESC 2413 Family Relations
  - MKTG 3433 Introduction to Marketing Strategy
  - Foreign Language Elective

General Electives (9 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 chapter for university requirements of the program. A description of HESC courses is listed on page 351.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>3 University Core ENGL 1013 Composition</td>
<td>3 HESC 1013 Intro to Clothing Concepts</td>
</tr>
<tr>
<td>3 University Core MATH 1203 College Algebra</td>
<td>1 HESC 1501 Orientation to HESC</td>
</tr>
<tr>
<td>3 University Core ARTS Category a</td>
<td>3 HESC 1053 Computer Based Methods for Apparel</td>
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<tr>
<td>16 Semester hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 University Core ENGL 1023 Composition II</td>
<td>1 HESC 2023 Visual Merchandising and Fashion Promotion</td>
</tr>
<tr>
<td>3 MATH 2053 Finite Math or higher level math</td>
<td>3 HESC 2413 Family Relations</td>
</tr>
<tr>
<td>3 HESC 1023 Introduction to Apparel Production</td>
<td>3 HESC 2053 Introduction to Textile Science with lab component</td>
</tr>
<tr>
<td>15 Semester hours</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
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<tbody>
<tr>
<td>3 CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
<td>3 University Core ECON 2143 Basic Economics</td>
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<tr>
<td>3 University Core PSYC 2003 General Psychology</td>
<td>3 University Core Elective ANTH 1023 Intro to Cultural Anthropology or SOCI 2013 General Sociology</td>
</tr>
<tr>
<td>3 HESC 2013 Quality Assessment of Apparel</td>
<td>1 HESC 4901 Apparel Studies Pre-Study Tour</td>
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<tr>
<td>16 Semester hours</td>
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<tr>
<th>Summer Semester Year 2</th>
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<tbody>
<tr>
<td>2 HESC 4912 Apparel Studies Study Tour</td>
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<tr>
<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
<td>3 HESC 3003 Apparel Production</td>
</tr>
<tr>
<td>3 HESC 3013 Introduction to Fashion Merchandising</td>
<td>3 HESC 3013 Apparel Production</td>
</tr>
<tr>
<td>3 University Core BIOL 1543/1541L Principles of Biology and lab</td>
<td>1 HESC 4071 Apparel Studies Pre-Internship</td>
</tr>
<tr>
<td>3 MKTG 3433 Introduction to Marketing Strategy</td>
<td>16 Semester hours</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 2003 Advanced Composition or Exemption Elective</td>
<td>3 HESC 4023 Advanced Apparel Merchandising</td>
</tr>
<tr>
<td>3 HESC 3033 Fashion Merchandising Methods</td>
<td>3 HESC 4043 History of Apparel</td>
</tr>
<tr>
<td>3 Foreign Language Elective</td>
<td>3 HESC 4063 Advanced Apparel Production</td>
</tr>
<tr>
<td>3 Humanities University Core Elective</td>
<td>6 General Electives</td>
</tr>
<tr>
<td>16 Semester hours</td>
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</table>

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<thead>
<tr>
<th>Summer Semester Year 3</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>2 HESC 4082 Apparel Studies Internship</td>
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<table>
<thead>
<tr>
<th>Fall Semester Year 4</th>
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</thead>
<tbody>
<tr>
<td>3 HESC 4023 Advanced Apparel Merchandising</td>
<td>1 HESC 4053 Contemporary Apparel</td>
</tr>
<tr>
<td>3 HESC 4043 History of Apparel</td>
<td>3 AGED 4243 Graphic Design in AFLS</td>
</tr>
<tr>
<td>3 HESC 4063 Advanced Apparel Production</td>
<td>3 HESC 4033 Advanced Textile Study</td>
</tr>
<tr>
<td>3 General Elective</td>
<td>12 Semester hours</td>
</tr>
<tr>
<td>124 Total hours</td>
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</tbody>
</table>
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)
- ENGL 1013 Composition I
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
- ENGL 3053 Technical and Report Writing or JOUR 3123 Feature Writing
- AGED 3142/3141L Agri Communications and lab
- COMM 1313 Fundamentals of Communication

**U.S. History or Government** (3 hours)
Choose 3 hours from U.S. History University Core – See page 40

**Mathematics University Core Course** (3 hours)
- MATH 1203 College Algebra or MATH 1213 Plane Trigonometry

**Physical and Biological Sciences** (24-27 hours)
Choose either:
- CHEM 1103/1101L University Chemistry I and lab and CHEM 1123/1121L University Chemistry II and lab
- BIOL 2213/2211L Human Physiology and lab
- BIOL 2443/2441L Human Anatomy and lab

**Human Environmental Sciences (50 hours)**
- HESC 1201 Introduction to Dietetics and Nutrition
- HESC 1213 Nutrition in Health
- HESC 2112/2111L Foods I and lab
- HESC 3203 Nutrition for Health Professionals and Educators
- HESC 3213 Dietetic and Nutrition Practice: Tools and Applications
- HESC 4263 Food Service Purchasing
- HESC 4273 Medical Nutrition Therapy I with lab component
- HESC 425V Food and Nutrition Seminar (1 hour)
- HESC 4243 Community Nutrition
- HESC 4623 Selection and Layout of Food Service Equipment
- AGST 4023 Principles of Experimentation or Equivalent Elective

**General Electives** (9-15 hours)
Recommend:
- ARTS 1313 Two-Dimensional Design
- 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 chapter 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</td>
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<tr>
<td>3</td>
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<tr>
<td>1</td>
</tr>
<tr>
<td>Semester &amp; Year</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
</tbody>
</table>
| **Spring Semester Year 1** | 4 CHEM 1123/1121L University Chemistry II and lab  
3 ENGL 1023 Composition II  
4 BIOL 1543/1541L Principles of Biology and lab  
3 Elective – Rec: HESC 2203 Nutrition for Exercise and Sport or Elective  
1 PEAC or DEAC Elective |
| **Fall Semester Year 1** | 3 HESC 2112/2111L Foods I and lab  
2 ANSC 3032 Animal Physiology I  
3 PSYC 2003 General Psychology  
3 ENGL 2003 Advanced Composition or Elective  
3 COMM 1313 Fundamentals of Communication  
1 PEAC or DEAC Elective |
| **Spring Semester Year 2** | 4 CHEM 2613/2611L Organic Physiological Chemistry and lab  
3 HESC 2413 Family Relations  
2 ANSC 3042 Animal Physiology II  
3 HESC 3203 Nutrition for the Health Professional & Educator  
3 Fine Arts & Humanities University Core |
| **Fall Semester Year 2** | 3 CHEM 3813 Introduction to Biochemistry  
3 HESC 2603 Food Service Purchasing  
3 HESC 3213 Dietetic & Nutrition Practice  
3 HESC 3653 Food Systems Management  
3 General Elective |
| **Spring Semester Year 3** | 4 BIOL 2013/2011L General Microbiology and lab  
3 Communications Intensive Elective: ENGL 3053 Technical and Report Writing, JOUR 3123 Feature Writing or AGED 3142/3141L Agri Communications and lab  
3 AGST 4023 Principles of Experimentation or Equivalent Elective  
3 HESC 4103 Experimental Foods with lab component  
3 U.S. History University Core Elective |
| **Fall Semester Year 3** | 16 Semester hours |
| **Spring Semester Year 4** | 4 HESC 3604 Food Preparation for the Hospitality Industry with lab component  
3 HESC 4213 Advanced Nutrition  
4 HESC 4264 Medical Nutrition Therapy I with lab component  
3 HESC 4223 Nutrition During the Life Cycle  
3 Social Science Core Elective |
| **Fall Semester Year 4** | 3 HESC 4273 Medical Nutrition Therapy II  
3 HESC 4623 Selection & Layout of Food Service Equipment  
1 HESC 425V Food and Nutrition Seminar  
3 HESC 4243 Community Nutrition  
3 General Elective |
| **Spring Semester Year 5** | 13 Semester hours |
| **Total Hours** | 124 |

**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)
  - ENGL 1013 Composition I  
  - ENGL 1023 Composition II  
  - ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information  
  - ENGL 3053 Technical and Report Writing or  
  - JOUR 3123 Feature Writing or  
  - AGED 3142/3141L Agri Communications and lab  
  - COMM 1313 Fundamentals of Communication

- **U.S. History University Core Course** (3 hours)
  - Choose 3 hours from U.S. History University Core – See page 40

- **Mathematics University Core Course** (3 hours)
  - MATH 1203 College Algebra or higher level math

- **Science University Core Courses and Departmental Requirements** (24-27 hours)
  - Choose either:
    - CHEM 1074/1071 Fundamentals of Chemistry and lab or  
    - CHEM 1103/1101L University Chemistry I and lab  
    - CHEM 1123/1121L University Chemistry II and lab
  - Choose either:
    - BIOL 2213/2211L Human Physiology and lab  
    - BIOL 2443/2441L Human Anatomy and lab or  
    - BIOL 1543/1541L Principles of Biology and lab  
    - ANSC 3032 Animal Physiology I  
    - ANSC 3042 Animal Physiology II  
  - And take:
    - CHEM 2613/2611L Organic Physiological Chemistry and lab  
    - CHEM 3813 Introduction to Biochemistry  
    - BIOL 2213/2211L General Microbiology and lab

- **Physical Education** (2 hours)
  - Choose 6 hour in two categories from “State Minimum Arts/Humanities Core” (categories a and b) – See page 40

- **Social Sciences University Core Courses** (9 hours)
  - PSYC 2003 General Psychology  
  - HESC 2413 Family Relations  
  - Choose 3 hours from Social Sciences University 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 1213 Nutrition in Health  
  - HESC 1501 Orientation to HESC  
  - HESC 2112/2111L Foods I and lab  
  - HESC 2203 Nutrition for Exercise and Sport  
  - HESC 2603 Food Service Purchasing  
  - HESC 3203 Nutrition for Health Professionals and Educators  
  - HESC 3213 Dietetic and Nutrition Practices: 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
### 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 during the summer and on part-time jobs during the school year. This work experience must be completed prior to graduation. A management internship, which allows students to acquire practical management experience and specialized knowledge from supervised work in a hotel, restaurant, or other hospitality-related business, is also part of this degree. Students in this program can complete a minor in business.

### Hospitality and Restaurant Management Concentration Requirements:

- **English/Communications:** (12-15 hours)
  - ENGL 1013 Composition I
  - ENGL 1023 Composition II
  - ENGL 2003 Advanced Composition OR Exemption Elective – See page 41
  - ENGL 2003 Advanced Comp or Exemption Elective – See page 41 for exemption information
- **Physical and Biological Sciences:** (8-9 hours)
  - CHEM 1074/1071L Fundamentals of Chemistry and lab
  - CHEM 1103/1101L University Chemistry I and lab
  - CHEM 2203 Nutrition for Exercise/Sport
  - CHEM 2213/2211L Human Anatomy and lab
- **History Core Elective:**
  - PSYC 2003 General Psychology
  - HESC 2303 Human Environmental Sciences Core
- **English Core:**
  - ENGL 1013 Composition I
  - ENGL 1023 Composition II
  - ENGL 2003 Advanced Comp or Exemption Elective
  - ENGL 3053 Technical and Report Writing OR JOUR 3123 Feature Writing OR AGED 3142/3141L Ag Communication and lab
  - COMM 1313 Fundamentals of Communication

### U.S. History University Core Course (3 hours)

Choose 3 hours from U.S. History University Core – See page 40

### Mathematics University Core Course and Computers (3 hours)

- Mathematics 1203 College Algebra or higher level math
- WCOB 1120 Computer Competency Requirement or Equivalent

### Physical Education (2 hours)

Choose 2 hours from the categories from “State Minimum Arts/Humanities Core” (categories a and b – See page 40.)

### Fine Arts/Humanities University Core Courses (6 hours)

Choose 6 hours from two categories from “State Minimum Arts/Humanities Core” (categories a and b – See page 40.)

### Social Sciences University Core Courses (9 hours)

- ECON 2143 Basic Economics
- HESC 2413 Family Relations
- PSYC 2003 General Psychology

### 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)

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### General Foods and Nutrition Concentration

**Fall Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1543/1541L Principles of Biology and lab</td>
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<tr>
<td>CHEM 2213/2211L Human Anatomy and lab</td>
<td>3</td>
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<tr>
<td>HESC 1213 Nutrition in Health</td>
<td>3</td>
</tr>
<tr>
<td>HESC 2112/2111L Foods I and lab</td>
<td>3</td>
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<tr>
<td>HESC 2413 Family Relations</td>
<td>3</td>
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<tr>
<td>HESC 2603 Food Service Purchasing</td>
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<tr>
<td>PSYC 2003 General Psychology</td>
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**Spring Semester Year 1**

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<tr>
<td>CHEM 2613/2611L Organic Physiological Chemistry and lab</td>
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<tr>
<td>CHEM 2203 Nutrition for Exercise/Sport</td>
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<td>HESC 4223 Nutrition During Life Cycle</td>
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**Fall Semester Year 2**

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<tr>
<td>ANSC 3042 Animal Physiology II OR BIOL 2213/2211L Human Physiology</td>
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<tr>
<td>CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
<td>3</td>
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<tr>
<td>ENGL 3053 Technical and Report Writing OR JOUR 3123 Feature Writing</td>
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**Spring Semester Year 2**

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<tr>
<td>CHEM 1103/1101L University Chemistry I and lab</td>
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<tr>
<td>CHEM 1123/1121L University Chemistry II and lab OR BIOL 1543/1541L Principles of Biology and lab</td>
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<td>CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
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**Fall Semester Year 3**

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<tr>
<th>Course</th>
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<tr>
<td>CHEM 3813 Introduction to Biochemistry</td>
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<tr>
<td>HESC 3553 Food Systems Management</td>
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</tr>
<tr>
<td>HESC 3603 Food Service Purchasing</td>
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**Spring Semester Year 3**

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<tr>
<td>HESC 3203 Nutrition for Health Professionals &amp; Educators</td>
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<tr>
<td>HESC 4103 Experimental Foods with lab component</td>
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<td>HESC 4243 Community Nutrition</td>
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<tr>
<td>ENGL 3053 Technical and Report Writing OR JOUR 3123 Feature Writing</td>
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**Fall Semester Year 4**

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<td>HESC 4213 Advanced Nutrition</td>
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<td>HESC 4223 Nutrition During Life Cycle</td>
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<td>HESC 3604 Food Preparation for the Hospitality Industry with lab component</td>
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<tr>
<td>BIOL 2013/2011L Microbiology and lab</td>
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### University of Arkansas, Fayetteville
__ HESC 1603 Introduction to Hospitality Management
__ HESC 2123 Catering Management with lab component
__ HESC 2603 Food Service Purchasing
__ HESC 2633 Hotel Operations Management
__ HESC 2643 Principles of Tourism
__ HESC 3613 Resort Management
__ HESC 3623 Legal Issues in Hospitality Industry with lab component
__ HESC 3633 Front Office Management
__ HESC 4623 Selection and Layout of Food Service Equipment
__ HESC 4633 Advanced Hospitality Operations
__ HESC 4643 Meetings, Events and Convention Management
__ HESC 4653 Global Travel and Tourism Management
__ HESC 4693 Hospitality Management Internship (3-6 hours)
__ AGEC 2143 Ag Financial Records or Equivalent
__ AGEC 3303 Food and Agricultural Marketing or Equivalent
__ FDSC 2503 Food Safety and Sanitation
_ General Electives _ (5-15 hours)
  Recommended:
  __ 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

3  English Core ENGL 1013 Composition
3  Math Core MATH 1203 College Algebra or higher level math
5  Science Core *CHEM 1074/1071L Fundamentals of Chemistry and lab
3  HESC 1603 Intro Hospitality Management
17  Semester hours

#### Spring Semester Year 1

3  English Core ENGL 1023 Composition II
4  Science Core *BIOL 1543/1541L Principles of Biology and lab
3  Fine Arts/Humanities Core Elective
3  COMM 1313 Fundamentals of Communication
1  PEAC OR DEAC Elective
1  HESC 1601 Work Experience Practicum **
1  HESC 1501 Orientation to HESC
16  Semester hours

#### Fall Semester Year 2

3  HESC 2112/2111L Foods I and lab
1  PEAC Elective
0  WCOB 1120 Computer Competency Requirement
3  Social Sciences Core PSYC 2003 General Psychology
3  FDSC 2503 Food Safety and Sanitation
3  HESC 2633 Hotel Operations Management
3  HESC 2643 Principles of Tourism
16  Semester hours

#### Spring Semester Year 2

3  HESC 3623 Legal Issues in the Hospitality Industry
3  HESC 2123 Catering Management with lab component
3  History Core Elective
3  ENGL 2003 Advanced Composition OR Exemption Elective
3  General Elective
15  Semester hours

#### Fall Semester Year 3

3  HESC 2603 Food Service Purchasing
3  HESC 3653 Food Systems Management

### Minor in General Foods and Nutrition (GFNU-M)

18 hours 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
Choose 6 hours from:
__ HESC 2203 Nutrition for Exercise and Sport
__ HESC 4223 Nutrition During the Life Cycle
__ HESC 4243 Community Nutrition
__ HESC 425V Food and Nutrition Seminar (may be taken 1 to 2 times for a total of 2 credits)

### 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 240). 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 70 for B.S.H.E.S. requirements)

**English/Communications** (12 hours)
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition or Exemption Elective – See page 41 for exemption information
- COMM 1313 Fundamentals of Communication

**U.S. History University Core Course** (3 hours)
Choose 3 hours from U.S. History University Core – See page 40

**Mathematics University Core Course and Computers** (6 hours)
- MATH 1203 College Algebra or higher level math
- Computer Course (3 hours)

**Biological and Physical Sciences** (13 hours)
- BIOL 1543/1541L Principles of Biology and lab
- CHEM 1074/1071L Fundamentals of Chemistry and lab
- CHEM 2613/2611L Organic Chemistry and lab

**Fine Arts/Humanities University Core Courses** (6 hours)
Choose 3 hours from category a and 3 hours from category b in “State Minimum Fine Arts/Humanities Core” – See page 40

**Social Sciences University Core Courses** (9 hours)
- PSYC 2003 General Psychology
Choose 6 hours from State Minimum Social Sciences Core from other listed fields of study – See page 40

**Health Science** (3 hours)
- HLSC 1002 Wellness Concepts
- PEAC 1621 Fitness Concepts

**GHEC 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 3763L Family Resource Management Lab
- HESC 4453 Parenting and Family Dynamics
- HESC 4753 Family Financial Management
- HESC 4813 Human Factors in ID

**General Electives** (29 hours)

124 Total Hours

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**General Human Environmental Sciences Eight-Semester Degree Program**

Students wishing to follow the degree plan 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>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3 HESC 1403 Lifespan Development</td>
<td>3 HESC 1013 Introduction to Clothing Concepts</td>
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<tr>
<td>1 HESC 1501 Orientation to HESC</td>
<td>3 HESC 2413 Family Relations</td>
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<tr>
<td>3 ENGL 1013 Composition I</td>
<td>3 PSYC 2003 General Psychology</td>
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<tr>
<td>3 MATH 1203 College Algebra or higher level math</td>
<td>3 ENGL 1023 Composition II</td>
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<tr>
<td>3 Fine Arts Core Elective (Category a of University Core)</td>
<td>2 General Elective</td>
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<td>15 Semester hours</td>
<td>1 PEAC 1621 Fitness Concepts</td>
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<tr>
<td>3 HESC 1023 Introduction to Apparel Production</td>
<td>3 HESC 3402/3401L Child Guidance and lab</td>
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<td>3 HESC 2433 Child Development</td>
<td>3 HESC 2053 Introduction to Textile Science with lab component</td>
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<tr>
<td>3 COMM 1313 Fundamentals of Communications</td>
<td>3 Social Science Core Elective</td>
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<tr>
<td>2 HLSC 1002 Wellness Concepts</td>
<td>3 Humanities Core Elective (category b – See page 40)</td>
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<td>5 CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
<td>3 General Elective</td>
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<td>16 Semester hours</td>
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<tr>
<td>3 HESC 3763L, Family Resource Management Lab</td>
<td>3 HESC 2123 Catering Management</td>
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<tr>
<td>3 HESC 2112/1211L Foods I and lab</td>
<td>3 HESC 1213 Nutrition in Health or HESC 3203 Nutrition for Health Professionals and Educators</td>
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<td>4 ENGL 2003 Advanced Compostion or exemption elective</td>
<td>4 BIOL 1543/1541L Principles of Biology and lab</td>
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<td>3 Social Science Core SOCI 2013 General Sociology</td>
<td>3 Social Science Core Elective</td>
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<tr>
<td>3 HESC 4453 Parenting/Family Dynamics</td>
<td>3 HESC 4753 Family Financial Management</td>
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<td>3 HESC 4753 Family Financial Management</td>
<td>3 U.S. History Core Elective</td>
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<td>6 General Electives – upper division</td>
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<td>3 HESC 4813 Human Factors in Interior Design</td>
<td>3 General Electives – upper division</td>
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HUMAN DEVELOPMENT, FAMILY SCIENCES, AND RURAL SOCIOLOGY (HDFSRS)

Peggy Whan
Area Coordinator
104 Home Management House
479-575-5129

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 70 for B.S.H.E.S. requirements)

Communications (12 hours)
__ ENGL 1013 Composition I
__ ENGL 1023 Composition II
__ ENGL 2003 Advanced Composition or, if exempt, COMM, ENGL, Foreign Language, JOUR Exemption Elective – See page 41 for exemption information
__ COMM 1313 Fundamentals of Communication

U.S. History or Government (3 hours)
Choose 3 hours from U.S. History University Core – See page 40

Mathematics (3 hours)
__ MATH 1203 College Algebra or higher level math

Sciences (8 hours)
Choose 8 hours from Science University Core – See page 40

Fine Arts and Humanities (6 hours)
Choose 6 hours in two categories from “State Minimum Fine Arts/ Humanities Core” (categories a and b – See page 40.)

Social Sciences University Core Courses (9 hours)
__ PSYC 2003 General Psychology
__ RSOC 2603 Rural Sociology or SOCI 2013 General Sociology
__ HESC 2413 Family Relations

Additional Course Requirements for Child Development Concentration
Child Development Concentration Courses (47 hours)
__ HESC 1213 Nutrition in Health
__ HESC 1501 Orientation to HESC
__ HESC 2402 / 2401L Infant and Toddler Development and lab
__ HESC 3402 / 3401L Child Guidance and lab
__ HESC 3423 Adolescent Development
__ HESC 4423 Adult Development
__ HESC 4453 Parenting and Family Dynamics
__ HESC 4463 Administration and Evaluation of Child Development Programs
__ HESC 4472 / 4472L Child Development Practicum and lab
__ HESC 4493 Public Policy Advocacy for Children and Families
__ HESC 4753 Family Financial Management
__ CIED 3023 Survey of Exceptionalities
__ CIED 3103 Children’s Literature
__ CIED 3113 Emergent and Developmental Literacy
__ SCWK 3633 Problems of Child Welfare

Child Development Electives (Choose 6 hours)
__ HESC 1403 Lifespan Development
__ HESC 2443 The Hospitalized Child
__ HESC 3443 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 Course Requirements for Birth through Kindergarten Concentration
Birth through Kindergarten Concentration Courses (58 hours)
__ HESC 1213 Nutrition in Health
__ HESC 1411L Observation of Children
__ HESC 1501 Orientation to HESC
__ HESC 2402/2401L Infant and Toddler Development and lab
__ HESC 2433 Child Development
__ HESC 3402/3401L Child Guidance and lab
__ HESC 3423 Adolescent Development
__ HESC 4313 Building Family and Community Relationships
__ HESC 4332/4332L Curriculum and Assessment Birth to Three Years and lab
__ HESC 4342/4342L Curriculum and Assessment Three Years-Kindergarten and lab
__ HESC 4373 Field Experience in Birth-Kindergarten Programs
__ HESC 4423 Adult Development
__ HESC 4453 Parenting and Family Dynamics
__ HESC 4463 Administration and Evaluation of Child Development Programs
__ HESC 4473 Family Financial Management
__ CIED 3023 Survey of Exceptionalities
__ CIED 3103 Children’s Literature
__ CIED 3113 Emergent and Developmental Literacy
__ HIST 3383 Arkansas and the Southwest
__ SCWK 3633 Problems of Child Welfare

General Electives (25 hours)

124 Total Hours
Additional course requirements for Lifespan Concentration

Lifespan Concentration Courses (43 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 and Evaluation of Child Development Programs
- HESC 4493 Public Policy Advocacy
- HESC 4753 Family Financial Management
- CNED 3053 The Helping Relationship
- SCWK 3163 On Death and Dying

Lifespan Concentration Electives (Choose 6 hours)
- HESC 2402/2401L Infant and Toddler Development and lab
- HESC 2443 The Hospitalized Child
- HESC 3402/3401L Child Guidance and lab
- HESC 3763L Family Resource Management Lab
- HESC 4483 Internship in Human Development and Family Studies
- RSOC 2603 Rural Sociology
- RSOC 4603 Environmental Sociology
- RSOC 4623 Introduction to Community Development

Statistics and Research Methods (6-7 hours)
- General Electives

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 chapter for university requirements of the program.

Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 1 HESC 1501 Orientation to HESC
- 3 COMM 1313 Fundamentals of Communications
- 3 MATH Core elective
- 3 History Core Elective
- 3 Fine Arts Core Elective
16 Semester hours

Spring Semester Year 1
- 3 PSYC 2003 General Psychology
- 4 Science Core Elective
- 3 HESC 2413 Family Relations
- 3 ENGL 1023 Composition II
- 3 General Elective
16 Semester hours

Fall Semester Year 2
- 3 HESC 1213 Nutrition in Health
- 3 HESC 2402/2401L Infant & Toddler Development and lab
- 3 Humanities Core Elective
- 3 General Elective
- 4 Science University Core Elective
16 Semester hours

Spring Semester Year 2
- 3 HESC 2433 Child Development
- 3 ENGL 2003 Advanced Composition or Exemption Elective
- 3 SOCI 2013 General Sociology or RSOC 2603 Rural Sociology
- 6 General Electives
15 Semester hours

Fall Semester Year 3
- 3 CIED 3103 Children's Literature
- 3 CIED 3113 Emergent & Developmental Literacy
- 3 SCWK 3633 Problems of Child Welfare
- 3 HESC 3402/3401L Child Guidance and lab
- 3 CDEV Elective
15 Semester hours

Spring Semester Year 3
- 3 HESC 3423 Adolescent Development
- 4 HESC 4472/4472L Child Development Practicum and lab
- 3 CIED 3023 Survey of Exceptionalities
- 3 CDEV Elective
- 3 General Elective
16 Semester hours

Fall Semester Year 4
- 3 HESC 4753 Family Financial Management
- 3 HESC 4423 Adult Development
- 3 HESC 4463 Administration & Evaluation of Child Development Programs
- 3 HESC 4493 Public Policy Advocacy
- 3 General Electives
15 Semester hours

Spring Semester Year 4
- 3 HESC 4453 Parenting and Family Dynamics
- 12 General Electives
15 Semester 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 chapter for university requirements of the program.

Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 1 HESC 1501 Orientation to HESC
- 3 COMM 1313 Fundamentals of Communications
- 3 MATH Core elective
- 3 History Core Elective
- 3 Fine Arts Core Elective
16 Semester hours

Spring Semester Year 1
- 3 PSYC 2003 General Psychology
- 4 Science Core Elective
- 3 HESC 2413 Family Relations
- 3 ENGL 1023 Composition II
- 3 General Elective
16 Semester hours

Fall Semester Year 2
- 3 HESC 1213 Nutrition in Health
- 3 HESC 2402/2401L Infant & Toddler Development and lab
- 3 Humanities Core Elective
- 3 General Elective
- 4 Science University Core Elective
16 Semester hours

Fall Semester Year 2
- 3 HESC 1213 Nutrition in Health
- 3 HESC 2402/2401L Infant & Toddler Development and lab
- 4 Science Core Elective
- 3 SOCI 2013 General Sociology or RSOC 2603 Rural Sociology
- 3 General Electives
16 Semester 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 chapter for university requirements of the program.

<table>
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<th>Semester</th>
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### Spring Semester Year 1

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<td>HESC 2413 Family Relations</td>
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<td>3</td>
<td>ENGL 1023 Composition II</td>
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<td>HESC 1213 Nutrition in Health</td>
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<td></td>
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<td>HESC 3443 Families in Crisis</td>
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<td>3-4</td>
<td>Statistics Elective. Select from PSYC 2013 Introduction to Statistics or STAT 2303 Principles of Statistics or SOCI 3303/3303L Social Data and Analysis and lab or WCOB 1033 Data Analysis and Interpretation</td>
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### Spring Semester Year 3

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<tr>
<td>3</td>
<td>SCWK 3163 On Death and Dying</td>
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<td>Research Methods Elective: Select from PSYC 3073 Research Methods or SOCI 3313 or SCWK 4073</td>
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<tr>
<td>3</td>
<td>HESC 4493 Public Policy Advocacy</td>
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<td>3</td>
<td>HESC 4753 Family Financial Management</td>
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<td>3</td>
<td>HESC 4453 Parenting and Family Dynamics</td>
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<td>3</td>
<td>HESC 4423 Adult Development</td>
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<td>3</td>
<td>HESC 4463 Administration &amp; Evaluation of Child Development Programs</td>
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### Spring Semester Year 4

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<tr>
<td>3</td>
<td>HESC 4313 Building Family &amp; Community Relationships</td>
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<td>3</td>
<td>HESC 4373 Field Experience in Birth to Kindergarten Programs</td>
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<td>HIST 3383 Arkansas and the Southwest</td>
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<td>Semester hours</td>
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### Minor in Human Development and Family Sciences (HDFS-M)

18 hours to include the following:

- HESC 1403 Life Span Development
- HESC 2413 Family Relations
  - Choose 12 hours from:
    - HESC 2402/2401L Infant and Toddler Development and lab
    - HESC 2433 Child Development
    - HESC 2443 The Hospitalized Child
    - HESC 3402/3401L Child Guidance and lab
    - HESC 3423 Adolescent Development
    - HESC 3443 Family in Crisis
    - HESC 3763L Family Resource Management Lab
    - HESC 4423 Adult Development
    - HESC 4443 Gerontology
    - HESC 4453 Parent/Family Dynamics
    - HESC 4463 Administration and Evaluation of Child Development Programs
    - HESC 4493 Public Policy Advocacy for Children and Families
    - HESC 4753 The Family Financial Management
    - RSOC 2603 Rural Sociology
    - RSOC 4603 Environmental Sociology
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 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 Studies 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, with 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 with an attitude of inquiry and learning based on their individual skills and interests. Intellectual development of students is stimulated and leadership development and peer learning. 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 70 for college requirements)

Communications (12 hours)
- ENGL 1013 Composition I
- ENGL 1023 Composition II
- ENGL 2003 Advanced Composition or COMM, ENGL, JOUR

Exemption Elective – See page 41 for exemption information

U.S. History (3 hours)
- Choose 3 hours from U.S. History University Core – See page 40

Mathematics (3 hours)
- MATH 1203 College Algebra or higher level math

Physical and Biological Sciences (8 hours)
- Choose 8 hours from Science University Core – See page 40

Fine Arts and Humanities (6 hours)
- Choose 3 hours from category a and 3 hours from category b from the “State Minimum Fine Arts/Humanities Core” – See page 40

Social Science (9 hours)
- ECON 2013 Principles of Macroeconomics or ECON 2023 Principles of Microeconomics or ECON 2143 Basic Economics-Theory and Practice or AGEC 1103 Principles of Agricultural Microeconomics or AGEC 2103 Principles of Agricultural Macroeconomics
- Choose 6 hours from:
  - PSYC 2003 General Psychology
  - SOCI 2013 General Sociology
  - ANTH 1023 Introduction to Cultural Anthropology

Interior Design Major Requirements

Art/Architecture (6 hours)
- ARCH 4433 History of Architecture III
- Choose 3 hours from:
  - 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 1501 Orientation to HESC
- HESC 2413 Family Relations

Interior Design (58 hours)
- Choose 3 hours from:
  - 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 and Communication
  - HESC 2815 Studio 4: Design Programming
  - HESC 2823 Interior Design Materials and Resources
  - HESC 2853 Intro to Textiles for Interior Designers
  - HESC 2883 History of Interior Design
  - HESC 3805 Studio 5: Design and Construction
  - HESC 3815 Studio 6: Large Scale Commercial Interiors
  - HESC 3843 Building Systems ID
  - HESC 4805 Studio 7: Comprehensive Design Process I
  - HESC 4813 Human Factors in ID
  - HESC 4815 Studio 8: Comprehensive Design Process II (5)
  - HESC 4823 Professional Practice for ID
  - HESC 4811 Internship for ID

Non-Credit Requirement
- WCOB 1120 Computer Competency

Business Administration (Choose 6 hours)
- FINN 3003 Personal Financial Management
- FINN 3933 Real Estate Principles
- FINN 4413 Real Estate Investment and Appraisal
FINN 4433 Real Estate Finance
MKTG 3433 Introduction to Marketing Strategy,
**Electives** (9 hours)
  Recommended:
  - HESC 485V Design Tours (1 hour)
  - HESC 3841 Portfolio Work Shop
  - HESC 455V Special Topics

124 Total Hours

**Interior Design Nine-Semester Degree Program**

Students wishing to follow the degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>1 HESC 1031 Intro to the Profession</td>
<td>4 HESC 1034 Studio 1</td>
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<tr>
<td>1 HESC 1501 Orientation to HESC</td>
<td>3 HESC 2883 History of Interiors</td>
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<tr>
<td>3 ENGL 1013 Composition I</td>
<td>3 MATH 1203 College Algebra or higher level math</td>
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<td>0 WCOB 1120 Computer Competency Requirement</td>
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<tbody>
<tr>
<td>4 HESC 1044 Studio 2</td>
<td>3 HESC 2853 Intro to Textiles for Interior Design</td>
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<td>3 Social Science Elective</td>
<td>3 ENGL 1023 Composition II</td>
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<td>3 COMM 1313 Fundamentals of Communications</td>
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<td>3 HESC 2823 ID Materials &amp; Resources</td>
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<td>3 Social Science Elective</td>
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<td>3 HESC 3843 Building Systems for ID</td>
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<td>3 HESC 2413 Family Relations</td>
<td>3 Fine Arts/Humanities Core Elective</td>
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<td>3 HESC 4813 Human Factors in ID</td>
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<td>3 HESC 4823 Professional Practice</td>
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<td>1 HESC 4811 Internship for Interior Design</td>
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124 Total Hours

**Minor in Interior Design (IDES-M)**

All students seeking an Interior Design minor are required to complete 28 hours in the following courses or their equivalencies:

- HESC 1034 Studio I Design Exploration I
- HESC 1044 Studio II Design Exploration II
- HESC 2805 Studio III Basic Space Planning and Communication

Choose 15 hours from:

- HESC 2823 Interior Design Materials and Resources
- HESC 2853 Introduction to Textiles for Interior Designers
- HESC 2883 History of Interior Design
- HESC 3843 Building Systems for Interior Design
- HESC 4813 Human Factors in Interior Design
- HESC 4823 Professional Practice for Interior Design
- HESC 455V Special Topics

See page 351 for Human Environmental Sciences (HESC) courses.
The Fay Jones 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 urban design. 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.

The Fay Jones 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 urban design. 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 European Field Studies in Italy, France and England.

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 40,000 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.

Computer Resources

The School of Architecture maintains two fully equipped computer labs that are available to all faculty and students around the clock. The computer labs are staffed during business hours by a computer technology coordinator who can assist with any problems that may arise. The Visualization Lab houses a three-axis computer numerically controlled (CNC) router, two laser cutters and a three-dimensional printer that allow students and faculty to transform software files into physical models. Finally, the school offers lectures, workshops and access to design software that supports collaboration between architects, landscape architects, engineers, contractors, fabricators and clients.

Materials Shop

The Materials Shop supports construction projects ranging from light fixtures and furniture to three-dimensional models. The facility is staffed by one full-time technician and is available to students and faculty for design, coursework, and research projects. The workshop houses multiple table saws, band-saws, chop saw, scroll saw, drill presses, jointer, planer, lathe, belt sanders, metal break and many hand tools.

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.

University of Arkansas Community Design Center

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. A staffed workspace is available and 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. 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 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.

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 those criteria will receive a letter and be advised accordingly.
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 a complete description of admission requirements.

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 upon 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:

A 4.00 C 2.00
A– 3.67 C– 1.67
B+ 3.33 D+ 1.33
B 3.00 D 1.00
B– 2.67 D– 0.67
C+ 2.33 F 0.00

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. The fees are non-refundable under any circumstances including withdrawal from the respective professional programs. 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 Department of Architecture Honors Program

The mission of the Department of Architecture at the University of Arkansas is rooted in the best traditions of architectural education: responsibility and service to the societies and cultures to which we are inextricably connected, and the nurturing of the individual curiosity and capabilities of our students. To achieve the highest potential of these goals, the department faculty has developed the Department of Architecture Honors Program and participates in the programs of the University of Arkansas Honors College. The Architecture Honors Program provides opportunities for students of superior academic and creative ability to enhance and enrich their professional and liberal education. Students in the Architecture Honors Program are eligible to graduate cum laude, magna cum laude, and summa cum laude. All other students who attain a cumulative GPA of 3.5 or higher will be eligible to graduate with distinction, a classification separate from the cum laude awards.

The Architecture Honors Program offers two components: The Distinguished Scholars Program, which requires 44 credit hours of honors designated courses and the Departmental Scholars Program, requiring 24 credit hours of honors designated courses for the Bachelor of Architecture degree. Specific requirements for each program are detailed below. Eligible students in both the five-year Bachelor of Architecture curriculum and the four-year Bachelor of Science in Architectural Studies program are welcome to join the Honors Program.
Invitation to Join the School of Architecture Honors Program

Upon admission to the University, students who present a composite ACT score of 28 (or higher) and a high school GPA of 3.5 or higher will be invited to enroll in the University of Arkansas Honors College. Concurrently, students majoring in Architecture or Architectural Studies will be invited to join the Architecture Honors Program as Distinguished Scholars. From the second semester of the third year onward, Architecture Honors Scholars are required to maintain a minimum cumulative GPA of 3.33 to remain in the program. Each student is encouraged to consult the Architecture Honors Committee and the Architecture Advising Center before deciding the level of honors distinction (Distinguished Scholar or Departmental Scholar) they wish to pursue and to maintain this advisory relationship throughout the student's matriculation in the program.

Transfer students may be invited to join the Architecture Honors Program as Distinguished Scholars or as Departmental Scholars if they maintain a cumulative GPA of 3.5 or higher in courses completed at the University of Arkansas by the end of the first semester of their third year of study, and a 3.33 GPA thereafter.

Every semester, the Architecture Advising Center will apprise the Architecture 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 by the end of the semester in which the candidacy is advanced.

Confirmation of Intent to Complete the Honors Program

At the end of the first semester of the third year, students will sign a form, confirming their intention to complete the remaining requirements for their Honors degree. Students found not to have successfully completed the Honors core course(s) needed to satisfy their Honors degree requirements (i.e., sufficient credits in University Core and/or Professional Core Honors courses) will be dismissed from the Honors program at this time.

Dismissal from Architecture Honors Program

Architecture Honors Program students who fail to maintain a 3.5 or 3.33 cumulative GPA, depending on their year level, will receive a one-semester probation period prior to dismissal from the program.

Architecture Honors Program Mentors

Every Architecture Honors Program student will be assigned an Honors Faculty Mentor. Students shall meet with their mentors at least once each semester to discuss the student's progress through the honors curriculum and his/her developing interests or focus in the discipline of architecture. The Honors Faculty Mentor also will serve as a committee member for the Honors Thesis/Research Project.

Architecture Honors Thesis /Research Project

All honors students will pursue a research project during the final year of their undergraduate program. Honors students in the Bachelor of Architecture curriculum will invest 12 credit hours in a research/design thesis, articulating topics identified in the Honors Architectural Research Methods (ARCH 4723H) or the Methods of Research in Architectural History Colloquium. Honors students in the Bachelor of Science in Architectural Studies program invest six credit hours in the Honors thesis. Students pursuing the History of Architecture and Urbanism major concentration will develop traditional written Honors theses. Guidelines for topic selection and preparation of the Honors Thesis/Research Project are available from the Architecture Honors Committee.

The Honors thesis involves original work by each student under the direction of a thesis committee, which shall include a thesis director, a faculty member in the Department of Architecture. The director chairs the thesis committee to be comprised of two other members, typically, a departmental faculty member and a non-departmental faculty member. In rare cases when the thesis director, in consultation with the Department Honors Committee and the student, determines that a non-departmental faculty member with expertise appropriate to the thesis in question cannot be identified on campus, an extra-disciplinary member from within the Department of Architecture (e.g., faculty in architectural history, technology, or other allied field) may be fill the position of the non-departmental member. Any such exceptions to the standard membership of a thesis committee should be infrequent, as the point of including non-departmental participation is to help ensure that a student's research is understandable and valid to an informed community outside of the disciplines of architecture. The determination should be based on the extent to which a student's thesis would have to be unproductively altered to meet the requirement for non-departmental participation on the thesis committee. Additional faculty, both departmental or non-departmental, as well as non-academic experts, may participate in any Honors thesis as non-committee members, if thesis director welcomes their involvement.

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).

Students shall meet a schedule of interim requirements established by the thesis committee in consultation with the Architecture Honors Committee.

Department of Architecture Honors Program Requirements

For Distinguished Scholars in the Bachelor of Architecture Program

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, including Methods of Architectural Research colloquium 9
- Honors Thesis Research Project 12

For Distinguished Scholars in the Bachelor of Science in Architectural Studies

Completion of 38 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+) 12
- University honors courses, including an approved research methods course 12
- Honors Thesis Research Project 6

The Departmental Scholars Program

For Departmental Scholars in the Bachelor of Architecture Program

Completion of 24 credit hours of honors designated courses, to include a minimum of:
- Upper level (3000+) University Honors Courses (Free Electives taken outside the School of Architecture) 6
Professional Core Honors Courses in Architecture (Architectural Technology and/or History of Architecture) 3
Honors Professional Electives, including approved an approved Methods of Architectural Research colloquium 3
Honors Thesis Project 12

For Departmental Scholars in the Bachelor of Science in Architectural Studies
Completion of 15 credit hours of honors designated courses, to include a minimum of:
Honors Professional Electives and/or upper level 6
(3000+) University Honors Courses, including approved methods of research course 6
Professional Core Honors Courses in Architecture (Architectural Technology and/or History of Architecture) 3
Honors Research Thesis 6

Architect Honors Program Committee
The chair of the School of Architecture Honors Program, the head of the Department of Architecture, the Department of Architecture representative to the School of Architecture Honors Program Committee and one tenured or tenure-track Architecture faculty member comprise the Architecture Honors Program Committee. The committee serves to:
- Review courses for honors designation.
- Review nominations of eligible students to join the Architecture Honors Program.
- Serve as ambassadors for the Department and its Honors Program.
- Participate in recruiting efforts of the School of Architecture and the Honors College.

The committee shall meet at least once each semester, and at the discretion of the department head and the chair of the School Honors Program.

Department of Landscape Architecture Honors Program
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.

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 for the Distinguished Scholars Program:

<table>
<thead>
<tr>
<th>Hours</th>
<th>University Core or Electives at the Honors level</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Landscape Architecture Professional Core at the Honors level, which may include design studio, construction laboratory, or history class</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>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>9</td>
</tr>
<tr>
<td></td>
<td>Honors Thesis or project as described below</td>
<td>6</td>
</tr>
</tbody>
</table>

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 for the Departmental Scholars Program:

<table>
<thead>
<tr>
<th>Hours</th>
<th>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.</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<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 applications, 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 designate. 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 design thesis 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 a 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 education 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)

<table>
<thead>
<tr>
<th>Departmental Office</th>
<th>120 Vol Walker Hall</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>479-575-4945</td>
</tr>
<tr>
<td>• University Professor Emeriti Smart</td>
<td></td>
</tr>
<tr>
<td>• Professors Blackwell, Goodstein-Murphree, Luoni, Shannon, Vitale, Wall</td>
<td></td>
</tr>
<tr>
<td>• Associate Professors de Noble, Herman, Sexton, Terry</td>
<td></td>
</tr>
<tr>
<td>• Assistant Professors Hughes, Messadi</td>
<td></td>
</tr>
<tr>
<td>• Clinical Assistant Professors Fitzpatrick, Rotolo, Sarpaneva</td>
<td></td>
</tr>
<tr>
<td>• Adjunct Assistant Professors Bedeschi, Del Gesso, Rudzinski</td>
<td></td>
</tr>
</tbody>
</table>

#### Bachelor of Architecture Degree

<table>
<thead>
<tr>
<th>Bachelor of Architecture Degree</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completion of the following 92-hour professional program:</td>
<td>92</td>
</tr>
<tr>
<td>Architectural Design</td>
<td>56</td>
</tr>
<tr>
<td>ARCH 1014, ARCH 1024, ARCH 2016, ARCH 2026, ARCH 3016, ARCH 3026, ARCH 4016, ARCH 4026, ARCH 5016, ARCH 5026</td>
<td></td>
</tr>
<tr>
<td>Architectural Technology</td>
<td>16</td>
</tr>
<tr>
<td>ARCH 2114, ARCH 2124, ARCH 3134, ARCH 4154</td>
<td></td>
</tr>
<tr>
<td>History and Theory of Arch.</td>
<td>16</td>
</tr>
<tr>
<td>ARCH 1212, ARCH 1222, ARCH 2233, ARCH 2243, ARCH 4433, ARCH 4523</td>
<td></td>
</tr>
<tr>
<td>Professional Practice</td>
<td>4</td>
</tr>
<tr>
<td>ARCH 5314</td>
<td></td>
</tr>
<tr>
<td>2. Completion of the 35-hour general University Core as listed on page 40. In addition, specific requirements are listed below:</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
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<tr>
<td>MATH 2043 or MATH 2053</td>
<td></td>
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<tr>
<td>Laboratory Science</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 1044 or PHYS 2013/2011L, required.</td>
<td></td>
</tr>
<tr>
<td>PHYS 1054 or PHYS 2033/2031L, strongly recommended.</td>
<td></td>
</tr>
<tr>
<td>3. Completion of 27 hours of electives, as follows:</td>
<td></td>
</tr>
<tr>
<td>Professional Electives</td>
<td>15</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Free Electives</td>
<td>15</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>5. Completion of the University Advanced Composition requirement either by course work or exemption by exam.</td>
<td></td>
</tr>
<tr>
<td>6. Participation for at least one semester in an approved international educational experience. (See Off-Campus Study Requirement, page 105.)</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Sample curriculum for the Bachelor of Architecture degree can be obtained from the School's Advising Center.</td>
<td></td>
</tr>
</tbody>
</table>

#### 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 His-
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 of the Americas
   - ARCH 5933 Preservation & Restoration
   - ARCH 4023 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
   - ARCH 4023 St. Peter’s Basilica
   - ARCH 4023 Art and Culture in the City
   - ARCH 4023 Architecture of the City, Rome
   - LARC 3413 History of Landscape Architecture

   **Modern Architecture and Urbanism** – select from
   - ARCH 4483 Architecture of the Americas
   - ARCH 4023 City in American Art and Culture
   - ARCH 4023 House Culture
   - ARCH 4023 Italian Architecture from the Renaissance to the Present
   - ARCH 4023 Architecture of the City, Rome
   - LARC 4413 Contemporary Landscape Architecture

3. Three hours, Methods of Architectural Research Colloquium

4. At least twelve hours of free electives to be selected from the following areas, to include:

   a. At least three hours in upper-level (3000+) art history courses related to the area of specialization.
   b. At least three hours in upper-level (3000+) humanities or social science courses related to the area of specialization; students pursuing the historic preservation emphasis must select ANTH 5023 or ANTH 5443.
   c. Foreign Language requirements to be determined in consultation with adviser. Students who intend to pursue graduate study in architectural history should have competency in at least one foreign language; French and/or German are recommended.

5. At least six to 12 hours of research thesis.

6. Students considering pursuing the major concentration in History of Architecture and Urbanism are encouraged to fulfill the humanities and social science requirements of the 35-hour University Core with selections from the following courses.

   ARHS 1003 Art Lecture
   WLIT 1113 World Literature I
   WLIT 1123 World Literature II
   CLST 1003 Intro. to Classical Studies, Greece
   CLST 1013 Intro. to Classical Studies, Rome
   HIST 1003 Institutions and Ideas of Western Civilization I
   HIST 1013 Institutions and Ideas of Western Civilization II

   HIST 2003 History of the American People to 1877
   HIST 2013 History of the American People 1877 to the Present
   ANTH 1023 Intro. to Cultural Anthropology
   Any foreign language, 2003 or 2013.

**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 316 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 in related fields 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
   - Architectural Technology
   - ARCH 2114, ARCH 2124, or LARC 2714, LARC 3724
   - 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

2. Completion of the following 35-hour general education program:
   - English Composition
   - ENGL 1013, ENGL 1023
   - American History or Government.
   - HIST 2003 or HIST 2013 or PLSC 2003
   - Mathematics
   - MATH 2043 or MATH 2053
   - Laboratory Science
   - PHYS 1044 and PHYS 1054 are recommended.
   - 6
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 on page 40)

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)

3. Completion of the following 21-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
   WLLIT 1113 and 3 hours from
   WLLIT 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
   A minimum of six hours in courses numbered above 3000
   (not including any courses cross-listed with architecture).

4. Completion of the following foreign language requirement.
   Foreign Language (depending upon placement) 0-12
   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 12
   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

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 or courses in the School of Architecture numbered
   2000 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>17 Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ARCH 1014 Design I</td>
<td>4</td>
</tr>
<tr>
<td>2 ARCH 1212 Design Methods I</td>
<td>4</td>
</tr>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>3 HIST 2003 or 2013 American History or PLSC 2003 American Government</td>
<td>3</td>
</tr>
<tr>
<td>4 PHYS 1044 Physics for Architects I</td>
<td>4</td>
</tr>
<tr>
<td>1 ARCH Leadership by Design</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>17 Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ARCH 1024 Design II</td>
<td>4</td>
</tr>
<tr>
<td>2 ARCH 1222 Intro to Environmental Design II</td>
<td>4</td>
</tr>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>3 MATH 2043 Survey of Calculus or MATH 2053 Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>4 Science Core; Recommended: PHYS 1054 Physics for Architects II</td>
<td>4</td>
</tr>
<tr>
<td>1 ARCH Leadership by Design</td>
<td>1</td>
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</tbody>
</table>

Spring-Summer Design Studio

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>14 Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>3 HIST 2003 or 2013 American History or PLSC 2003 American Government</td>
<td>3</td>
</tr>
<tr>
<td>4 PHYS 1044 Physics for Architects I</td>
<td>4</td>
</tr>
<tr>
<td>3 Social Science Core</td>
<td>3</td>
</tr>
<tr>
<td>1 ARCH Leadership by Design</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>14 Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ARCH 1014 Design I</td>
<td>4</td>
</tr>
<tr>
<td>2 ARCH 1212 Design Methods I</td>
<td>4</td>
</tr>
<tr>
<td>3 ENGL 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>3 MATH 2043 Survey of Calculus or MATH 2053 Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>4 Science Core; Recommended: PHYS 1054 Physics for Architects II</td>
<td>4</td>
</tr>
<tr>
<td>1 ARCH Leadership by Design</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Session Year 1</th>
<th>6 Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ARCH 1024 Design II</td>
<td>4</td>
</tr>
<tr>
<td>2 ARCH 1222 Design Methods II</td>
<td>2</td>
</tr>
</tbody>
</table>

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 students and change-of-majors seeking exceptions to the sample curriculum will be reviewed on an individual basis.
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, Communication, Computer Sciences, Drama, Economics, Environmental Studies, English, European Studies, Gender Studies, Geography, Historic Preservation, History, Historic Preservation, Latin-American Studies, Philosophy, Political Science, Psychology.

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.

**LANDSCAPE ARCHITECTURE (LARC)**

Departmental Office
231 Memorial Hall
479-575-4907
- Professor Crone
- Associate Professors Beatty, Boyer, Brittenum
- Assistant Professor Smith

**Bachelor of Landscape Architecture Degree**

<table>
<thead>
<tr>
<th>Bachelor of Landscape Architecture Degree</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completion of the following 95-hour Professional core: Design and Graphics</td>
<td>59</td>
</tr>
<tr>
<td>LARC 1315, LARC 1325, LARC 2113, LARC 2123, LARC 2336, LARC 2346, LARC 3356, LARC 3914, LARC 3366 LARC 4376, LARC 4383, LARC 5386</td>
<td></td>
</tr>
<tr>
<td>Landscape Architecture/ History/Theory</td>
<td>8</td>
</tr>
<tr>
<td>LARC 1211, LARC 1221, LARC 3413, LARC 4413</td>
<td></td>
</tr>
<tr>
<td>Summer Study Abroad</td>
<td>7</td>
</tr>
<tr>
<td>LARC 3821, LARC 3933, LARC 4123</td>
<td></td>
</tr>
<tr>
<td>Landscape Architecture Technical Courses</td>
<td>19</td>
</tr>
<tr>
<td>LARC 2714, LARC 3724, LARC 3734, LARC 4714, HORT 3103</td>
<td></td>
</tr>
<tr>
<td>Professional Practice</td>
<td>3</td>
</tr>
<tr>
<td>LARC 5613</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>8</td>
</tr>
<tr>
<td>BIOL 1543/1541L or BIOL 1613/1611L and GEOL 1113/1111L are recommended.</td>
<td></td>
</tr>
<tr>
<td>3. Completion of the following additional general education requirements: Professional Electives</td>
<td>15</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

112 University of Arkansas, Fayetteville
Free Electives 12

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 professional 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.

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 selected from botany, biology, geology, and physical science as part of the State Minimum Core.

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 prerequisite degree to qualify to take the licensing exam and prepares them for practice.

Forty-nine 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 specific criteria be met in a professional program. This five-year professional program gives its graduates the required prerequisite degree to qualify to take the licensing exam and prepares them for practice.

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 existing 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 profession. 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 preservation, history, public policy, public administration, and journalism.

Requirements for a Bachelor of Science in Landscape Hours

Architectural Studies

1. Completion of the following 35-hour landscape architecture studies program:

   - Landscape Architecture Design 18
   - LARC 1315, LARC 1325, LARC 3914, LARC 2113, LARC 2123
   - Landscape Architecture Technology LARC 2714 or 4
   - LARC 4743 or LARC 3724
   - History and Theory of Landscape Architecture 6
   - Research thesis preparation 2
   - 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 12
   - Arts and Sciences
   - 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 15
   - 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
   - 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 area. 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.

<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 MATH 1203 College Algebra</td>
<td></td>
</tr>
<tr>
<td>3 HIST 2003 or 2013, PLSC 2003</td>
<td></td>
</tr>
<tr>
<td>American History or Government</td>
<td></td>
</tr>
<tr>
<td>1 LARC 1211 Intro to Landscape Architecture Design I</td>
<td></td>
</tr>
<tr>
<td>5 LARC 1315 Landscape Architecture Design I</td>
<td></td>
</tr>
<tr>
<td>1 Some students may be required to take FYE</td>
<td></td>
</tr>
<tr>
<td>15-16 Semester hours</td>
<td></td>
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</tbody>
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<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 SOCI 2013 General Sociology</td>
<td></td>
</tr>
<tr>
<td>4 GEOL 1113/1111L General Geology and lab</td>
<td></td>
</tr>
<tr>
<td>1 LARC 1221 Intro to Landscape Architecture I</td>
<td></td>
</tr>
<tr>
<td>5 LARC 1325 Landscape Architecture Design II</td>
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<tr>
<td>16 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>3 WLIT 1113 World Literature I</td>
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</tr>
<tr>
<td>3 LARC 3413 History of Landscape Architecture</td>
<td></td>
</tr>
<tr>
<td>3 Fine Arts Core Requirement</td>
<td></td>
</tr>
<tr>
<td>3 LARC 2113 Design Communications I</td>
<td></td>
</tr>
<tr>
<td>3 Free Elective Hours</td>
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</tr>
<tr>
<td>1 LARC 302V (one credit: thesis prep)</td>
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</tr>
<tr>
<td>15 Semester hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
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</tr>
<tr>
<td>4 BIOL 1613/1611L or BIOL 1543/1541L</td>
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</tr>
<tr>
<td>3 LARC 2123 Design Communications II</td>
<td></td>
</tr>
<tr>
<td>3 LARC 4413 Contemporary Landscape Architecture</td>
<td></td>
</tr>
<tr>
<td>3 Arts and Sciences 3000+ level course</td>
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<tr>
<td>16 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 Humanities Core Requirement</td>
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<tr>
<td>3 HIST 1003 or HIST 1113</td>
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</tr>
<tr>
<td>4 LARC 3914 Planting Design I</td>
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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 363 FOR LANDSCAPE ARCHITECTURE (LARC) COURSES
J. William Fulbright
College of Arts and Sciences

The college 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 useful in later life, encourage the 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 fields ranging from chemistry and art to journalism, physics, social work and psychology. In addition, the college, in cooperation with the Graduate School, offers course work leading to master’s degrees and doctoral degrees. As a natural corollary of their instructional role, faculty members of the college pursue active research 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.

FACILITIES AND RESOURCES

Academic Advising Services

The Fulbright College of Arts and Sciences provides an adviser for each student enrolled in the college. Freshman- and sophomore-level students are advised in the Fulbright College Advising Center in Old Main 518. All undeclared major students and all freshman declared major students doing a four-year honors program receive advising from the Fulbright Honors Program office in Old
Majors and Minors

For a complete list of departmental majors, minors, concentrations, options and coursework, see the chart on pages 118 and 119.

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  Geology
Anthropology  German
Art  History
Biology  International Relations
Chemistry  Journalism
Classical Studies  Mathematics
Communication  Music
Computer Science (B.A.)  Philosophy
Criminal Justice  Physics
Drama  Political Science
Earth Science  Psychology
Economics  Social Work
English  Sociology
French  Spanish
Geography

Second (or dependent) Majors*

African American Studies  German
Asian Studies  Historic Preservation
European Studies  History
Latin American Studies  Japanese
Middle East Studies  Latin American Studies
Russian Studies  Legal 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  German
Anthropology  Historic Preservation
Arabic  History
Art History  Japanese
Asian Studies  Latin American Studies
Biography  Legal Studies
Business  Mathematics
Chemistry  Medieval and Renaissance Studies
Classical Studies  Middle East Studies
Communication  Music
Computer Science  Philosophy
Drama  Physics
Economics  Political Science
English  Psychology
European Studies  Religious Studies
French  Social Work
Gender Studies  Sociology
Geography  Spanish
Geology  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) no later than 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 of the School of Social Work.
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.)

   Licensure for teaching requires completion of the bachelor’s degree in Fulbright College and completion of the Master of Arts in Teaching (M.A.T.) degree through the College of Education and Health Professions. Admission to the M.A.T. degree program requires a minimum cumulative undergraduate grade-point average of 2.70 and completion of the following requirements. Refer to the teacher licensure checklist at http://coehp.uark.edu/4882.htm for licensing requirements and additional information.

   Complete the following with a grade of “C” or higher:
   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 or another appropriately approved course
   c) CIED 4023 Teaching in Inclusive Secondary Settings

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 1313/1311L Stage Technology I and lab
- DRAM 1323/1321L Stage Technology II and lab
- DRAM 3653 Directing I

Drama majors must take the following Communication courses:
- COMM 2373 Introduction to Debate

English

Complete a B.A. 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 B.A. or B.S. 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 4583 Arkansas in the Nation or HIST 3383 Arkansas and the Southwest

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
- SOCI 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...
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<th>Degrees Offered</th>
<th>Major</th>
<th>Minor</th>
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* Indicates majors that are “second,” “dependent,” or “combined.” See each program for more details.
consult the 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 College Advising Center.

A baccalaureate degree is required for admission to the University of Arkansas 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 Fulbright 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 1 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 Fulbright 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 Fulbright 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 Fullbright College Advising Center, 518 Old Main, 479-575-3307, or e-mail: fcac@uark.edu, Web site: http://fcac.uark.edu. 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 this program should determine the specific admission requirements from 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 2013/2011L, PHYS 2033/2031L,
- and CHEM 1103/1101L, CHEM 1123/1121L, CHEM 3603/3601L, CHEM 3631/3611L (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
- BIOL 1543/1541L, plus one other course in biological sciences, or equivalent
- CHEM 1103/1101L, CHEM 1123/1121L, CHEM 3603/3601L, CHEM 3631/3611L
- MATH 1203 and MATH 1213, or MATH 2554
- PHYS 2013/2011L and 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 McLachlin, 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 from the college(s) 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 60 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 Loraine 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:** Students entering this program should determine the specific requirements from the school of their choice at an early date. 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 electives 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 this program should determine the specific admission requirements from 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 also 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 from 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 or U.S. government, 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 from 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 physiology, 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 entering this program should determine the specific admission requirements from the school(s) of their choice at an early date. 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, 3 hours of computer science, 3 hours of statistics, 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 this program should determine the specific admission requirements from the school(s) 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, 3 hours of general psychology, 3 hours of psychology 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: Students entering this program should determine specific admission requirements from the school(s) of their choice at an early date. Admission requirements for ophthalmic medical technology at the University of Arkansas for Medical Sciences College of Health Related Professions consist of a minimum of 31 credit hours to include: 4 hours of chemistry, 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: 22 hours of biology (including 4 hours of general biology, 4 hours of human anatomy, 4 hours of human physiology, 4 hours of histology, and 6 hours of upper-level animal-based courses), 8 hours of chemistry, 8 hours of physics, 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 and Imaging Sciences: Students entering this program should determine the specific admission requirements from the school(s) 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 entering this program should determine the specific admission requirements from the school(s) of their choice at an early date. 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 6-11 hours of 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 work experience directly related to their academic major. 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 310V (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.

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 King Fahd Center for Middle East and Islamic Studies offers four-year and two-year undergraduate scholarships for superior students interested in pursuing the study of the Middle East or Islam.
In addition, students may compete for a number of privately endowed scholarships, which are awarded on a competitive basis to those who qualify. Application for these general Fulbright College scholarships and awards is made through the Office of the Dean, 525 Old Main. Students may obtain more detailed information about the above-named scholarships and and other Fulbright College scholarships 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 Delta (pre-medical, medical technology, pre-dental)
- Alpha Kappa Delta (sociology)
- Alpha Psi 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 (social work)
- 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 46),
   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.F.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 residency 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. 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.

Fullbright College Senior 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 “Fullbright 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**

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 eight 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
   - 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 World Languages, Literatures, and Cultures.
   - PHIL 2003 or PHIL 2103 3
   - MATH 1203 and one of the following five courses: 3-7
     - MATH 2053, MATH 2043, MATH 2053, MATH 2183, or 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 3
     - 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

- University of Arkansas, Fayetteville
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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 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 (at least 3 hours must be taken in anthropology, economics, psychology, or sociology, with not more than one course taken from any one department [PSYC 2003 and SOCI 2013 required for BSW Social Work majors])

COMM 1313
HIST 1003, HIST 1013 or HIST 1113, HIST 1123
WLIT 1113 and 3 hours to be chosen from WLIT 1123, a foreign language literature course, any other world literature course, CLST 1003, or CLST 1013

4. Completion of the requirements for one of the majors described in the section titled Majors and Courses of Instruction. Second or dual majors may be chosen from the following fields:
   - African-American Studies
   - European Studies
   - Latin American Studies
   - Middle East Studies
   - Russian Studies

See page 126 for the combined academic and medical degree.
See page 115 for minors.

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, MILS 2012, AERO 2011, AERO 2021, and 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.

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, AGED, DEAC, EXED, HLSC, ITED, MILS, PEAC, PHED, RECR, UNIV, VOED.

   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 6
   - Advanced Composition Requirement (see page 41) 0-3
   - HIST 2003, HIST 2103, OR PLSC 2003 3

3. College requirements:
   - 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. 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) 9
   - HIST 1003, HIST 1013 or HIST 1113, HIST 1123 6
   - Social sciences, to be selected from: ANTH 1023, ECON 2013, ECON 2143, GEOG 2003, PSYC 2003, SOCI 2013 3
   - 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

4. Completion of the requirements for one of the majors described in the section entitled Degree Programs and Courses. Majors may be chosen in the following fields:
   - Biology
   - Chemistry
   - Earth Science
   - Geology
   - Mathematics
   - Physics
See page 126 for the combined academic and medical degree.
See page 115 for minors.

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, MILS 2012, AERO 2011, AERO 2021, and 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, at left.

7. See item #7, at left.

8. See item #8, at left.

9. See item #9, at left.

10. See item #10, at left.

Bachelor of Fine Arts

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>Bachelor of Fine Arts</td>
</tr>
<tr>
<td>1. A minimum of 128 semester hours.</td>
</tr>
<tr>
<td>2. University Core:</td>
</tr>
<tr>
<td>ENGL 1013, ENGL 1023, Composition I, II</td>
</tr>
<tr>
<td>Advanced Composition Requirement (see page 41)</td>
</tr>
<tr>
<td>HIST 2003 or 2013 or PLSC 2003</td>
</tr>
<tr>
<td>3. College requirements:</td>
</tr>
<tr>
<td>Natural Sciences</td>
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<tr>
<td>4 hours to be selected from</td>
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<tr>
<td>PHYS 1023/1021L</td>
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<tr>
<td>CHEM 1053/1051L</td>
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<td>ASTR 2003/2001L</td>
</tr>
<tr>
<td>GEOL 1113/1111L</td>
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<tr>
<td>4 hours to be selected from</td>
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<tr>
<td>ANTH 1013/1011L</td>
</tr>
<tr>
<td>BIOL 1543/1541L</td>
</tr>
<tr>
<td>BIOL 1613/1611L or</td>
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<tr>
<td>BIOL 1603/1601L</td>
</tr>
<tr>
<td>Social sciences, to be selected from:</td>
</tr>
<tr>
<td>ANTH 1023</td>
</tr>
<tr>
<td>ECON 2013, ECON 2143</td>
</tr>
<tr>
<td>GEOG 2003</td>
</tr>
<tr>
<td>PSYC 2003</td>
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<tr>
<td>(PSYC 2003 is required for art education majors.)</td>
</tr>
<tr>
<td>SOCI 2013, SOCI 2033</td>
</tr>
<tr>
<td>Foreign language (Depending upon placement)</td>
</tr>
<tr>
<td>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.)</td>
</tr>
<tr>
<td>WLIT 1113, World literature</td>
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<tr>
<td>MLIT 1003, Fine arts</td>
</tr>
<tr>
<td>Natural sciences</td>
</tr>
<tr>
<td>(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)</td>
</tr>
<tr>
<td>HIST 1003, HIST 1013 or HIST 1113, HIST 1123</td>
</tr>
<tr>
<td>MATH 1203</td>
</tr>
<tr>
<td>Social sciences to be selected from:</td>
</tr>
<tr>
<td>ANTH 1023</td>
</tr>
<tr>
<td>ECON 2013, ECON 2143</td>
</tr>
<tr>
<td>GEOG 2003</td>
</tr>
<tr>
<td>PSYC 2003</td>
</tr>
<tr>
<td>SOCI 2013, SOCI 2033</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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 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.</td>
</tr>
<tr>
<td>6. See item #6, page 124.</td>
</tr>
<tr>
<td>7. See item #7, page 124.</td>
</tr>
<tr>
<td>8. See item #8, page 124.</td>
</tr>
</tbody>
</table>
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 at least a 3.5 high school grade point average and a minimum ACT composite score of 28 or 1240 SAT. A current Fulbright College student must have a University of Arkansas grade point average of 3.5 or above and a faculty recommendation from the department of study.

A student who successfully completes a program of Honors Studies within Fulbright College is eligible to receive a baccalaureate degree with the distinction Fulbright College Scholar Cum Laude, or Departmental Scholar Cum Laude in the major field of study. Higher distinctions of Magna Cum Laude or Summa Cum Laude may be awarded to outstanding honors students by recommendation of the Fulbright College Honor 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.

Requirements for the Fulbright College Scholars Program:
Credit or exemption for University Core in English composition, including ENGL 1013, 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 or above, 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.W., B.S., B.M. and B.F.A. degree programs.

Honors Core Curriculum

Bachelor of Arts or Bachelor of Social Work Degree

<table>
<thead>
<tr>
<th>Humanities and Social Sciences Option 1</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core – 27 hours; 15 hours must be at honors level</td>
<td></td>
</tr>
<tr>
<td>World Civilization</td>
<td>6</td>
</tr>
<tr>
<td>HIST 1113H or 1113 World Civilization I</td>
<td></td>
</tr>
<tr>
<td>HIST 1123H or 1123 World Civilization II</td>
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</tr>
<tr>
<td>World Literature</td>
<td>6</td>
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<tr>
<td>WLIT 1113H or 1113 World Literature I</td>
<td></td>
</tr>
<tr>
<td>WLIT 1123H or 1123 World Literature II</td>
<td></td>
</tr>
</tbody>
</table>

J. William Fulbright College of Arts and Sciences
Philosophy
PHIL 2003H or 2003 Introduction to Philosophy

Fine Arts
ARCH 1003H or 1003 Architecture Lecture
ARHS 1003H or 1003 Art Lecture
COMM 1003H or 1003 Film Lecture
DANC 1003H or 1003 Introduction to Dance
DRAM 1003 or 1003 Theater Lecture
MLIT 1003H or 1003 Music Literature

Social Sciences
ANTH 1023H or 1023 Cultural Anthropology
GEOG 2003 World Regional Geography
ECON 2013H or 2013 Macroeconomics
ECON 2023H or 2023 Microeconomics
PSYC 2003H or 2003 General Psychology (required for BSW Social Work majors)
SOCI 2013H or 2013 General Sociology (required for BSW Social Work majors)

Humanities and Social Sciences Option 2
Core – 28 hours; 16 hours must be at honors level
HUMAN 1114H, HUMAN 1124H, 16
HUMAN 2114H, HUMAN 2124H
Philosophy
PHIL 2003H or 2003 Introduction to Philosophy

Fine Arts
ARCH 1003H or 1003 Architecture Lecture
ARHS 1003H or 1003 Art Lecture
COMM 1003H or 1003 Film Lecture
DANC 1003H or 1003 Introduction to Dance
DRAM 1003 or 1003 Theater Lecture
MLIT 1003H or 1003 Music Literature

Social Sciences
ANTH 1023H or 1023 Cultural Anthropology
GEOG 2003 World Regional Geography
ECON 2013H or 2013 Macroeconomics
ECON 2023H or 023 Microeconomics
PSYC 2003H or 2003 General Psychology (required for BSW Social Work majors)
SOCI 2013H or 2013 General Sociology (required for BSW Social Work majors)

Students pursuing either option must also complete the following:
Honors Colloquium
Social Science Colloquium
Natural Science or Math Colloquium

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 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 Sciences
At least 4 hours must be chosen from biological and 4 hours from physical

Biological Sciences
ANTH 1013/1011M or 1013/1011L Intro to Biological Anthropology
BIOL 1543/1541M or 1543/1541L Principles of Biology
BIOL 1603/1601M or 1603/1601L Principles of Zoology
BIOL 1613/1611M or 1613/1611L Plant Biology

Physical Sciences
ASTR 2003H/2001M or 2003/2001L Survey of the Universe
CHEM 1103/1101L University Chemistry I
CHEM 1123H/1121M or 1123/1121L University Chemistry II
GEOL 1113H/1111M or 1113/1111L General Geology
GEOL 1133H/1131L Environmental Geology
PHYS 1023H/1021M or 1023/1021L Physics and Human Affairs
PHYS 2054H/(M) or 2054/(L) University Physics I
PHYS 2074H/(M) or 2074/(L) University Physics II

Mathematics
MATH 2033 Mathematics in Society
MATH 2043 Survey of Calculus
MATH 2053 Finite Math
MATH 2183 Mathematical Reasoning
MATH 2554H or 2554 Calculus I
MATH 2564H or 2564 Calculus II
MATH 2574H or 2574 Calculus III

Bachelor of Science Degree

Humanities and Social Sciences Option 1
Core – 18 hours; 9 hours must be at honors level

World Civilization
HIST 1113 or 1113 World Civilization I
HIST 1123 or 1123 World Civilization II

Fine Arts, World Literature, Philosophy
Must be selected from two different areas.

Fine Arts
ARCH 1003H or 1003 Architecture Lecture
ARHS 1003H or 1003 Art Lecture
COMM 1003H or 1003 Film Lecture
DANC 1003H or 1003 Introduction to Dance
DRAM 1003 or 1003 Theater Lecture
MLIT 1003H or 1003 Music Lecture

World Literature
WLIT 1113H or 1113 World Literature I
WLIT 1123H or 1123 World Literature II or foreign language course, any other WLIT course, CLST 1003 or CLST 1013

Philosophy
PHIL 2003H or 2003 Introduction to Philosophy

Social Science
Select from the following:
ANTH 1023H or 1023 Cultural Anthropology
ECON 2013H or 2013 Macroeconomics
ECON 2023H or 2023 Microeconomics  
GEOG 2003 World Regional Geography  
PSYC 2003H or 2003 General Psychology  
SOCI 2013H or 2013 General Sociology

**Humanities and Social Sciences Option 2**  
**Core – 18 hours; 9 hours must be at honors level**  
HUMN 114H, HUMN 114H, HUMN 214H  
12

**Humanities/Fine Arts/World Literature/Philosophy**  
Select one course from humanities, fine arts, world literature or philosophy:  
- **Humanities**  
  HUMN 2124H  
- **Fine Arts**  
  ARCH 1003H or 1003 Architecture Lecture  
  ARHS 1003H or 1003 Art Lecture  
  COMM 1003H or 1003 Film Lecture  
  DANC 1003H or 1003 Introduction to Dance  
  DRAM 1003H or 1003 Theater Lecture  
  MLIT 1003H or 1003 Music Lecture  
- **World Literature**  
  WLIT 111H or 1113 World Literature I  
  WLIT 112H or 1123 World Literature II or foreign language course, any other WLIT course, CLST 1003 or CLST 1013  
- **Philosophy**  
  PHIL 2003H or 2003 Introduction to Philosophy  

**Social Sciences**  
- ANTH 1023H or 1023 Cultural Anthropology  
- ECON 2013H or 2013 Macroeconomics  
- ECON 2023H or 2023 Microeconomics  
- GEOG 2003 World Regional Geography  
- PSYC 2003H or 2003 General Psychology  
- SOCI 2013H or 2013 General Sociology  

**Students pursuing either option must also complete the following:**  
- Honors Colloquium  
  - Humanities Colloquium  
  - Social Science Colloquium  
  - Natural Science or Math Colloquium  

Natural Sciences and Mathematics  
Core – 20 hours; 16 hours must be at honors level  
Complete 16 honors hours from at least two of the five different areas below. At least one class from Area 5 is required, although not necessarily at the Honors level.  

**Natural Sciences**  
**Area 1**  
ASTR 2003H/2001M Survey of the Universe  
PHYS 2054H/2054M University Physics I  
PHYS 2074H/2074M University Physics II  
**Area 2**  
BIOL 1543/1541M Principles of Biology  
BIOL 1603/1601M Principles of Zoology  
BIOL 1613/1611M Plant Biology  
BIOL 2013/2011M General Microbiology  
**Area 3**  
CHEM 1103/1101L University Chemistry I  
CHEM 1123H/1121M University Chemistry II  
CHEM 1213/1211L Chemistry I for Majors  
CHEM 1223/1221L Chemistry II for Majors  

CHEM 3603H/3602M Organic Chemistry I  
CHEM 3613H/3612M Organic Chemistry II  
**Area 4**  
GEOL 1113H/1111M General Geology  
GEOL 1133/1131L Environmental Geology  

**Mathematics**  
**Area 5**  
MATH 2554H or 2554 Calculus I  
MATH 2564H or 2564 Calculus II  
MATH 2574H or 2574 Calculus III

**Foreign Language:** (depending upon placement)  
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.

**Bachelor of Music Degree**

**Hours**

**Humanities Option 1**  
World Civilization  
HIST 1113H, HIST 1123H  
6

World Literature  
WLIT 1113H  
3

Fine Arts  
MLIT 1003H  
3

Colloquium in Humanities  
Course offerings vary each semester.  
3

**Students pursuing either option must also complete the following:**  
Foreign Language: (depending upon placement)  
See your adviser.

**Social Science**  
Select from the following.  
ANTH 1023H, GEOG 2103H, ECON 2013H,  
ECON 2023H, ECON 2013 and ECON 2023,  
PSYC 2003H, SOCI 2013H  
0-6

**Natural Sciences:**  
Eight hours of honors credit to be chosen from the lab sciences. See adviser for specific science course listing.  
8

**Students pursuing either option must also complete the following:**  
Foreign Language: (depending upon placement)  
See your adviser.

**Social Science**  
Select from the following.  
ANTH 1023H, GEOG 2103H, ECON 2013H,  
ECON 2023H, ECON 2013 and ECON 2023,  
PSYC 2003H, SOCI 2013H  
3

**Natural Sciences:**  
Eight hours of honors credit to be chosen from the lab sciences. See adviser for specific science course listing.  
8
Mathematics: Fulbright Scholars must fulfill the math requirement of MATH 2043 or MATH 2053 or MATH 2183 or MATH 2554.

Bachelor of Fine Arts Degree

<table>
<thead>
<tr>
<th>Humanities Option</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>World Civilization</strong></td>
<td>6</td>
</tr>
<tr>
<td>HIST 1113H, HIST 1123H</td>
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<tr>
<td><strong>World Literature</strong></td>
<td>3</td>
</tr>
<tr>
<td>WLIT 1113H</td>
<td></td>
</tr>
<tr>
<td><strong>Fine Arts, World Literature II, and Philosophy</strong></td>
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<tr>
<td>Fine Arts</td>
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</tr>
<tr>
<td>COMM 1003H, DANC 1003H, DRAM 1003H, MLIT 1003H</td>
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<tr>
<td>Philosophy</td>
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<tr>
<td>PHIL 2003H</td>
<td></td>
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<tr>
<td><strong>Colloquium in Humanities</strong></td>
<td>3</td>
</tr>
</tbody>
</table>
| Course offerings vary each semester.

**Humanities Option 2**

<table>
<thead>
<tr>
<th>Honors Roots of Culture</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMN 1114H, HUMN 1124H, HUMN 2114H</td>
<td></td>
</tr>
<tr>
<td><strong>Honors Roots of Culture, Philosophy, Humanities Colloquium</strong></td>
<td>6-7</td>
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<tr>
<td>Honors Roots of Culture</td>
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<tr>
<td>HUMN 2124H</td>
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<tr>
<td>Philosophy</td>
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<tr>
<td>PHIL 2003H</td>
<td></td>
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<tr>
<td><strong>Colloquium in Humanities</strong></td>
<td>3</td>
</tr>
</tbody>
</table>
| Course offerings vary each semester.

**Students pursuing either option must also complete the following:**

- Foreign Language: (depending on 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**
  - Eight hours of honors to be chosen from lab sciences 8
  - 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.

**ACREDITATIONS**

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 on 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 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 advisor;
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; JoAnn 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
rcrochra@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 requirement (4A) and PLSC 3223 to satisfy requirement (4C). Either HIST 4563, or HIST 4573 must also be completed in satisfying requirement (4D). These requirements total nine hours, leaving six elective hours to complete requirement (4D).

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 areas a, b, c, d or e (as needed) |
| 3 | MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554 |
| 3 | ENGL 1023 Composition II |
| 3 | American Literature Course or Core from areas a, b, c, d or e (as needed) |
| 3 | Core from area f (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 areas a, b, c, d or e (as needed) |
| 3 | 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 areas 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) |
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
- 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 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 3263 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

- Requirements for the Certificate in American Studies for International Students Not Seeking a University of Arkansas Degree: International 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 requirement (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 independent 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)

Peter S. Ungar
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, Kwanme, Mainfort, Rose, Sabo, Schneider (M.J.), Swedenburg, Ungar
- Professors Emeriti Davis, Hoffman (Michael), McGimsey
- Associate Professors D’Alisera, Erickson, Plavcan
- Associate Professor Emeritus Schneider (W.)
- Assistant Professors Casana, Nolan
- 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 understand human similarities and differences.

Requirements for a Major in Anthropology: 30 semester hours including 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 Departmental 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>
</tr>
<tr>
<td>3 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3 ANTH 1023 Introduction to Cultural Anthropology</td>
</tr>
<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>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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<tr>
<td>3 MATH 2043, 2053, 2183, 2554 or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 ANTH 1023/1011L Introduction to Biological Anthropology and Laboratory</td>
</tr>
<tr>
<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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<td>16 Semester Hours</td>
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<th>Fall Semester Year 2</th>
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<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 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 General Elective</td>
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<tr>
<td>16 Semester Hours</td>
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<tr>
<th>Spring Semester Year 2</th>
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<tbody>
<tr>
<td>3 ‡Core from area g (if needed) or †Advanced Level Elective</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>3 General Elective</td>
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<td>15 Semester Hours</td>
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<tr>
<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3 ‡ANTH Upper 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>4 Core from area f (as needed)</td>
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<tr>
<td>3 General Elective</td>
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<td>16 Semester Hours</td>
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<th>Spring Semester Year 3</th>
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<tbody>
<tr>
<td>3 ‡ANTH Upper Level Elective</td>
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<tr>
<td>3 †Core from area g (if still 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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<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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<table>
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<tr>
<td>3 ‡ANTH 4013 History of Anthropological Thought</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 †Advanced Level Elective</td>
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<tr>
<td>3 General Elective</td>
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<tr>
<td>15 Semester Hours</td>
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<tr>
<td>124 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.

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 3303 (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 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 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>
</tr>
<tr>
<td>3 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3 ANTH 1023 Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>15 Semester Hours</td>
</tr>
</tbody>
</table>
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, GEOL 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

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://art.uark.edu  
artinfo@uark.edu

- Professors Jacobs, Peven  
- Professor Emeriti Brody, Harington, Ross, Stout  
- Associate Professors Golden, Hulen, La Porte, Musgnug, Nelson, Newman  
- Assistant Professors Happood, 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 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 4823 (History of Graphic Design). In addition to the freshman year course requirements.

A minimum of 43 semester hours, including ARTS 1313, ARTS 1323, 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 4823 (History of Graphic Design). In addition to the freshman year course requirements.

**A Minimum of 43 Hours**

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>4 ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>4 ANTH 1013/1011L Introduction to Biological Anthropology and Lab</td>
<td></td>
</tr>
<tr>
<td>3 SOCI 2013 General Sociology</td>
<td></td>
</tr>
<tr>
<td>3 ‡ANTH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, or d (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 General Elective</td>
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<tr>
<td>16 Semester Hours</td>
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<tr>
<td>Fall Semester Year 2</td>
<td></td>
</tr>
<tr>
<td>4 ‡‡SOCI or ANTH 3000-4000 Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 †Core from area g (if needed) or †Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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</tr>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td></td>
</tr>
<tr>
<td>3 Core from area a (as needed)</td>
<td></td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
</tr>
<tr>
<td>Spring Semester Year 3</td>
<td></td>
</tr>
<tr>
<td>4 ‡‡SOCI 3303/3301L, Social Data &amp; Analysis and Lab</td>
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</tr>
<tr>
<td>3 †Core from area g (if needed) or †Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
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<td>2 General Elective</td>
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<tr>
<td>16 Semester Hours</td>
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<tr>
<td>Fall Semester Year 4</td>
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</tr>
<tr>
<td>4 ‡‡SOCI 3313 Social Research</td>
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</tr>
<tr>
<td>3 ‡‡SOCI or ANTH 3000-4000 Level Elective</td>
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</tr>
<tr>
<td>3 Core from areas a, b, c, or d (as needed)</td>
<td></td>
</tr>
<tr>
<td>4 Core from area a (as needed)</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>3 ‡‡ANTH 4013 History of Anthropological Thought</td>
<td></td>
</tr>
<tr>
<td>3 ‡‡SOCI 4023 Social Theory</td>
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<tr>
<td>3 General Elective</td>
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<td>3 General Elective</td>
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<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
<tr>
<td>124 Total Hours</td>
<td></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.

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.
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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</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 ARTS 1013 Drawing Fundamentals 1 or ARTS 1313 2-Dimensional Design</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>15 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>3 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 ARTS 1013 Drawing Fundamentals 1 or ARTS 1313 Two-Dimensional Design (as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>16 Semester Hours</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †ARTS 2013 Figure Drawing I or ARTS 1323 Three-Dimensional Design</td>
</tr>
<tr>
<td>3 ARHS 2913 Art History Survey 1</td>
</tr>
<tr>
<td>3 ARTS 2313 Computer Applications in Art</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
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<td>Core from area f (as needed)</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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</thead>
<tbody>
<tr>
<td>3 †Core from area g (if needed) or †Advanced Level Elective</td>
</tr>
<tr>
<td>3 †ARTS 2013 Figure Drawing I or ARTS 1323 Three-Dimensional Design (as needed)</td>
</tr>
<tr>
<td>3 ARHS 2923 Art History Survey 2</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
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<tr>
<td>16 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †ARTS primary or secondary concentration</td>
</tr>
<tr>
<td>3 †Upper Level ARHS Group 1 or 2 (below)</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>16 Semester Hours</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †ARTS primary or secondary concentration</td>
</tr>
<tr>
<td>3 †ARHS Upper Level Group 1 or 2 (below, as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>15 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 †ARTS primary or secondary concentration</td>
</tr>
<tr>
<td>3 †ARTS primary or secondary concentration</td>
</tr>
<tr>
<td>3 †Upper Level ARSC Elective</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>15 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 †ARTS 4921 Senior Portfolio Review</td>
</tr>
</tbody>
</table>

### Requirements for a Major in Art with a Concentration in Art History/Criticism: A minimum of 39 semester hours, including ARTS 1013, ARTS 1313 or ARTS 1323, ARHS 2913 and ARHS 2923. In addition to the preceding requirements, three courses selected from ARHS 4833, ARHS 4843, ARHS 4853, ARHS 4863, ARHS 4873, and ARHS 4983; and three courses selected from ARHS 4813, ARHS 4883, ARHS 4893, ARHS 4913, ARHS 4923, and ARHS 4933. 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 requirement.

### 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>
</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 ARHS 2913 Art History Survey 1</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
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<tr>
<td>15 Semester Hours</td>
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</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>3 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 ARHS 2923 Art History Survey 2</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>16 Semester 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 Fullbright 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
### Degree Requirements:

The Bachelor of Fine Arts degree will be awarded to students who earn an overall grade-point average of 2.00 and complete the following requirements:

- **Arts Courses**: 15 semester hours
  - ARTS 1313 Two-Dimensional Design or ARTS 1323 Three-Dimensional Design
  - Upper Level ARHS Group 1 or 2
- **General Elective**: 16 semester hours
- **Total Hours**: 124

### 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 or her intent to minor. The minor is especially suitable 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 studies 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. Students in the B.F.A. program whose grade point average falls below 3.0 in art classes for two consecutive semesters will be dismissed from the B.F.A. program. 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 4921, 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-semeseter degree plan should see page 42 in the Academic Regulations chapter for university requirements of the program. The following eight-semeseter 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.

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### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1203 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1013 Drawing Fundamentals I</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1313 Two-Dimensional Design or ARTS 1323 Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>15</td>
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### Spring Semester Year 1

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1023 Composition II</td>
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<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (needed only if starting at 1003 level in foreign language)</td>
<td>0-3</td>
</tr>
<tr>
<td>† ARTS 2013 Figure Drawing or † Arts Primary Studio Concentration 1</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 1313 2-Dimensional Design or ARTS 1323 3-Dimensional Design (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>ARTS 2313 Computer Applications in Art</td>
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### Fall Semester Year 2

<table>
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<tr>
<td>ARTS Elective</td>
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<td>† ARTS 2013 Figure Drawing (if needed) or † Arts Primary Studio Concentration 1</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>† Core from area g (if required; may also take in semester 6) or ARTS Elective</td>
<td>3</td>
</tr>
<tr>
<td>ARHS 2913 Art History Survey I</td>
<td>3</td>
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### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>† Advanced Foundations Course</td>
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<tr>
<td>ARTS Elective</td>
<td>3</td>
</tr>
<tr>
<td>† ARTS Primary Studio Concentration 2</td>
<td>4</td>
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<tr>
<td>Core from area f</td>
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<td>ARHS 2923 Art History Survey II</td>
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### Fall Semester Year 3

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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>† Advanced Foundations Course</td>
<td>3</td>
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<tr>
<td>† ARTS Primary Studio Concentration 3</td>
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</tr>
<tr>
<td>ARTS Elective</td>
<td>3</td>
</tr>
<tr>
<td>† ARHS Art History upper level</td>
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<tr>
<td>Core from area a, b, c, d or e (as needed)</td>
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</tr>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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### Spring Semester Year 3

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>† ARTS Primary Studio Concentration 4</td>
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</tr>
<tr>
<td>ARTS Elective</td>
<td>3</td>
</tr>
<tr>
<td>† Advanced Foundations Course (below) or ARTS Upper-Level Elective</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>† ARHS Art History upper level</td>
<td>3</td>
</tr>
<tr>
<td>† Core from area g (if needed) or ARTS Elective</td>
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### Fall Semester Year 4

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</thead>
<tbody>
<tr>
<td>† ARTS Primary Concentration 5</td>
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</tr>
<tr>
<td>ARTS Elective or Advanced Foundations Course (below, if needed)</td>
<td>3</td>
</tr>
<tr>
<td>† ARHS 4943 Seminar in Art Criticism</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>4</td>
</tr>
<tr>
<td>Core from area f</td>
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</tbody>
</table>

### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ARTS Elective (may be in primary area)</td>
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</tr>
<tr>
<td>† ARTS Primary Studio Concentration 6</td>
<td>3</td>
</tr>
<tr>
<td>† ARTS 4921 Senior Portfolio Review</td>
<td>3</td>
</tr>
<tr>
<td>† PHIL 4403 Philosophy of Art</td>
<td>3</td>
</tr>
<tr>
<td>ARTS Elective (if needed)</td>
<td></td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td></td>
</tr>
</tbody>
</table>

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### Advanced Foundation 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)

Requirements for the Bachelor of Fine Arts Degree with a Concentration in Art Education: A minimum of 64 hours to include ARTS 1013, ARTS 1313, ARTS 1323, ARTS 2003, ARTS 2013, ARTS 2313, ARTS 3333, ARTS 3023 or ARTS 4343, and 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 2913, ARHS 2923, and ARHS 4943, at least 6 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, ETEC 2001, ETEC 2002L.
4. Obtain a “C” or better in ARED 3613, ARED 3643, ARED 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 at http://coehp.uark.edu/Evaluation_for_Art_Internship.doc.
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.

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, 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 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.

**Fall Semester Year 1**
3  ENGL 1013 Composition I
3  MATH 1203 College Algebra
3  ARTS 1013 Drawing Fundamentals I

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
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<td>3  ARTS 2013 Figure Drawing or ARTS Primary Studio Concentration</td>
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<td>3  ARHS 2913 Art History Survey I</td>
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<td>3  PSYC 2003 General Psychology</td>
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<td>3  Arts from area f (as needed)</td>
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<td>3  CIED 3033 Classroom Learning Theory</td>
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<tr>
<td>3  Arts from area f (as needed)</td>
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<tr>
<td>3  IARED 3633 Teaching Art in Elementary schools</td>
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<tr>
<td>3  ARTS Advanced Foundations Course (listed below)</td>
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Advanced Foundations Courses:
ARTS 2003 Drawing Fundamentals II (Fall and Spring)
ARTS 2313 Computer Applications in Art (Fall and Spring)
ARTS 3333 Color Studies (Fall)
ARTS 3023 Drawing III (Fall) or ARTS 4343 Advanced Design (Spring)

Note: In addition to and after completion of the program listed above, for certification, the student must complete an additional 12 hours of Student Teaching in Art, ARTS 476V and take the Praxis II exams (concurrent with enrollment in ARTS 476V).

For requirements for the M.F.A. degree program in art, see the Graduate School Catalog.

SEE PAGE 318 FOR ART (ARTS) COURSES

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 Fulbright College.

SEE PAGE 318 FOR ARTS AND SCIENCES (ARSC) COURSES

ASIAN STUDIES (AIST)
Ka Zeng
Chair of Studies
428 Old Main
479-575-3356

Requirements for the Asian Studies Combined Major:
Language Competence: Students must complete CHIN 2013 (or equivalent) or JAPN 2013 (or equivalent). Subject to the approval of the Director of Studies, students with language competence in one language (Chinese or Japanese) may receive some elective credit for competence level courses in the other language. Proficiency in other Asian languages may also satisfy this requirement.

In addition to the above language requirement, students must complete 21 hours in Asia-related courses, subject to the following conditions:
Colloquium (3-6 hours): Students must complete at least three hours in the interdisciplinary colloquium, AIST 4003/AIST 4003H. The AIST Colloquium may be repeated, provided the topic is different.
Electives (15-18 hours): In addition to the above requirements and the requirements for the departmental major, students must complete 15-18 hours of Asia-related courses (AIST approved electives listed below) subject to the following conditions:
1. Students must complete 6 hours of history courses;
2. Students must complete 6 hours of social science courses;
3. Courses must be selected from at least three different departments;
4. A maximum of nine hours may be submitted from any one department;
5. In addition, the following may be applied toward the major:
   a. Up to 6 hours of upper-level language courses (such as CHIN 3003, CHIN 3033, CHIN 3103, JAPN 3003, JAPN 3013, JAPN 3033);
   b. Up to 6 hours of credits in an approved study-abroad program;
   c. Up to 6 hours of CHIN or JAPN 3983/3983H (Special Studies)
   d. Other Asia-related courses with approval of the director of Asian Studies

Requirements for a Minor in Asian Studies:
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 Fulbright 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:
Approved AIST Electives
ECON 3933 Japanese Economic System
ECON 4633 International Trade Policy
HIST 3503 Far East in Modern Times
HIST 4813 History of China to 1644
HIST 4823 Modern China
HIST 4843 Modern Japan
JAPN 4213 Japanese Culture
JAPN 4313/4313H Language and Society of Japan
MUSY 4113H Honors Ethnomusicology
MUSY 4313H Special Topics in Asian and Middle Eastern Musics
MUSY 477V/477VH Independent Research in Ethnomusicology
PLSC 3503 Government and Politics of East Asia
PLSC 4823 Foreign Policy of East Asia

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)
Frederick W. Spiegel
Chair of the Department
601 Science Engineering
479-575-3251
http://biology.uark.edu/
- University Professors James, Smith (K.)
- Professors Beaupre, Durdik, Etges, Henry, Kral, Rhoads, Spiegel, Walker
- Professors Emeriti Dale, Evans, Johnston, Kilambi, Martin, Meyer, Smith (E.), Talburt
- Research Professors Kremmentz, Stephenson
- Associate Professors Brown, Ivey, Lehmann, McNabb, Pinto, Sagers
- Associate Professors Emeriti Bailey, Lane, Wickliff
- Associate Research Professor Magoulick
- Assistant Professors Curtin, Da, Evans-White, Huxel, Lessner, Silverman
- Assistant Research Professors Goforth, Radwell
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 their education in basic or applied biology in graduate or professional school. A Bachelor of Arts degree is available for students who do not necessarily plan on a career as a professional biologist but who desire a good foundation 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.)

**NOTE:** 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, PHYS 2033/2031L or PHYS 2054/2050L, PHYS 2074/2070L
3. MATH 2554 (MATH 2564 is recommended)
4. STAT 2023 or STAT 4003/4001L or equivalent.

**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.

### Fall Semester Year 1
- **ENGL 1013** Composition I
- **MATH 1213** or 1285 or **MATH 2554**
- **BIOL 1543**/BIOL 1541L, Principles of Biology and Lab
- **CHEM 1103**/CHEM 1101L (optional), University Chemistry I
- Core from areas a, b, c, or e (as needed)

### Spring Semester Year 1
- **ENGL 1023** Composition II
- **MATH 2554** or Core from areas a, b, c, or e (as needed)
- **CHEM 1123/CHEM 1121L** University Chemistry II and Lab
- Core from areas a, b, c, or e (as needed)
- **ENGL 1023** Composition II

### Fall Semester Year 2
- **BIOL 2533** Cell (BIOL 2531L optional)
- **CHEM 3603/CHEM 3601L** Organic Chemistry I and Lab
- Core from areas a, b, c, or e (as needed)
- **BIOL lab course 2000-level or above**
- General Elective

### Spring Semester Year 2
- **BIOL 2533** Cell (BIOL 2531L optional) or **BIOL 2323**/Genetics (BIOL 2321L optional)
- **CHEM 3613/CHEM 3611L** Organic Chemistry II and Lab
- Core from area f (if needed) or Core from areas a, b, c, or e (as needed)
- Core from areas a, b, c, or e (as needed)
- Core from areas a, b, c, or e (as needed)

### Fall Semester Year 3
- **BIOL 2323**/Genetics (BIOL 2321L optional) or **BIOL 3023** Evolutionary Biology
- **CHEM 3813** Introduction to Biochemistry
- **PHYS 2033**/PHYS 2031L College Physics I and Lab
- Core from area f (if needed) or Core from areas a, b, c, or e (as needed)
- Core from areas a, b, c, or e (as needed)

### Spring Semester Year 3
- **BIOL 3023** Evolutionary Biology (if still needed) or **BIOL 3000-4000** Level Elective (below)
- **BIOL 3863** (BIOL 3611L optional), General Ecology
- **BIOL 2001** Bibliographic Practicum
- **PHYS 2033**/PHYS 2031L College Physics II and Lab
- Core from areas a, b, c, or e (as needed)

### Fall Semester Year 4
- **BIOL 3000-4000** Level Elective (below)
- **BIOL 4000** Level Elective (below)
- **STATS 2023** Biostatistics
- Core from areas a, b, c, or e (as needed)
- Core from areas a, b, c, or e (as needed)

### Spring Semester Year 4
- **BIOL 4000** Level Elective (below)
- **BIOL 4000** Level Elective (below)
- **BIOL 3000-4000** Level Elective (below)
- Core from areas a, b, c, or e (as needed)
- Core from areas a, b, c, or e (as needed)

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† Meets 40-hour advanced credit hour requirement. See 3 on Graduation Requirements Checklist or see the Catalog of Studies.
‡ Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See 2b on Graduation Requirements Checklist or see the Catalog of Studies.
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 2323 and BIOL 2533)
- BIOL 4424 Mycology (BIOL 2323 and BIOL 2533)
- BIOL 4523 Plant Ecology (BIOL 3863)
- BIOL 4724 Protistology (Prerequisite or Corequisite BIOL 3023, Prerequisite BIOL 2323 and BIOL 2533)

**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 2533 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 2323 and BIOL 2533)
- 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

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 2013/211L
  ii. Genetics: BIOL 2323/2321L or BIOL 4233
  iii. Morphology: BIOL 4104, BIOL 4404, 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 2031/2031L, 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.

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<tr>
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<th>3-4 † BIOL 1543/BIOL 1541L Principles of Biology and Lab</th>
<th>15-17 Semester Hours</th>
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<tr>
<td>3-4 † 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>
<td>15-17 Semester Hours</td>
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<tr>
<td>4 BIOL 1543/BIOL 1541L Principles of Biology and Lab</td>
<td>15-17 Semester Hours</td>
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<td>4 † MATH 2043/2041L Survey of Calculus or †MATH 2554</td>
<td>15-17 Semester Hours</td>
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<tr>
<td>3 CHEM 1103/ CHEM 1101L optional</td>
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<td>3 † ENGL 1013 Composition I</td>
<td>15-17 Semester Hours</td>
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<td>3-5 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>
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<th>3-4 † BIOL 1543/BIOL 1541L Principles of Biology and Lab</th>
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<td>15-17 Semester Hours</td>
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<td>4 CHEM 1123/CHEM 1121L</td>
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<th>15-17 Semester Hours</th>
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<tr>
<td>4 † BIOL 2213/ BIOL 2211L Human Phys. or BIOL 2323/ BIOL 2321L Gen. Genetics</td>
<td>15-17 Semester Hours</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>Fall Semester Year 3</td>
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<td>† BIOL from Botany group (see below)</td>
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| 17-18 Semester Hours |

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| 15-17* Semester Hours |

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<td>† BIOL 3000-4000 Level Elective from Microbiology group (below)</td>
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<td>† BIOL 3000-4000 Level Elective</td>
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<tr>
<td>† Upper Level Elective in Fullbright College (if needed for 24-hour rule) or General Elective</td>
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| 15-17* Semester Hours |
| 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 Fullbright 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 Plant Physiology *(BIOL 1543/1541L, BIOL 1603/1611L and general chemistry)*
- BIOL 4404 Comparative Botany *(BIOL 2323, BIOL 2533)*
- BIOL 4424 Mycology *(BIOL 2323 and BIOL 2533)*
- BIOL 4523 Plant Ecology *(BIOL 3863)*
- BIOL 4724 Protistology *(Prerequisite or Corequisite BIOL 3023, Prerequisite BIOL 2323 and BIOL 2533)*

**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 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 2323 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 in 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 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 successfully 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,
4. Completion of a paper, supervised by a Biological Sciences faculty member, in Special Problems (BiOL 480V)

NOTE: A student exercising Option 3 or 4 may not use the paper written for that option for credit in BiOL 498V.

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 321 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. All upper level minor requirements must be taken in residence.

Fullbright 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 3613 Managerial Uses of Accounting Info
- ACCT 3723 Intermediate Accounting I
- Plus an additional six hours selected from the following:
  - ACCT 3533 Accounting Technology
  - ACCT 3753 Intermediate Accounting II
  - 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 ERP 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 Development Fundamentals
- Plus an additional six hours from the following:
  - WCOB 4213 ERP Fundamentals
  - WCOB 4223 ERP 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 4563 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:
  - MKTG 4233 Integrated Marketing Communications
  - MKTG 3553 Consumer Behavior
  - MKTG 3633 Marketing Research
  - MKTG 4343 Selling and Sales Mgmt.
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, Millet, Pulay, Schäfer, Wilkins
- University Professors Hinton, Koepp, Sears
- University Professor Emeriti Cordes, Fry
- Professors Davis, Durham, Fritsch, Geren, Peng, Sites
- Professors Emeriti Blyholder, Johnson, Thoma
- Associate Professors Allison, McIntosh, Paul, Sakon
- Assistant Professors Adams, Heyes, Kumar, Tian, Vicic, Zheng
- 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, 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. Students who pass the CHEM 1103 Freshman Chemistry Proficiency Exam and enroll in CHEM 1123/1121L and receive a grade of "C" or better in these courses will also receive credit for CHEM 1103/1110L. 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.

| Fall Semester Year 1 | 3 | ENGL 1013 Composition I |
| | 4 | MATH 2554 Calculus I |
| | 4 | CHEM 1213/1211L Chem for Majors I or CHEM 1103/1101L University Chem I |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 17 | Semester Hours |

| Spring Semester Year 1 | 3 | ENGL 1023 Composition II |
| | 4 | MATH 2564 Calculus II |
| | 4 | CHEM 1223/1221L Chem for Majors II or CHEM 1123/1121L University Chem II |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 17 | Semester Hours |

| Fall Semester Year 2 | 4 | MATH 2674 Calculus III |
| | 4 | PHYS 2054/2050L University Physics I |
| | 5 | CHEM 3703/3702L Organic Chemistry I |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 16 | Semester Hours |

| Spring Semester Year 2 | 4 | PHYS 2074/2070L University Physics II |
| | 4 | CHEM 3713/3712L Organic Chemistry II for majors |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 3 | Core from areas a, b, c or e (as needed) |
| | 17 | Semester Hours |

| Fall Semester Year 3 | 4 | CHEM 3504 Physical Chemistry I |
| | 4 | CHEM 2262/2272 Analytical Chemistry Lecture/Lab |
| | 3-4 | BIOL 1543/1541L or Core from areas a, b, c, d, or e (as needed) |
| | 3 | Core from area f (if needed) or Core from areas a, b, c or e (as needed) |
| | 14-15 | Semester Hours |
three-hour (or more) general elective in place of a core area. Credit granted. Once all core requirements are met, students may substitute a requirement if hours may vary by individual, based on placement and previous area f (if needed) or Core from areas a, b, c or e (as needed).

### Core Requirement

Areas (areas a, b, c, d, e, and f) found on page 203 at the end of this chapter. Core

### 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, 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.

### Requirements for a B.S. degree with a Major in Chemistry, Bio-

### Physical 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 3813-3823, 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.

### 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, 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.

### Requirements for a B.S. degree with a Major in Chemistry, Bio-

### Chemistry Option

A minimum of 39 semester hours in chemistry including CHEM 1213/1211L, CHEM 1223/1221L, (or CHEM 1103/1101L, CHEM 1123/1121L), CHEM 2262, CHEM 2272, either CHEM 3504-3514/3512L or CHEM 3453/3451L, CHEM 3703/3702L, CHEM 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 4981 (senior thesis) during each of 3 different semesters, CHEM 5813-5843 or CHEM 3813-3823, 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.

### 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, 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.

### Requirements for a B.S. degree with a Major in Chemistry, Bio-

### Chemistry Option

A minimum of 39 semester hours in chemistry including CHEM 1213/1211L, CHEM 1223/1221L, (or CHEM 1103/1101L, CHEM 1123/1121L), CHEM 2262, CHEM 2272, either CHEM 3504-3514/3512L or CHEM 3453/3451L, CHEM 3703/3702L, CHEM 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 4981 (senior thesis) during each of 3 different semesters, CHEM 5813-5843 or CHEM 3813-3823, 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.

### 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, 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.
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.

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<td>4</td>
<td>††CHEM 3453/3451L Elements of Physical Chemistry</td>
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<td>3-4</td>
<td>††CHEM 4213/4211L Instrumental Analysis or ††CHEM 4123 Adv. Inorganic Chem. I</td>
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<td>BIOL 2033/2011L General Microbiology</td>
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<td>General Elective</td>
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<tbody>
<tr>
<td>3</td>
<td>††CHEM 4813H Biochemistry I</td>
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<td>3-4</td>
<td>†† BIOL 2323 General Genetics or ††BIOL 4233 Microbial Genetics</td>
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<tbody>
<tr>
<td>3</td>
<td>††CHEM 4843H Biochemistry II</td>
</tr>
<tr>
<td>3</td>
<td>††CHEM 4853 Biomechanical Techniques</td>
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<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
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<td>3</td>
<td>General Elective</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</td>
<td>Semester hours</td>
</tr>
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</table>

| Total Hours | 124 |

† 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.

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 to the University of Arkansas, present all required academic credentials and meet the requirements for admission of international students as found on page 18. English proficiency is a requirement for students in the Atlantis program. This English proficiency requirement may be met by any of the criteria described in the requirements for admission of international students or by personal interview with the transatlantic dual-degree program coordinator or the coordinator’s designee.

A minimum of 40 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 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. Students who pass the CHEM 1103 Freshman Chemistry Proficiency Exam and enroll in CHEM 1123/1121L and receive 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 thesis as part of the transatlantic dual-degree program requirements. This will be fulfilled by successful completion of a minimum of 1 credit hour of
**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, CHEM 3713/3712L, CHEM 3603/3601L, CHEM 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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>3-4</th>
<th>ENGL 1013 Composition I</th>
<th>3-4</th>
<th>MATH 1023 (if required) or MATH 2043 or MATH 2554 (as advised)*</th>
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<tr>
<td>4</td>
<td>CHEM 1213/1211L CHEM for Majors I or CHEM 1103/1101L University CHEM I</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>16-17 Semester Hours</td>
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<tr>
<td>Spring Semester Year 1</td>
<td>3</td>
<td>ENGL 1023 Composition II</td>
<td>3-4</td>
<td>MATH 2043 Survey of Calculus or MATH 2554 Calculus I* (as needed) or Elective</td>
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<tr>
<td>3</td>
<td>CHEM 1223/1221L CHEM II Majors or CHEM 1123/1121L University CHEM II</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>15-16 Semester Hours</td>
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<td>Fall Semester Year 2</td>
<td>4-5</td>
<td>†CHEM 3703/3702L Organic I for Majors or †CHEM 3603/3601L Organic I</td>
<td>4</td>
<td>†PHYS 2023/2021L College Physics I</td>
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<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Elective</td>
<td>17-18 Semester Hours</td>
</tr>
<tr>
<td>Spring Semester Year 2</td>
<td>4-5</td>
<td>†CHEM 3713/3712L Organic II for Majors or †CHEM 3613/3611L Organic II</td>
<td>4</td>
<td>†PHYS 2023/2021L College Physics II</td>
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<td>3</td>
<td>Core from group f (if needed) or Core from areas a, b, c, d or e (as needed)</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Elective</td>
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<td>†CHEM 2262 Analytical Lecture</td>
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<td>†CHEM 3453/3451L Elements of Physical CHEM</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Core from Biological Sciences group f</td>
<td>16 Semester Hours</td>
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<tr>
<td>Fall Semester Year 4</td>
<td>3</td>
<td>†CHEM 3813 Introduction to Biochemistry or †4813H Biochemistry I</td>
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<td>†CHEM 2272 Analytical Lab</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
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<td>Spring Semester Year 4</td>
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<td>†CHEM 4853 Biochemical Techniques</td>
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<thead>
<tr>
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<th>16 Semester Hours</th>
<th>17-18 Semester Hours</th>
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<tbody>
<tr>
<td>15 Semester Hours</td>
<td>17-18 Semester Hours</td>
<td>17-18 Semester Hours</td>
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<td>15 Semester Hours</td>
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<td>15 Semester Hours</td>
<td>15 Semester Hours</td>
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</table>
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 2223/2211L, 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 3813-4213, 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

- **ENGL 1013 Composition I**
- **MATH 2554 Calculus I** or other mathematics course as advised for major*
- **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.**

### Spring Semester Year 1

- **ENGL 1023 Composition II**
- **MATH 2564 Calculus II** or other math as needed or Core from areas a, b, c, d, e, or f (as needed)
- **CHEM 1213/1211L Chem for Majors I or 1103/1101L University Chem I**
- **CHEM 1223/1221L Chem for Majors II or 1123/1121L University Chem II**
- **CHEM 2262/2272 Analytical Chem**
- **CHEM 3813 Introduction to Biochemistry or CHEM 4813H**

### Fall Semester Year 2

- **CHEM 3504-3514-3512L Physical Chem I or CHEM Elective 3000-4000 Level and Core from areas a, b, c, d, e, or f (as needed)**
- **CHEM 3514/3512L Physical Chem II or CHEM Elective 3000-4000 Level and Core from areas a, b, c, d, e, or f (as needed)**
- **CHEM 3703/3702L Organic Chem I for Majors**
- **CHEM 4843H or Intermediate Inorganic Chem or 4403 Environmental Chem**
- **CHEM 4853 Biochemical Techniques**
- **CHEM 4123 Advanced Inorganic Chem I**

### Spring Semester Year 2

- **CHEM 5813-5843 or CHEM 3813-4213/4211L or CHEM 3813-4123 or CHEM 3813-4213, 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.**

### Fall Semester Year 3

- **CHEM 4843H or Intermediate Inorganic Chem or 4403 Environmental Chem**
- **CHEM 4853 Biochemical Techniques**
- **CHEM 4123 Advanced Inorganic Chem I**
- **CHEM 4813H**
- **CHEM 4843H or Intermediate Inorganic Chem or 4403 Environmental Chem**
- **CHEM 4853 Biochemical Techniques**
- **CHEM 4123 Advanced Inorganic Chem I**

### Spring Semester Year 3

- **CHEM 4813H**
- **CHEM 4843H or Intermediate Inorganic Chem or 4403 Environmental Chem**
- **CHEM 4853 Biochemical Techniques**
- **CHEM 4123 Advanced Inorganic Chem I**
- **CHEM 4813H**
- **CHEM 4843H or Intermediate Inorganic Chem or 4403 Environmental Chem**
- **CHEM 4853 Biochemical Techniques**
- **CHEM 4123 Advanced Inorganic Chem I**

## 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 encouraged 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 students 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 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. SEE PAGE 326 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 4043, HIST 4053, PHIL 4003, PHIL 4013, PHIL 4023, PLSC 3953, WLT 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>
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<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
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</table>
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 4003H).

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 330 FOR CLASSICAL STUDIES (CLST) COURSES

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 Allen, Frenzt, Scheide, Smith (S.), Webb, Wicks
• Professors Emeriti Rea, Rogers
• Associate Professors Amason, Brady, Rosteck, Warren
• Associate Professor Emeritus Bailey
• Assistant Professor Corrigan, Schulte, Walker
• Research Assistant Professor Smith (L.)
• Assistant Professor Emeritus Galloway
• Adjunct Assistant Professor Cowling

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 studies 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. A minimum grade of “C” is required in COMM 2333, COMM 3343, COMM 3443, and COMM 3673. 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 achieving a grade of “C” or better submitted for an upper-division communication class and approved by the chair 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.

### Fall Semester Year 1
- 3 ENGL 1013 Composition I
- 3 MATH 1203 (if required) or †MATH 2043, 2053, 2183 or 2554
- 3 COMM 1313 Fundamentals of Communication
- 3 Core from areas b, c, d or e (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 15 Semester Hours

### Spring Semester Year 1
- 3 ENGL 1023 Composition II
- 3-4 †MATH 2033, 2043, 2053, 2183 or 2554 or Core from areas b, c, d or e (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 4 Core from area f (as needed)
- 3 Core from area f (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 16-17 Semester Hours

### Fall Semester Year 2
- 3 COMM 2333 Comm Research or any 2000 level COMM class
- 3 Core from area f (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 16 Semester Hours

### Spring Semester Year 2
- 3 †Core from area g (if required) or †Advanced Level Elective
- 3 COMM 2333 Comm Research or any 2000, ††3000 or ††4000 level class
- 3 Core from areas b, c, d or e (as needed)
- 4 Core from area f (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 16-17 Semester Hours

### Fall Semester Year 3
- 3 ††COMM Group A (below) or any ††3000 or ††4000 level class
- 3 ††COMM Group A (below) or any ††3000 or ††4000 level class
- ††Core from area g (if required) or ††Advanced Level Elective
- 3 Core from areas b, c, d or e (as needed)
- 3 Core from areas b, c, d or e (as needed)
- 15 Semester Hours

### Spring Semester Year 3
- 3 ††COMM Group A (below, as needed) or any ††3000 or ††4000 level class
- 3 ††COMM Group A (below, as needed) or any ††3000 or ††4000 level class
- ††Core from area g (if required) or ††Advanced Level Elective
- 3 Core from areas b, c, d or e (as needed)
- 3 Core from areas b, c, d or e (as needed)
- General Elective
- 15 Semester Hours

### Fall Semester Year 4
- 3 ††COMM Group A (below, as needed) or any ††3000 or ††4000 level class
- 3 ††COMM Group A (below, as needed) or any ††3000 or ††4000 level class
- ††COMM 3000 or 4000 level class
- 3 Core from areas b, c, d or e (as needed)
- 4 General Electives
- 16 Semester Hours

### Spring Semester Year 4
- 3 ††COMM 3000 or 4000 level class
- 3 ††COMM 3000 or 4000 level class
### Computer Science B.A. Eight-Semester Degree Program

Students wishing to follow the eight-semster 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.

#### Full Semester Year 1

<table>
<thead>
<tr>
<th>3</th>
<th>ENGL 1013 Composition I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MATH 2554</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>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>16</td>
<td>Semester Hours</td>
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</table>

#### Spring Semester Year 1

<table>
<thead>
<tr>
<th>3</th>
<th>ENGL 1023 Composition II</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>4</td>
<td>CSCE 2003/2001L Programming Foundations I and Lab</td>
</tr>
<tr>
<td>3</td>
<td>Core from area f (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>
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<td>17</td>
<td>Semester Hours</td>
</tr>
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</table>

#### Full Semester Year 2

<table>
<thead>
<tr>
<th>4</th>
<th>CSCE 2013/2011L Programming Foundations II and Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>MATH 2103 Discrete Mathematics</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</td>
<td>Semester Hours</td>
</tr>
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</table>

#### Spring Semester Year 2

<table>
<thead>
<tr>
<th>3</th>
<th>CSCE 3143 Data Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>MATH 3103 Combinatorial and Discrete Mathematics</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>15</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>

#### Fall Semester Year 3

<table>
<thead>
<tr>
<th>3</th>
<th>CSCE 3313 Algorithms</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CSCE 3000-4000 Level 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>4</td>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>16</td>
<td>Semester Hours</td>
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#### Spring Semester Year 3

<table>
<thead>
<tr>
<th>3</th>
<th>CSCE 3000-4000 Level Elective</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>CSCE 3000-4000 Level Elective</td>
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<tr>
<td>3</td>
<td>Core from area g (if still needed) or Advanced Level Elective</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>4</td>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td>16</td>
<td>Semester Hours</td>
</tr>
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#### Fall Semester Year 4

<table>
<thead>
<tr>
<th>3</th>
<th>CSCE 4313 Programming Languages</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>CSCE 3000-4000 Level 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>1</td>
<td>General Elective</td>
</tr>
<tr>
<td>16</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>

#### Spring Semester Year 4

<table>
<thead>
<tr>
<th>3</th>
<th>CSCE 3000-4000 Level Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Advanced Level 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>General Elective</td>
</tr>
</tbody>
</table>

| 3 | General Elective |
| 15 | Semester Hours |
| 124 | Total Hours |

† 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 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 Brustar, Gibbs, Gross, Herzberg, Martin, Riha*  
*Associate Professor 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
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.

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.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>16-17 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ENGL 1013 Composition I</td>
</tr>
<tr>
<td>1 DRAM 1223 Intro to Dramatic Art</td>
</tr>
<tr>
<td>3-4 DRAM 1323/1321L Stage Tech I: Costumes and Makeup/Lab or DRAM 1683 Acting I</td>
</tr>
<tr>
<td>3 MATH 2043 (If required) or MATH 2053, 2183 or 2054</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>15-16 Semester Hours</td>
</tr>
</tbody>
</table>

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>15-16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4 DRAM 1313/1311L Stage Tech II: Scenery &amp; Lighting/Lab or DRAM 1683 Acting I (as needed)</td>
</tr>
<tr>
<td>3 ††DRAM group A, B, C or D (as needed)</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>15-16 Semester Hours</td>
</tr>
</tbody>
</table>

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>15-16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4 DRAM 1323/1321L Stage Tech II: Scenery &amp; Lighting/Lab or DRAM 1683 Acting I (as needed)</td>
</tr>
<tr>
<td>3 ††DRAM group A, B, C or D (as needed)</td>
</tr>
<tr>
<td>3 †Core from area g (if still needed) or †Advanced Level Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>3 General Elective (or DRAM 2683 Acting II if planning to take DRAM 3653 Directing I)</td>
</tr>
</tbody>
</table>

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>15-16 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††DRAM 2313 Intro, to Theatre Design (if needed) or †DRAM 4233 History of the Theatre or †Advanced Level Elective</td>
</tr>
<tr>
<td>3 ††DRAM group A, B, C or D (as needed)</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>4 Core from group I (as needed)</td>
</tr>
<tr>
<td>1 ††DRAM 3001 Theatre Practicum (as needed)</td>
</tr>
</tbody>
</table>

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>16-17 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††DRAM 4333 History of the Theatre or †Advanced Level Elective</td>
</tr>
<tr>
<td>3 ††DRAM group A, B, C or D (as needed)</td>
</tr>
<tr>
<td>3 †Core from area g (if still needed) or †Advanced Level Elective</td>
</tr>
<tr>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>4 Core from group I (as needed)</td>
</tr>
<tr>
<td>1 ††DRAM 3001 Theatre Practicum (as needed)</td>
</tr>
</tbody>
</table>

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>16-17 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ††DRAM 4233 History of the Theatre (if needed) or ††DRAM group A, B, C or D (as needed)</td>
</tr>
</tbody>
</table>

### Drama Eight-Semester Degree Program

- **Group A:** 3 hours to be chosen from:
  - DRAM 3653 Directing I (pre-req: DRAM 1223, 1683, 1313/1311 and 1323/1321)
  - 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.

- **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.

---

University of Arkansas, Fayetteville
ECONOMICS (ECON)

Gary D. Ferrier
Chair of the Department
402 Business Building
479-577-ECON (3266)
http://waltoncollege.uark.edu/ECON/default.asp
- Margaret Gerig and R.S. Martin Jr. Chair in Business Professor Farmer
- Lewis E. Epley Jr. Professor in Economics Ferrier
- University Professors Britton, Gay
- Professors Curington, Dixon, Horowitz, Ziegler
- Associate Professors Deck, Kali, Mendez, Reyes
- Assistant Professor Gu
- Clinical Associate Professor Stapp
- Instructor Johnson

Requirements for a Major in Economics: 30 semester hours, including ECON 2143 or ECON 2013 and ECON 2023, ECON 3033, ECON 3133, ECON 4743, and ECON 4033.

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-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.

Spring Semester Year 1

3 ENGL 1013 Composition I
3-4 MATH 2053 Finite Math or MATH 2554 Calculus I
3 Core from areas a, b, c, d, 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)
1 †‡DRAM 3001 Theatre Practicum (as needed)*
15-16 Semester Hours

Spring Semester Year 2

3 †‡DRAM 4333 History of the Theatre (if needed) or †‡DRAM group A, B, C, or D (as needed)
3 †‡DRAM group A, B, C or D (if needed) or General 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
1 †‡DRAM 3001 Theatre Practicum (as needed)*
15-16 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 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- or 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 337 FOR DRAMA (DRAM) COURSES SEE PAGE 337 FOR DANCE (DANC) COURSES
### 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, and 12 hours of international economics and business electives that may be selected from ECON 3843, ECON 3853, ECON 410V, 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, Middle Eastern and Islamic 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. These courses fulfill the Fulbright College mathematics requirement.

4. 9 hours of business/stat courses to include WCOB 1033 or STAT 2303, WCOB 2033 or WCOB 2043 (students must also complete WCOB 1120 or equivalent and WCOB 1012 as a prerequisite to any of the 2000-level WCOB courses).

5. 6 hours of a foreign language at the intermediate level, or above, and

6. 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 with Emphasis in International Economics and Business

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.

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2053 Finite Math or 2554 Calculus I</td>
<td>3-4</td>
</tr>
<tr>
<td>Foreign language course numbered 1013 or 1013</td>
<td>2</td>
</tr>
<tr>
<td>WCOB 1012 Legal Environment of Business</td>
<td>0</td>
</tr>
<tr>
<td>WCOB 1120 Computer Competency Requirement</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td>1-15</td>
</tr>
</tbody>
</table>

### Fall Semester Year 1

<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>ECON 2023 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Foreign language course numbered 1013 or 2013</td>
<td>3-4</td>
</tr>
<tr>
<td>WCOB 1023 Business Foundations</td>
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<tr>
<td>WCOB 1033 Business Statistics or STAT 2303 Principles of Statistics</td>
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### Spring Semester Year 2

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<tr>
<td>ECON 3033 Microeconomic Theory</td>
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<tr>
<td>Foreign language course numbered 2013 or 2013</td>
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</tr>
<tr>
<td>Upper Division Foreign Language</td>
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<tr>
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### Fall Semester Year 2

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<td>Upper Division Foreign Language</td>
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<tr>
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<tr>
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### Spring Semester Year 3

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<tr>
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<tr>
<td>International Economics and Business Elective</td>
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<tr>
<td>Upper Division Foreign Language Core from areas a, b, d or e</td>
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<tr>
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### Fall Semester Year 3

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<tr>
<td>ECON 4643 International Monetary Policy</td>
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### Spring Semester Year 4

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<tr>
<td>International Economics and Business Elective</td>
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<td>Upper Level Area Studies from ARSC</td>
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<tr>
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### Fall Semester Year 4

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<tr>
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<tbody>
<tr>
<td>ECON 3843, ECON 3853, ECON 410V, 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,</td>
<td>15-16</td>
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### Spring Semester Year 4

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<tr>
<td>Core from area 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.</td>
<td>18-20</td>
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### Fall Semester Year 4

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<td>Upper Division Foreign Language</td>
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<tr>
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### Spring Semester Year 4

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<tr>
<td>Core from area 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.</td>
<td>18-20</td>
</tr>
</tbody>
</table>
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 section 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 328 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/
English@cavern.uark.edu

• Distinguished Professor Emeritus Guilds
• University Professors Emeriti Harrison, Williams
• Professors Adams, Booker, Burris, Candido, Cochran, DuVal, Giles, Hays, Heffernan, Joliffe, Montgomery, Quinn, Stephens, Talburt
• Professors Emeriti Bennett, Bolsterli, Hart, Rudolph
• Associate Professors Brock, Gilchrist, Kahf, Marren, McCombs, Slattery

• Associate Professors Emeriti MacRae, Park
• Assistant Professors Bernhard Jackson, Hinrichsen, Tucker
• Adjunct Assistant Professor Gertz
• Instructors Gamble, Gray, Madison, Pappas, 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 2003). 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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<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3</td>
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<tr>
<td>ENGL 1013 Composition I</td>
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<td>MATH 1203 (if required) or MATH 2043, 2053, 2183, or 2554</td>
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<td>15-16 Semester Hours</td>
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<td>ENGL 1023 Composition II</td>
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<td>Core from area f (as needed)</td>
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<td>16-17 Semester Hours</td>
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<td>ENGL from Group A</td>
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<tr>
<td>3</td>
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<tr>
<td>Core from area g (if needed) or Advanced Level Elective</td>
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<td>Group A: Twelve hours chosen from the following:</td>
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<tr>
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<tr>
<td>ENGL 2303 Survey of English Literature from Beginning through 17th Century (required)</td>
</tr>
<tr>
<td>ENGL 2333 Survey of American Literature, or ENGL 3723 Survey of American Literature from Beginning through 17th Century (required)</td>
</tr>
</tbody>
</table>
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 from either ENGL 2313 Survey of English Literature from 1700 ñ 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 2355 Survey of Modern American Literature
- 3 hours from 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 4303 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, and
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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<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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<td>3-4 MATH 1203 (if required) or †MATH 2043, 2053, 2183, or 2554</td>
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<tr>
<td>3 JOUR 1023 Media and Society or JOUR 1033 Fundamentals of Journalism</td>
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<td>4 Core from area f (as needed)</td>
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</table>
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), Ricker (German), Tucker (Russian), Waliński (political science),
• Associate Professors Adler (philosophy), Arenberg (French), Bailey (communication), Christiansen (French), Condray (German), Davidson (geography), Jacobs (art), Minar (philosophy), Scheide (communication), Senor (philosophy), Sonn (history)
• Assistant Professors Brugi (history), Comfort (French), Grob-Fitzgibbon (history), Roziel (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 approval of the director of the area studies program and their major adviser. In addition, the following conditions apply:

1. A maximum of 12 credits may be submitted from any one department.
2. A maximum of six hours may be submitted from courses taken in the student's major department.

### Fall Semester Year 2

<table>
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<tr>
<th>Hours</th>
<th>Requirement</th>
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### Spring Semester Year 3

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<td>3 ††ENGL/WLIT 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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### Fall Semester Year 4

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<td>3 ††ENGL/WLIT Upper Level Elective</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>1 General Elective</td>
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<tr>
<td>16 Total Hours</td>
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### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Hours</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>3 ††ENGL/WLIT Upper Level Elective</td>
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</tr>
<tr>
<td>3 ††ENGL/WLIT Upper Level Elective</td>
<td></td>
</tr>
<tr>
<td>3 JOUR elective</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>15 Semester Hours</td>
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</tr>
<tr>
<td>124 Total Hours</td>
<td></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.

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 Fulbright 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 343 FOR ENGLISH (ENGL) COURSES
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 3553 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**
- PLS 4353 Western European Politics
- PLS 4363 Modern European Political Thought
- PLS 4543 Government and Politics of Eastern Europe
- PLS 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**

See World Languages, Literatures, and Cultures on page 196.

**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’Alliesa, 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 4133 The Family
Hist 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)
Ralph Davis
Chair of the Department
113 Ozark Hall
479-575-3355
http://geosciences.uark.edu
geo@uark.edu
• Distinguished Professor Stable
• Professors Brahama, Davis, Dixon, Guccione, Hehr, Konig, Manger, Mattioli, Paradise, Zachry
• Professors Emeritus Cleaveland, Macdonald, Steele
• Associate Professors Bos, Davidson, Graff
• Assistant Professors Cothren, Hausmann, Teng, Tallis
• Research Associate Professor Hays
• Adjunct Professors Jansma, Mock, Pailllet
• Adjunct Assistant Professors Hubney, Bragg
• Adjunct Instructor Pollock

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>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>basic courses</td>
<td>8</td>
</tr>
<tr>
<td>biology</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry or Physics</td>
<td>8</td>
</tr>
<tr>
<td>Geol 1113/1111L</td>
<td>4</td>
</tr>
<tr>
<td>Geol 1133/1131L</td>
<td>4</td>
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</tbody>
</table>

Math (2043, 2053, 2183 or 2554) 3-4

Advanced Courses

ASTR 2003, ASTR 2001L 4

Geog 3003, Geog 3023, Geog 4353 or Geog 4363 9

Geol 2313, Geol 3413, Geol 4033 and Geol 4924

At least 6 additional hours, at the 3000 level or above, in either geography or geology: 13

Total Hours (depending on choice of Math by student) 59-60

In addition, all earth science majors must satisfy the senior-level writing requirement as specified by the geosciences department.

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.

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.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>3 ENGL 1013 Composition I</td>
<td>3-4 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td></td>
<td>4 Geol 1133/1133L Environmental Geology</td>
<td>4 Geol 1133/1133L Environmental Geology</td>
</tr>
<tr>
<td></td>
<td>3 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>3 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>
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<tr>
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<td>16-17 total hours</td>
<td>16-17 total hours</td>
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<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>3 GEOF 2313 Minerals and Rocks</td>
<td>3-4 GEOF 2313 Sedimentary Rocks &amp; Fossils (if needed) or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>4 CHEM or PHYS Course (as needed)</td>
<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>
<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>
<td>3 Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td></td>
<td>16 total hours</td>
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<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>Year 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>3 GEOF 3413 Sedimentary Rocks &amp; Fossils</td>
<td>3 GEOF 3413 Sedimentary Rocks &amp; Fossils</td>
</tr>
<tr>
<td></td>
<td>3 Core from area f (if needed) or Advanced Level Elective</td>
<td>4 ASTR 2003/2001L</td>
</tr>
<tr>
<td></td>
<td>4 CHEM or PHYS Course (as needed)</td>
<td>4 CHEM or PHYS Course (as needed)</td>
</tr>
<tr>
<td></td>
<td>3 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>
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<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>4 BIOL Course (as needed)</td>
<td>3 GEOF 3023 Cartography</td>
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<tr>
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<td>3 Core from areas a, b, c, d or e (as needed)</td>
<td>3 Core from area f (if still needed) or Advanced Level Elective</td>
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<tr>
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<td>3 Core from area f (if still needed) or Advanced Level Elective</td>
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<td></td>
<td>16 total hours</td>
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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, GEOG 1131L, and GEOG 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 course GEOG 2003 World Regional Geography counts as three hours toward University Core area e.

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, GEOG 1131L, and GEOG 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 course GEOG 2003 World Regional Geography counts as three hours toward University Core area e.

Core area. The course GEOG 2003 World Regional Geography counts as three hours toward University Core area e.

Fall Semester Year 1
1. GEOG 1123 Human Geography
2. 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
1 HGEOS 3000 level or above Elective
2 Core from area g, 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)
16 Semester Hours

Fall Semester Year 2
1 GEOG 2003 World Regional Geography
2 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
1 HGEOS 3023 Introduction to Cartography
2 HGEOS 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)
3 Core from areas a, b, c, d or e (as needed)
16 Semester Hours

Spring Semester Year 3
1 HGEOS 3000 level or above Elective
2 HGEOS 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)
3 Core from areas a, b, c, d or e (as needed)
15 Semester Hours

Fall Semester Year 3
1 HGEOS 3000 level or above Elective
2 HGEOS 3000 level or above Elective
3 Core from area g, 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

Spring Semester Year 4
1 HGERP 3000 level or above Elective
2 HGERP 3000 level or above Elective
3 HGERP 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)
15 Semester Hours

Core area. The course GEOG 2003 World Regional Geography counts as three hours toward University Core area e.

Fall Semester Year 4
1 HGERP 3000 level or above Elective
2 HGERP 3000 level or above Elective
3 HGERP 3000 level or above Elective
3 Core from area g, if needed or Advanced Level Elective
3 Core from areas a, b, c, d or e (as needed)
15 Semester Hours

Spring Semester Year 4
1 HGERP 3000 level or above Elective
2 HGERP 3000 level or above Elective
3 HGERP 3000 level or above Elective
3 Core from area g, if needed or Advanced Level Elective
3 Core from areas a, b, c, d or e (as needed)
15 Semester Hours

Spring Semester Year 4
1 HGERP 3000 level or above Elective
2 HGERP 3000 level or above Elective
3 HGERP 3000 level or above Elective
3 Core from area g, if needed or Advanced Level Elective
3 Core from areas a, b, c, d or e (as needed)
15 Semester Hours

Fall Semester Year 4
1 HGERP 3000 level or above Elective
2 HGERP 3000 level or above Elective
3 HGERP 3000 level or above Elective
3 Core from area g, if needed or Advanced Level Elective
3 Core from areas a, b, c, d or e (as needed)
15 Semester Hours

Student 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
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:
- ARCH 1003, or both ARCH 1212 and 1222, or equivalent class in architecture
- GEOG 4063, or LARC 3413, or equivalent class in urban studies
- ANTH 4443, or equivalent class in cultural resources
- GEOL 1133, or equivalent class in the human and physical aspects of the Earth
- GEOG 3025 or equivalent class in spatial representation and visualization
- FGEOG 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):
- GEOG 3023, GEOG 4413, and GEOG 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 4583 (same as ANTH 4563), 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 348 for Geography (GEOG) Courses

Geology (GEOG)

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 GEOG 1113/1111L (or GEOG 3002), GEOG 1133/1131L, GEOL 2313, GEOG 3383, GEOG 3413, GEOG 3514, GEOG 4223, GEOG 4063 or GEOG 4433, GEOG 4863, GEOG 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.

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.

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.
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 348 FOR GEOLOGY (GEO) COURSES

HISTORY (HIST)

Lynda Coon
Chair of the Department
416 Old Main
479-575-3001
http://history.uark.edu
history@uark.edu

- Distinguished Professors West, Woods
- Alumni Distinguished Professor Emeritus Gateswood
- Professors Finlay, Gordon, Markham, McMath, Sutherland, Whyne, Wolpert
- Professors Emeriti Brown, Bukey, Chase, Engels, Kennedy, Vizzier
- Associate Professors Brogi, Coon, Robinson, Schweiger, Sloan (K.), Sonn, Starks, Williams
- Associate Professors Emeriti Edwards, Sloan (D.), Tucker
- Assistant Professors Arrington, Cai, Grob-Fitzgibbon, Pierce, White

Requirements for a Major in History: 36 semester hours to include:
One of HIST 1003 or HIST 1113 or HIST 1113H
One of HIST 1013 or HIST 1123 or HIST 1123H (4-year honors scholars must take 1113H and 1123H)
HIST 2003
HIST 2013
HIST 4893
21 additional 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 3553, 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
Higher degree distinctions are recommended only in truly exceptional cases and by the award of the distinction "History Scholar in an honors thesis. Successful completion of the program will be recognized during the senior year, the honors candidate will complete the program by writing an honors project or senior thesis may also fulfill this requirement. Writing Requirement: To fulfill the Fulbright College writing requirement, each history major will submit, prior to graduation, a substantial research or analytical paper, with a grade of “A” or “B” from an upper-division history course (3000, 4000, 5000 level) to his or her departmental adviser. The required senior capstone seminar, HIST 4893, is designed to give history majors the opportunity and guidance to produce a paper to meet the Fulbright College requirement, but students may also submit a paper from another course. Satisfactory completion of an honors project or senior thesis may also fulfill this requirement.

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 4893, Honors History Thesis, Fall or Spring semester, senior year). During the senior year, the honors candidate will complete the program by writing an 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 who elect 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 | 3 | ENGL 1013 Composition I |
| | 3 | MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554 |
| | 3 | HIST 2003 History of the American People to 1877 or HIST 1103 Institutions and Ideas of Western Civilization I or HIST 1113 Institutions and Ideas of World Civilizations I |
| | 3 | Core from areas a, c, d or e (as needed) |
| 15 Semester Hours | |

| Spring Semester Year 1 | 3 | ENGL 1023 Composition II |
| | 3 | MATH 2043, 2053, 2183, 2554 or Core from areas a, c, d or e (as needed) |
| | 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 |
| | 3 | Core from areas a, c, d or e (as needed) |
| 15 Semester Hours | |

| Fall Semester Year 2 | 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) |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 4 | Core from area f (as needed) |
| 16 Semester Hours | |

| Spring Semester Year 2 | 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) |
| | 3 | †Core from area g (if required) or †Advanced Level Elective |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 4 | General Electives |
| 15 Semester Hours | |

| Fall Semester Year 3 | 3 | †HIST 3000 or 4000 level (from U.S., European or Other as needed) |
| | 3 | †HIST 3000 or 4000 level (from U.S., European or Other as needed) |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 4 | General Electives |
| 16 Semester Hours | |

| Spring Semester Year 3 | 3 | †HIST 3000 or 4000 level (from U.S., European or Other as needed) 1 |
| | 3 | †HIST 3000 or 4000 level (from U.S., European or Other as needed) 1 |
| | 3 | †Core from area g (if still needed) or †Advanced Level Elective |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 4 | Core from area f (as needed) |
| 16 Semester Hours | |

| Fall Semester Year 4 | 3 | †HIST 4000 level (from U.S., European or Other as needed) |
| | 3 | †HIST 4000 level (from U.S., European or Other as needed) |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 3 | †Advanced Level Elective |
| | 3 | HIST 4893 Senior Capstone Seminar |
| 15 Semester Hours | |

| Spring Semester Year 4 | 3 | †HIST 4000 level (from U.S., European or Other as needed) |
| | 3 | †HIST 4000 level (from U.S., European or Other as needed) |
| | 3 | †Advanced Level Elective |
| | 3 | Core from areas a, c, d or e (as needed) |
| | 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 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, 1113 and 1123.

History (B.A.) Social Studies Teacher Licensure Requirements: Please refer to the Secondary Education Requirements for Fulbright College Students on page 118.

Students who desire 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://history.uark.edu/index.php/ugrd_scholarships.

**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 358 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</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIIR 2813 Intro. to International Relations (same as PLSC 2813)</td>
<td>3</td>
</tr>
</tbody>
</table>

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.)

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 & Finance From the following (depending on ECON option selected): 6-9

(Courses must be selected from at least two departments.)

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  
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**

Three hours of an Area Studies Colloquium (AIST, EUST, LAST, MEST, or RST 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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3-4 MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3 PLSC 2003 American Nat’l. Government (meets requirement in core area b)</td>
</tr>
<tr>
<td>3 Foreign Language (as needed; see core area c)</td>
</tr>
</tbody>
</table>
### 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
- ANTH 4533 Middle East Culture
- ANTH 4583 Peoples and Cultures of Sub-Saharan Africa

### Approved Courses for Minor in Economics for International Relations majors:

- ECON 2013 Principles of Macroeconomics
- or ECON 2143 Basic Economics
- ECON 2023 Principles of Microeconomics
- 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 Geography 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 History for International Relations majors:

- HIST 1113 Institutions and Ideas of World Civilization
- HIST 1113H Honors World Civilization
- HIST 1123 Institutions and Ideas of World Civilization
- HIST 1123H Honors World Civilization
- HIST 3003 History of Christianity
- HIST 3033 Islamic Civilization
- HIST 3043 History of the Modern Middle East
- 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 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 4343 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 Ingenthron, Reed
• Associate Professors Jordan, Miller, Stockdell, Watkins
• Associate Professor Emerita Montgomery
• 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 and another choice be JOUR 4883/4880L.

**Advertising/Public Relations:** JOUR 3723, JOUR 3743, JOUR 4143, JOUR 4423, and JOUR 4453 are required, plus any three 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**

**Fall Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1203 (If required) or †MATH 2043, 2053, 2183 or 2554</td>
<td>3-4</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>15-16 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

**Spring Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>†MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)</td>
<td>3-4</td>
</tr>
<tr>
<td>JOUR 1023 Media and Society or JOUR 1033 Fundamentals of Journalism (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
<td>4</td>
</tr>
<tr>
<td>ECON 2143 Basic Economics or Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>16-17 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

**Fall Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013 Composition I (if needed) or Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 1023 Media and Society or JOUR 1033 Fundamentals of Journalism (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

**Spring Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ENGL 2013 (completes core group g) if needed or †Advanced Level Elective</td>
<td>3</td>
</tr>
<tr>
<td>†MKTG 3433 Introduction to Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
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<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

**Fall Semester Year 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>†JOUR 3723 Advertising Principles or JOUR †JOUR 3743 Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td>†MKTG 3553 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>4</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
<td>4</td>
</tr>
<tr>
<td>†Upper-level elective in Fullbright College</td>
<td>3</td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

**Spring Semester Year 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>††JOUR 3723 Advertising Principles (if not taken earlier) or ††JOUR 3743 Public Relations Principles</td>
<td>3</td>
</tr>
<tr>
<td>†ENGL 2013 (completes core group g) if not taken earlier or †Advanced Level Elective</td>
<td>3</td>
</tr>
<tr>
<td>†JOUR 3633 Media Law</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
<td>4</td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

**Fall Semester Year 4**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR Elective</td>
<td>3</td>
</tr>
<tr>
<td>†JOUR 4143 Public Relations Writing (or in Spring Semester 4)</td>
<td>3</td>
</tr>
<tr>
<td>†JOUR 4423 Creative Strategy &amp; Execution (or in Spring Semester 4)</td>
<td>3</td>
</tr>
<tr>
<td>†JOUR 4453 Media Planning &amp; Strategy (or in Summer Semester 4)</td>
<td>3</td>
</tr>
<tr>
<td>†Advanced Level Elective</td>
<td>3</td>
</tr>
<tr>
<td>1 General Elective</td>
<td>1</td>
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<tr>
<td>16 Semester Hours</td>
<td></td>
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</table>

**Spring Semester Year 4**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>JOUR Elective</td>
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</tr>
<tr>
<td>JOUR Elective</td>
<td>3</td>
</tr>
<tr>
<td>†Advanced Level Elective</td>
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</tr>
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<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (if needed)</td>
<td>3</td>
</tr>
<tr>
<td>†Upper-level elective in Fullbright College (if needed) or General Elective</td>
<td>3</td>
</tr>
<tr>
<td>124 Total Hours</td>
<td></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.

**Broadcast Sequence**

**Fall Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 1013 Composition I</td>
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</tr>
<tr>
<td>MATH 1203 (If required) or †MATH 2043, 2053, 2183 or 2554</td>
<td>3-4</td>
</tr>
<tr>
<td>JOUR 1023 Media and Society</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>15-16 Semester Hours</td>
<td></td>
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</tbody>
</table>

**J. William Fulbright College of Arts and Sciences**
### Spring Semester Year 1
- **ENGL 1023 Composition II**
- **MATH 2043, 2053, 2183 or Core from areas a, b, c, d or e (as needed)**
- JOUR 1033 Fundamentals of Journalism
- Core from area f (as needed)
- Core from areas a, b, c, d or e (as needed)
- **16 Semester Hours**

### Fall Semester Year 2
- **†JOUR 2032/2031L Broadcast News Reporting I / Lab**
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- General Elective
- **15 Semester Hours**

### Spring Semester Year 2
- **‡‡ENGL 2013 Essay Writing (completes core area g) or †Advanced Level Elective**
- ‡‡JOUR 3072/3071L Broadcast News Reporting II/Lab
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- General Elective
- **15 Semester Hours**

### Fall Semester Year 3
- ‡‡JOUR 4863 Television News Reporting I/Lab
- ‡‡JOUR 3633 Media Law
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- Core from area f (as needed)
- **16 Semester Hours**

### Spring Semester Year 3
- ‡‡JOUR 4873 Television News Reporting II/Lab
- ‡‡JOUR upper level elective
- Core from area f (as needed)
- Core from area f (as needed)
- **16 Semester Hours**

### Fall Semester Year 4
- ‡‡JOUR upper level elective
- ‡‡JOUR upper level elective
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- Core from area f (as needed)
- **16 Semester Hours**

### Spring Semester Year 4
- ‡‡JOUR upper level elective
- ‡‡JOUR 498V Journalism Writing Requirement or Elective
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- ‡Advanced Level 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.

### News/Editorial Sequence

#### Fall Semester Year 1
- **ENGL 1013 Composition I**
- MATH 1203 (If required) or †MATH 2043, 2053, 2183 or 2554
- JOUR 1023 Media and Society
- Core from areas a, b, c, d or e (as needed)
- **3-4 Total Hours**

### Spring Semester Year 1
- **ENGL 1023 Composition II**
- **MATH 2043, 2053, 2183 or Core from areas a, b, c, d or e (as needed)**
- JOUR 1033 Fundamentals of Journalism
- Core from area f (as needed)
- Core from areas a, b, c, d or e (as needed)
- **16 Semester Hours**

### Fall Semester Year 2
- **†JOUR 2013 News Reporting I**
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- General Elective
- **15 Semester Hours**

### Spring Semester Year 2
- **‡‡ENGL 2013 Essay Writing (completes core area g) or †Advanced Level Elective**
- ‡‡JOUR 3633 Media Law
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- Core from area f (as needed)
- **16 Semester Hours**

### Fall Semester Year 3
- ‡‡JOUR 3123 Feature Writing
- ‡‡JOUR 4553 Magazine Editing and Production I
- Core from area f (as needed)
- Core from area f (as needed)
- **16 Semester Hours**

### Spring Semester Year 3
- ‡‡JOUR upper level elective
- ‡‡JOUR upper level elective
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- ‡Advanced Level Elective
- **15 Semester Hours**

### Fall Semester Year 4
- ‡‡JOUR upper level elective
- ‡‡JOUR upper level elective
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- Core from area f (as needed)
- **16 Semester Hours**

### Spring Semester Year 4
- ‡‡JOUR upper level elective
- ‡‡JOUR 498V Journalism Writing Requirement or Elective
- Core from areas a, b, c, d or e (as needed)
- Core from areas a, b, c, d or e (as needed)
- ‡Advanced Level 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 Departmental Honors in Journalism:
The Journalism Honors Program gives upper-division undergraduates a chance to pursue journalistic research in the context of other academic disciplines. Honors candidates carry out independent study and research under the guidance of the journalism
faculty and participate in honors classes in journalism and at least one other discipline. Outstanding student achievement will be recognized by the award of distinction "Journalism Scholar Cum Laude" at graduation. Higher degree distinctions are recommended only in cases of exceptional achievement and are based on the candidate’s total honors studies program. To be considered for such distinctions, students must earn a minimum cumulative 3.50 grade-point average in journalism.

Journalism Departmental Honors students must satisfy the general Fulbright College honors requirements as stated elsewhere in this catalog. In addition, for journalism departmental honors, they must complete a minimum of 12 hours in honors credits, with thesis credit determined by departmental rules. These requirements are specified as follows:

Journalism Four-Year and Departmental Honors students must:
1. enter the program no later than the first semester of their junior year, and register for thesis beginning with the first semester of the junior year.
2. complete at least one journalism honors colloquium.
3. complete the journalism honors core research course JOUR 5043.
4. complete an approved honors colloquium in a second discipline.
5. complete and orally defend an honors thesis based on honors courses of study, and
6. earn a cumulative 3.50 grade-point average in journalism courses.

Four-Year Honors students who would like to major in journalism must meet all requirements for Journalism Department Honors.

More specific information on the Journalism Departmental Honors program, including the requirements for Four-Year Honors students, is available from the Journalism Department Honors adviser.

**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 3013, JOUR 3023, JOUR 4043, and JOUR 4863, and JOUR 4873. 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 1023, 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 15 additional 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 3223
- PLSC 3233
- PLSC 3243
- PLSC 3253
- PLSC 3603
- PLSC 3853
- PLSC 3923H
- PLSC 3913
- PLSC 3933
- PLSC 394V
- PLSC 3973
- PLSC 3983
- PLSC 399VH
- PLSC 4193
- PLSC 4203
- PLSC 4213
- 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

**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.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 1013</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>MATH 1203</td>
<td>(if required) or †MATH 2043, 2053, 2183 or 2554</td>
<td>3-4</td>
</tr>
<tr>
<td>JOUR 1023</td>
<td>Media and Society or JOUR 1035 Fundamentals of Journalism</td>
<td>3</td>
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<tr>
<td>JOUR 4043</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
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<tr>
<td>JOUR 4863</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 4873</td>
<td>Core from area f (as needed)</td>
<td>1</td>
</tr>
<tr>
<td>Total Hours</td>
<td>15-16</td>
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### Spring Semester Year 1

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>PLSC 2013</td>
<td>Introduction to Comparative Politics (meets a requirement for core area e)</td>
<td>3</td>
</tr>
<tr>
<td>JOUR course from selected concentration</td>
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</tr>
<tr>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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<td></td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
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### Fall Semester Year 2

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PLSC 2003</td>
<td>American National Government (meets a requirement for core area e)</td>
<td>3</td>
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<tr>
<td>JOUR 1023</td>
<td>Media and Society or JOUR 1035 Fundamentals of Journalism (as needed)</td>
<td>3</td>
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<td>Core from area f (as needed)</td>
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### Spring Semester Year 2

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>††PLSC course from selected concentration</td>
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<td></td>
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<tr>
<td>††JOUR course from selected concentration</td>
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</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
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<td></td>
</tr>
<tr>
<td>Core from area f (as needed)</td>
<td>3</td>
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<tr>
<td>Total Hours</td>
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### Fall Semester Year 3

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<thead>
<tr>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>††JOUR course from selected concentration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>††PLSC course from selected concentration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
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<td></td>
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<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
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<tr>
<td>Core from area f (as needed)</td>
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<tr>
<td>Total Hours</td>
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### Spring Semester Year 3

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<tr>
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<th>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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<td>Core from areas a, b, c, d or e (as needed)</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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<td></td>
</tr>
<tr>
<td>Total Hours</td>
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<td></td>
</tr>
</tbody>
</table>
**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:

1. A list of 18 hours of journalism courses. This program is recommended for students who plan to work in the mass media to promote their programs.
2. A maximum of nine hours may be submitted from courses taken in fulfillment of elective requirements (for detailed descriptions please see the listings under the individual departmental headings):

   - 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 the department of English on page 157.

**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 361 FOR JOURNALISM (JOUR) COURSES

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### Latin American and Latino Studies (LAST)

Steven M. Bell  
Chair of Studies  
605 Kimpel Hall  
479-575-2951  
http://www.uark.edu/depts/lastinfo/

- Professors Britton, Horowitz (economics), Graff, Hehr (geography), Purvis (journalism and political science), Restrepo (foreign languages), Sloan (music)
- Associate Professors Bell (foreign languages), Erickson (anthropology), Kali, Méndez (economics), Sloan (history), Ryan (political science)
- Assistant Professors Ruiz, Villalobos (foreign languages), Reyes (economics), 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 and Latino studies together with a major in another discipline in Fulbright College.

Advice on appropriate combinations of Latin American and Latino 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 Major in Latin American and Latino 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 coursework 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 adviser’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 or Latino content, or individualized study options under instructors teaching Latin American or Latino 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 3213 Indians of North America
- ANTH 3503 Power and Popular Protest in Latin America
- ANTH 3523 Gender and Politics in Latin America
- ANTH 4263 Indentity and Culture in the U.S.-Mexico Borderlands
- 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

**History**
- HIST 3203 Colonial Latin America
- HIST 3213 Modern Latin America
- HIST 3223 Violence and Conflict in Latin American History
- HIST 4783 History of Modern Mexico
- HIST 5313 Reading Seminar in Latin American History
- HIST 5323 Research Seminar in Latin American History

**Latin American Studies**
- LAST 2013 Intro to Latin American Studies
- LAST 3013 Modern Latin American Lit in Translation
- LAST 4003 Latin American Studies Colloquium
Mathematical Sciences (Masc)

Chaim Goodman-Strauss
Chair of the Department
301 Science and Engineering
479-575-3351

- Distinguished Professor Schein
- Professors Akeroyd, Brewer, Campogna, Cochran, Feldman, Goodman-Strauss, Lanzani, Luecking, Madison, Ryan
- Professors Emeriti Duncan, Dunn, Kimura, Long, Scroggs, Summers
- Associate Professors Arnold, Johnson, Meaux, Meek, Petris, Rieck
- Associate Professors Emeriti Monroe, Sekiguchi
- Assistant Professors Dingman, Han, Song, Raich, Tjani
- Clinical Assistant Professor Woodland
- Visiting Assistant Professors Munasinghe
- Instructors Korth, Mills, Stephenson
- Instructor Emeriti Lieber, Mackey, Wickliff (M.)

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 or 3093, 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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td>4</td>
<td>†MATH 2554 Calculus I</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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<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>General Elective</td>
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<td>16</td>
<td>Total Hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td>4</td>
<td>†MATH 2564 Calculus II</td>
</tr>
<tr>
<td>3</td>
<td>†MATH 2103 Discrete Mathematics</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>General Elective</td>
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<tr>
<td>16</td>
<td>Total Hours</td>
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<table>
<thead>
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<th>Fall Semester Year 2</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>†MATH 2574 Calculus III</td>
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<td>3</td>
<td>Core from areas a, b, c, d, or e (as needed)</td>
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<td>Core from areas a, b, c, d, or e (as needed)</td>
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<tr>
<td>4</td>
<td>General Electives</td>
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<td>14</td>
<td>Total Hours</td>
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<table>
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<tr>
<th>Spring Semester Year 2</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>††MATH 3083 Linear Algebra or MATH 3093 Abstract Linear Algebra</td>
</tr>
<tr>
<td>3</td>
<td>†Core from area g (if needed) or 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>
</tbody>
</table>
Requirements for a Major in Mathematics, B.S. Degree: As a part of the requirements for a B.S. degree in mathematics, the student must complete MATH 2103, MATH 2574, MATH 3083 or 3093, 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 2103/2111L 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.

Mathematics, B.S., Option 1 (Applied)

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
<td></td>
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<tr>
<td>4</td>
<td>†MATH 2554 Calculus I</td>
<td></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>Core from areas a, b, c, or e (as needed)</td>
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<td>General Elective</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>16</td>
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<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II</td>
<td></td>
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<tr>
<td>4</td>
<td>†MATH 2564 Calculus II</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>†MATH 3083 Linear Algebra or Elective* or †MATH 3093 Abstract Linear Algebra, or Elective</td>
<td></td>
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<tr>
<td>3</td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, or e (as needed)</td>
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<tr>
<td>4</td>
<td>Science Sequence 1</td>
<td></td>
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<td></td>
<td>Total Hours</td>
<td>17</td>
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</tbody>
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<th>Fall Semester Year 2</th>
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<tbody>
<tr>
<td>4</td>
<td>†MATH 2574 Calculus III</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>†MATH 3083 Linear Algebra or Elective* or †MATH 3093 Abstract Linear Algebra, or Elective</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c, or e (as needed)</td>
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</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>17</td>
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</tbody>
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<tr>
<th>Spring Semester Year 2</th>
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<tbody>
<tr>
<td>4</td>
<td>†MATH 3404 Differential Equations</td>
<td></td>
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</tbody>
</table>
### Mathematics, B.S., 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 †MATH 3093 Abstract Linear Algebra (if needed) or Core from areas a, b, c or e (as needed)
- 4 Science Sequence I
- 3 Core from areas a, b, c or e (as needed)

### Mathematics, B.S., Option 3 (Statistics)

**Fall Semester Year 1**
- 3 ENGL 1013 Composition I
- 4 †MATH 2554 Calculus I
- 3 Science Sequence I
- 3 Core from areas a, b, c or e (as needed)
- 14 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)
- 6 General Elective
- 15 Semester Hours

**Fall Semester Year 2**
- 4 †MATH 2574 Calculus III
- 3 †MATH 3083 Linear Algebra or †MATH 3093 Abstract Linear Algebra
- 4 †STAT 4003/4001L Statistical Methods / Lab
- 4 Core from areas a, b, c or e (as needed)
- 15 Semester Hours

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* Students should only take one of MATH 3083 or MATH 3093, but not both.
† 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 Mathematics: MATH 254 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 interest 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.

Advising Note: Students in Fulbright College of Arts and Sciences who want to teach mathematics in middle school should consult with a middle level adviser in the College of Education and Health Professions.

Requirements for Departmental Honors in Mathematics: The Departmental Honors Program in Mathematics is designed for the superior student and 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 Mathematics: MATH 2103, 2564, and 9 hours (3 courses) selected from MATH 2574, MATH 3083 or 3093, MATH 3103, MATH 3113, MATH 3404, and MATH 4513.

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.

MEDEVIAL AND RENAISSANCE STUDIES (MRST)

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.
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 Advanced Architectural Studies
DRAM 4773 Acting Shakespeare
ENGL 3433 Introduction to Chaucer
ENGL 4303 Introduction 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, 600-1250
HIST 4373 Mongol and Mamluk Middle East, 1250-1520
HIST 4393 The 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

**MIDDLE EAST STUDIES (MEST)**

Thomas R. Paradise
Interim Director, King Fahd Center for Middle East and Islamic Studies
202 Old Main
479-575-4157
http://www.uark.edu/depts/mesp/index.html
mest@uark.edu

- Professors Adams (English), Farah (curriculum and instruction), Haydar (foreign languages), Paradise (geosciences-geography), Rose (anthropology), Swedenburg (anthropology)
- Associate Professors Adler (philosophy, biblical Hebrew), Coon (history), D’Alisera (anthropology), Ghadbian (political science), Gordon (history), Kahf (comparative literature), Reid (political science), Wolpert (music)
- Assistant Professor Casana (anthropology)

Students interested in the Middle East and North Africa and wishing to maximize their potential for academic, business, professional, or government careers related to the area, may earn a major in Middle East studies with a required second major in an approved area such as anthropology, economics, foreign languages, geography, history, journalism, and political science. New students entering the program are required to notify both the major adviser and the MEST director of their intention to participate. Freshmen and sophomores considering this program are advised to begin their study of a Middle East language as early as possible. Students may also earn a minor in Middle East studies.

**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
- 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 600-1250
- 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 Introduction 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 4593 Islam and Politics  
PLSC 4843 The Middle East in World Affairs  
WLIT 3983/603V 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)**

**Ronda Mains**  
Chair of the Department  
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479-575-4701  
http://music.uark.edu  
music@uark.edu  
- Professors Cencel, Gates, Greeson, Mains, Mueller, Ragsdale, Ramey, Sloan, Thompson, Warren  
- Professors Emeriti Ballenger, Bright, Brothers, Detels, Groh, Jackson, Janzen, Umiker, Widder, Worthley  
- Associate Professors Jones, Margulis (E.), Margulis (J.), Misenhelter, Yoes  
- Associate Professors Emeriti Colber, Johnson  
- Assistant Professors Cholthitchanta, Hickson, Kahng, Pierce, Rulli  
- Visiting Assistant Professors Delaplaine, Gunter, Lacy, Morris, 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 year of residence. 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,
Music Education must complete the following stages.

Music Education, Choral/Piano: 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 emphasis.

2221, MUAC 2231 (except for piano majors – see below); 8 MUEN (see demonstration of piano skills appropriate for a composer or theorist. 364V (14), MUAP 4201; electives (may be non-music): Theory: MUTH 3603, and MUTH 3613.  Composition: MUTH 164V , MUTH or Composition must receive a grade of “B” or higher in MUTH 2603, 8 hours (see adviser for ensemble selection); electives (may be non-music): 4.

Piano Performance Major: Applied Piano 24 hours, of which 12 must be at the upper level (including MUAP 3201, MUAP 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUEN 3431 (8), MUEN 3501 (4), electives (may be non-music): 10.

Voice Performance Major: Applied Voice 24 hours, of which 12 must be at the upper level (including MUAP 3201, MUAP 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUEN 3431 (8), MUEN 3501 (4), electives (may be non-music): 11.

(GNOTE: 9 hours additional foreign language is also required, foreign language study must include French, German, and Italian.)

String Performance Major: Applied 28 hours, of which 16 must be at the upper level (including MUAP 3201, MUAP 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUEN 3431, MUEN 3501 (8); MUEN 3501 (4); electives (may be non-music): 4.

Woodwind, Brass, or Percussion Performance Major: Applied 24 hours, of which 12 must be at the upper level (including MUAP 3201, MUAP 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUEN 3431 (8), MUEN 3501 (4); electives (may be non-music): 10.

Guitar Performance Major: Applied 28 hours, of which 16 must be at the upper level (including MUAP 3201, MUAP 4201); Secondary MUAP or MUAC (4); MUHS 4703, MUTH 3603, 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 emphases; 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 2012, 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.

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.

Enrollment 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.

Music Education, Wind/Percussion: 14 MUAP to consist of 8 MUAP 110V; 5 MUAP 310V, MUAP 3201; 8 MUEN to consist of 2 MUEN 3441; 6 selected from MUEN 3431, MUEN 3441, MUEN 3461, MUEN 3481, MUEN 3511; 9 additional MUAP to consist of MUAC 1331, MUAC 1341, MUAC 1351, MUAC 1361, MUAC 1371, MUAC 2241, and either MUAC 1301 or MUAC 1311, MUPD 3811, MUED 4293; electives (may include MUTH 1003 and any MUEN): 8.

Music Education, Strings: 14 MUAP to consist of 8 MUAP 110V; 5 MUAP 310V, MUAP 3201; 8 MUEN 3431; 8 additional MUAP to consist of 2 chosen from MUAC 1331, MUAC 1341, MUAC 2141, MUAC 1301, MUAC 1311, MUAC 1351, MUAC 1361, MUAC 1371, MUPD 3811, MUED 4273; electives (may include MUTH 1003 and any MUEN): 8.

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 MUAP to include MUAC 1371, 1 of MUAP 1301 or MUAC 1311, 1 of MUAC 1311, MUAC 1341, MUAC 1351, MUAC 1361, or MUPD 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 MUAP to include MUAC 1371, 1 of MUAP 1301 or MUAC 1311, 1 of MUAC 1311, MUAC 1341, MUAC 1351, MUAC 1361, or MUPD 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.
MUAP to consist of 8 MUAP 110V, 5 MUAP 310V, MUAP 3201; 7 MUEN to be selected with the consent of the student 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 includes: MUTH 1603, MUTH 1621, MUTH 1631, MUTH 2603, MUTH 2621, MUTH 2631, MUTH 3603, MUTH 3613, MUHS 3703, MUHS 3713, MUHS 4253, MUAC 1221, MUAC 1231, 8 hours (normally one or two hours per semester) of applied study on voice or on one instrument and 4 hours (4 semesters) of ensemble to be selected with the consent of their advisers.

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. 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>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
<td>3-4</td>
</tr>
<tr>
<td>MUTH 1003 Basic Musicianship (if required) or Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>MUAC 1221 Piano for Music Majors I (fall only)</td>
<td>1</td>
</tr>
<tr>
<td>MUAP 110V Applied Voice/Instrument (usually 2 hours)</td>
<td>2</td>
</tr>
<tr>
<td>†‡MUEN Music Ensemble (see adviser)</td>
<td>1</td>
</tr>
<tr>
<td>MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013</td>
<td>3-4</td>
</tr>
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</table>

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1023 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>†‡MATH 2043, 2053, 2183 or Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>MUTH 1603 Music Theory I (spring only)</td>
<td>1</td>
</tr>
<tr>
<td>MUTH 1621 Aural Perception I</td>
<td>1</td>
</tr>
<tr>
<td>MUAC 1231 Piano for Music Majors II (spring only)</td>
<td>1</td>
</tr>
<tr>
<td>MUAP 110V Applied Voice/Instrument (usually 2 hours)</td>
<td>2</td>
</tr>
<tr>
<td>†‡MUEN 3411 Concert Choir (required for freshmen)</td>
<td>1</td>
</tr>
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<td>MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013</td>
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### Fall Semester Year 2

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<th>Hours</th>
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<tr>
<td>†‡MUTH 2603 Music Theory II</td>
<td>1</td>
</tr>
<tr>
<td>MUTH 1631 Aural Perception II</td>
<td>2</td>
</tr>
<tr>
<td>MUAP 110V Applied Voice/Instrument (usually 2 hours)</td>
<td>1</td>
</tr>
<tr>
<td>†‡MUEN Music Ensemble (see adviser)</td>
<td>1</td>
</tr>
<tr>
<td>MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
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</table>

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>†‡MUTH 2603 Music Theory II</td>
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</tr>
<tr>
<td>MUAP 110V Applied Voice/Instrument (usually 2 hours)</td>
<td>2</td>
</tr>
<tr>
<td>†‡MUEN Music Ensemble (see adviser)</td>
<td>1</td>
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<tr>
<td>MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
<tr>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td>3</td>
</tr>
</tbody>
</table>
### 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.

#### Fall Semester Year 1

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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>MUAC 1221 Piano for Music Majors I (fall only)</td>
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<tr>
<td>2</td>
<td>MUAP 1102 Applied Voice/Instrument</td>
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<td>3</td>
<td>†MUEN 3411 Concert Choir</td>
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<td>4</td>
<td>†MUEN 3441 Marching Band</td>
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<td>MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013</td>
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<tr>
<td>6</td>
<td>One course from Music Activity Group (see below)</td>
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<td>15</td>
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#### Spring Semester Year 1

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<td>ENGL 1023 Composition II</td>
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<td>MUTH 1603 Music Theory I (spring only)</td>
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<td>3</td>
<td>MUTH 1621 Aural Perception I</td>
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<td>4</td>
<td>MUAC 1231 Piano for Music Majors II (spring only)</td>
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<td>5</td>
<td>MUAP 1102 Applied Voice/Instrument</td>
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<td>6</td>
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<td>7</td>
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<tr>
<td>8</td>
<td>One course from Music Activity Group (see below)</td>
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<td>9</td>
<td>MUED 2012 Introduction to Music Education</td>
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<td>16</td>
<td>Total Hours</td>
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#### Fall Semester Year 2

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<td>1</td>
<td>†MUHS 4253 Special Topics in Music History</td>
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<td>2</td>
<td>†Upper-Level Elective from Fulbright College</td>
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</tr>
<tr>
<td>3</td>
<td>Core from area f (as needed)</td>
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</tr>
<tr>
<td>4</td>
<td>Core from area a, b, c, d or e (as needed)</td>
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<tr>
<td>5</td>
<td>Core from area a, b, c, d or e (as needed)</td>
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<tr>
<td>6</td>
<td>Core from area f (as needed)</td>
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| 15 | Semester Hours |

#### Spring Semester Year 2

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<tr>
<td>1</td>
<td>†MUHS 3713 History of Music from 1800</td>
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<tr>
<td>2</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
<td></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>4</td>
<td>Core from area f (as needed)</td>
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| 16 | Semester Hours |

#### Fall Semester Year 3

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<tbody>
<tr>
<td>1</td>
<td>†MUTH 3631 Music Theory IV</td>
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<tr>
<td>2</td>
<td>†MUTH 2631 Aural Perception IV</td>
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</tr>
<tr>
<td>3</td>
<td>†MUHS 3703 History of Music to 1800</td>
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<td>Core from area g (as needed) or †Advanced Level Elective</td>
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<tr>
<td>5</td>
<td>Core from area f (as needed)</td>
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| 15 | Semester Hours |

### Fall Semester Year 3

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<tbody>
<tr>
<td>1</td>
<td>†MUHS 3713 History of Music from 1800</td>
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</tr>
<tr>
<td>2</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>
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<tr>
<td>4</td>
<td>Core from area f (as needed)</td>
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| 16 | Semester Hours |

### Spring Semester Year 4

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<tbody>
<tr>
<td>1</td>
<td>†MUHS 4253 Special Topics in Music History</td>
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<tr>
<td>2</td>
<td>†Upper-Level Elective from Fulbright College</td>
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<tr>
<td>3</td>
<td>Core from area f (as needed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Core from area a, b, c, d or e (as needed)</td>
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<tr>
<td>5</td>
<td>Core from area a, b, c, d or e (as needed)</td>
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| 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.
### J. William Fulbright College of Arts and Sciences

#### Foreign Language

- At least 3 hours each of French, German, and Italian are taken.
- Students may take a foreign language in addition to the Fulbright College core requirement, so that three-hour (or more) general elective in place of a core area.
- Credit granted. Once all core requirements are met, students may substitute a credit hour requirement.
- Hours may vary by individual, based on placement and previous credit granted.

#### 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 and their music adviser.

#### 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.

Students in the Voice Performance major are required to take 9 hours of foreign language in addition to the Fulbright College core requirement, so that at least 3 hours each of French, German, and Italian are taken.

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>†‡MUEN Music Ensemble (see adviser)</td>
<td>†‡MUEN Music Ensemble (see adviser)</td>
</tr>
<tr>
<td>3 Core from area e</td>
<td>3 Core from area e</td>
</tr>
<tr>
<td>3 Core from areas a, b, or c (as needed)</td>
<td>3 Core from areas a, b, or c (as needed)</td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td>16 Semester Hours</td>
</tr>
</tbody>
</table>

#### Spring Semester Year 2

1 †‡MUEN Music Ensemble (see adviser)
2 †‡MUAP 1103 Applied Voice/Instrument
3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)

#### Spring Semester Year 3

1 †‡MUAP 2111/2121 Music Technology I/II
2 MUAP 1103 Applied Voice/Instrument
3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)
4 Foreign Language

#### Spring Semester Year 4

1 MUAP 2111/2121 Music Technology I/II
2 MUAP 1103 Applied Voice/Instrument
3 MLIT 1003 Music Lecture (for music majors) or HIST 1003 or HIST 1013 (as needed)
4 MLIT 2621 Aural Perception I
5 MUAP 2221 Piano for Music Majors IV (spring only)
6 MUAP 1103 Applied Voice/Instrument

#### Fall Semester Year 3

1 †‡MUAP 3102 Applied Voice/Instrument
2 †‡MUAP 3102 Music Technology IV (MUTH 1603, MUTH 2603)
3 †‡MUAP 2631 Aural Perception IV
4 †‡MUHS 3703 History of Music to 1800 (MLIT 1003, HIST 1003 and HIST 1013)
5 †‡MUAP 4763 Survey of Vocal Literature I or Core from areas a, b, c, or d (as needed)
6 †‡MUAP 3103 Applied Voice/Instrument
7 †‡MUEN Music Ensemble (see adviser)
8 †‡MUUP 3801 Conducting I

#### Fall Semester Year 4

1 †‡MUAP 3102 Applied Voice/Instrument
2 †‡MUAP 3102 Music Technology IV (MUTH 1603, MUTH 2603)
3 †‡MUAP 2631 Aural Perception IV
4 †‡MUHS 3703 History of Music to 1800 (MLIT 1003, HIST 1003 and HIST 1013)
5 †‡MUAP 4763 Survey of Vocal Literature I or Core from areas a, b, c, or d (as needed)
6 †‡MUAP 3103 Applied Voice/Instrument
7 †‡MUEN Music Ensemble (see adviser)
8 †‡MUUP 3801 Conducting I
9 †‡MUED 452V (4 or 8 hours) Student Teaching: Secondary Music.
10 Internship beyond and after the completion of degree requirements. The courses required in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.
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.

SEEN PAGES 372-375 FOR MUSIC (MLIT through MUTH) COURSES

PHILOSOPHY (PHIL)

Thomas D. Senor  
Chair of the Department  
318 Old Main  
479-579-3551  
http://www.uark.edu/depts/philinfo/phildept@uark.edu  
• Professor Spellman
• Professor Emeritus Nissen  
• Associate Professors Adler, Funkhouser, Lee, Lyons, Minar, Senor, Ward  
• Associate Professor Emeritus Edwards  
• Assistant Professor McMullin

Requirements for a Major in Philosophy: 33 semester hours in philosophy to include:

PHIL 2203 or PHIL 4253  
PHIL 4003  
PHIL 4033  
PHIL 4063, PHIL 4073, PHIL 4083, and PHIL 4123, PHIL 3983 or a successfully defended honors thesis in philosophy.

Writing Requirement: The writing requirement can be satisfied either by completion of an acceptable thesis or by approval of a research/analytical paper from any 4000-level course in philosophy submitted by the student to the Philosophy Department’s Undergraduate Committee.

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.

Philosophy 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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
</table>
| 3 ENGL 1013 Composition I  
| 3 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554  
| 3 PHIL 2003 Introduction to Philosophy  
| 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  
<p>|</p>
<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
</tr>
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</table>
| 3 ENGL 1023 Composition II  
| 3-4 MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, c, d or e (as needed)  
| 3 PHIL 2203 Logic  
| 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  
<p>|</p>
<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
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| 3 †‡ PHIL 4003 Ancient Greek Philosophy  
| 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)  
| 3 General Elective  
| 16 Semester Hours  
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<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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</thead>
</table>
| 3 †‡ PHIL 4053 Modern Philosophy  
| 3 †Core from area g (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)  
| 3 General Elective  
| 15 Semester Hours  
<p>|</p>
<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
</tr>
</thead>
</table>
| 3 †‡ PHIL course from Philosophy Area Group 1  
| 3 †PHIL 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)  
| 4 Core from area f (as needed)  
| 16 Semester Hours  
<p>|</p>
<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
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</thead>
</table>
| 3 †‡ PHIL course from History of Philosophy Group 2  
| 3 †Core from area g (if still needed) or †Advanced Level Elective  
| 3 Core from areas a, b, c, d or e (as needed)  
| 4 Core from area f (as needed)  
| 3 †Advanced Level Elective  
| 16 Semester Hours  
<p>|</p>
<table>
<thead>
<tr>
<th>Fall Semester Year 4</th>
</tr>
</thead>
</table>
| 3 †‡ PHIL course from Philosophy Area Group 1  
| 3 †PHIL 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)  
| 4 General Electives  
| 16 Semester Hours  

University of Arkansas, Fayetteville  

J. William Fulbright College of Arts and Sciences  

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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 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 also required):

PHIL 4013 Platonism and Origin 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
PHIL 4123 Classical Ethical Theory

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 378 FOR PHILOSOPHY (PHIL) COURSES

PHYSICS (PHYS)

Surendra P. Singh
Chair of the Department
226 Physics Building
479-575-2506
http://www.uark.edu/depts/physics/
physics@cavern.uark.edu

• Distinguished Professors Salamo, Xiao
• Professors Bellache, Gea-Banacloche, Gupta, Harter, Lacy, Lieber, Pederson, Singh, Thibado, Vyaz
• Research Professor Vickers
• Professors Emeriti Chan, Hobson, Hughes, Richardson, Zinke
• Associate Professors Fu, Li, Oliver, Stewart (G.)
• Assistant Professors Chakhalian, Gross, Kennefick (D.), Kennefick (J.), Stewart (J.)
• Instructors Skinner, Snyder

Requirement for B.S. Degree with a Major in Physics: The student must present a minimum of 40 semester hours in physics including PHYS 2054, PHYS 2074, PHYS 2094, PHYS 3414, PHYS 3614, PHYS 4073, PHYS 4991 and courses in one of five concentrations:

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 adviser’s permission.

Biophysics: PHYS 3113 and 13 semester hours including courses numbered 3000 and above in physics, astronomy, biology, and chemistry chosen with the adviser’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, CSCE 4423, or MEEG 2703 can be substituted for MATH 3423 with the adviser’s approval. In addition, CHEM 1103/1101L and CHEM 1123/1121L, or an approved 8 hours of laboratory-based courses in CSCE 2004 and CSCE 2014 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.

Biophysics Concentration

Well prepared students may skip BIOL 1543/1541L, and go immediately into the biology core courses.

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>Fall Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I</td>
<td>4 BIOL 1543/1541L Principles of Biology</td>
</tr>
<tr>
<td>4 BIOL 1543/1541L Biology I</td>
<td>4 †MATH 2554 Calculus I</td>
</tr>
<tr>
<td>4 †PHYS 2054 University Physics I</td>
<td>4 BIOL 2533 Cell Biology*</td>
</tr>
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<td>15 Semester Hours</td>
<td>15 Semester Hours</td>
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<td>Semester</td>
<td>Course Code</td>
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<td>Spring Semester 2</td>
<td>PHYS 2094</td>
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<td>* Or another chemistry, biology, astronomy, or physics elective from PHYS/ASTR Group A (below).</td>
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<tr>
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<td>MATH 2574</td>
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<tr>
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<td>CHEM 1103/1101L</td>
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<td>Core from areas a, b, c or e (as needed)</td>
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<td>MATH 3404</td>
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<td>MATH 3423</td>
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<td>CHEM 3603/3601L</td>
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<td>BIOL 2001</td>
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<td>CHEM 3613/3611L</td>
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<td>Core from area f (if needed) or General Electives</td>
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<td>Fall Semester 5</td>
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<td>CSCE 3143</td>
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<td>PHYS 4993</td>
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<td>Advanced level electives</td>
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<td>Total Hours</td>
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<tr>
<td></td>
<td>Total Hours</td>
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</tbody>
</table>

* 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 Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 122 of this chapter.

Computational Concentration

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<th>Semester</th>
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<td></td>
<td>MATH 2554</td>
<td>Calculus I</td>
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<tr>
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<td>PHYS 2054</td>
<td>University Physics I</td>
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<td>Spring Semester 1</td>
<td>ENGL 1023</td>
<td>Composition II</td>
<td>3</td>
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<td>MATH 2564</td>
<td>Calculus II</td>
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<td>Core from areas a, b, c or e</td>
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<td>14</td>
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<td>PHYS 2074</td>
<td>University Physics II</td>
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<td>PHYS 2094</td>
<td>University Physics III</td>
<td>4</td>
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<td>MATH 2574</td>
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<td>PHYS 3614</td>
<td>Modern Physics</td>
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<td>MATH 3404</td>
<td>Differential Equations</td>
<td>4</td>
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<tr>
<td></td>
<td>BIOL 203/2011L</td>
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<td>PHYS 3113</td>
<td>Analytical Mechanics</td>
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<td>MATH 3423</td>
<td>Advanced Applied Math</td>
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<td>Fall Semester 4</td>
<td>PHYS 3414</td>
<td>Electromagnetic Theory</td>
<td>4</td>
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<td>CHEM 3613/3611L</td>
<td>Organic Chemistry II</td>
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<td>Core from areas a, b, c or e (as needed)</td>
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<tr>
<td>Spring Semester 4</td>
<td>PHYS 3313</td>
<td>Algorithms or (recommended) PHYS/ASTR Group A or advanced level electives*</td>
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<td>MATH 3493</td>
<td>Senior Seminar</td>
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<tbody>
<tr>
<td>4</td>
<td>PHYS 220V Electronics I*</td>
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<td>†PHYS 2074 University Physics II</td>
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### Spring Semester Year 2

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<tr>
<td>4</td>
<td>†PHYS 2094 University Physics III</td>
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<td>†MATH 2574 Calculus III</td>
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<td>CHEM 1103/1101L University Chemistry I and Lab</td>
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### Fall Semester Year 3

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<tr>
<td>3</td>
<td>†MATH 3423 Advanced Applied Math I</td>
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<td>General Elective</td>
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### Spring Semester Year 3

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<tr>
<td>4</td>
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### Fall Semester Year 4

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<tr>
<td>3</td>
<td>†PHYS 4073 Introduction to Quantum Mechanics</td>
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<td>2-3</td>
<td>†PHYS 320V Electronics II or other †PHYS/ASTR Group A</td>
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<tr>
<td>3</td>
<td>General Elective or †PHYS/ASTR Group A</td>
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<td>Core from areas a, b, c or e (as needed)</td>
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<td>†PHYS 4713 Introduction to Solid State Physics</td>
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</tr>
<tr>
<td>9</td>
<td>General Electives</td>
<td></td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>Total Hours</td>
<td></td>
</tr>
</tbody>
</table>

* 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.

### Optics Concentration

#### Fall Semester Year 1

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>†MATH 2554 Calculus I</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>†PHYS 2054 University Physics I</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>PHYS 220V Electronics I*</td>
<td></td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Spring Semester Year 1

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>†MATH 2564 Calculus II</td>
<td></td>
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</tbody>
</table>

### Professional Concentration

#### Fall Semester Year 1

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>†MATH 2554 Calculus I</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>†PHYS 2054 University Physics I</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>PHYS 220V Electronics I*</td>
<td></td>
</tr>
<tr>
<td>15 Total Hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Spring Semester Year 1

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>†MATH 2564 Calculus II</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, c or e (as needed)</td>
<td></td>
</tr>
<tr>
<td>Semester</td>
<td>Course Description</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>Fall Semester Year 2</td>
<td>PHYS 2091 University Physics III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS 3034 Advanced Calculus III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 1103 University Chemistry I (if needed) or Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS 3201 Electronics II*</td>
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</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td></td>
</tr>
<tr>
<td>Spring Semester Year 2</td>
<td>PHYS 3601 Modern Physics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3404 Differential Equations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 1123/1121L University Chemistry II and Lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td></td>
</tr>
<tr>
<td>Fall Semester Year 3</td>
<td>PHYS 3113 Analytical Mechanics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3423 Advanced Applied Math I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from area f (if needed) or Advanced Level Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
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<tr>
<td></td>
<td>General Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td></td>
</tr>
<tr>
<td>Spring Semester Year 3</td>
<td>PHYS 3414 Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS 3433 Thermal Physics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
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<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
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</tr>
<tr>
<td></td>
<td>Core from area f (if needed) or General Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td></td>
</tr>
<tr>
<td>Fall Semester Year 4</td>
<td>PHYS 4071 Introduction to Quantum Mechanics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS/ASTR Group A</td>
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<tr>
<td></td>
<td>General Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS 4621L Modern Physics Lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td></td>
</tr>
<tr>
<td>Spring Semester Year 4</td>
<td>PHYS/ASTR Group A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS/ASTR Group A (as needed) or General Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS 499I Senior Seminar</td>
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<tr>
<td></td>
<td>Core from areas a, b, c, or e (as needed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Electives (to complete 124 hour rule)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Semester Hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td></td>
</tr>
</tbody>
</table>

* 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 60-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.

**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

**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 2031/2031L, PHYS 2033/2033L, 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 1211) 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.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester Year 1</td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td></td>
<td>JOUR 1023 Media and Society* (required for journalism sequence) or General Elective</td>
</tr>
<tr>
<td></td>
<td>Begin Math Sequence</td>
</tr>
<tr>
<td></td>
<td>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) (delayed if 5 hour math is taken)</td>
</tr>
<tr>
<td></td>
<td>Total Semester Hours</td>
</tr>
<tr>
<td>Spring Semester Year 1</td>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td></td>
<td>JOUR 1033 Fundamentals of Journalism* (required for journalism sequence) or General Elective</td>
</tr>
<tr>
<td></td>
<td>Continue Math Sequence (if needed) or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>BIOL 1543/1541L Principles of Biology, or other biological science core from group I</td>
</tr>
</tbody>
</table>
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 or 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 379 FOR PHYSICS (PHYS) COURSES

**POLITICAL SCIENCE (PLSC)**

Margaret Reid
Chair of the Department
428 Old Main
479-575-3356
http://www.uark.edu/depts/plscinfo/

- Professors Kelley, Reid, Shields
- Professors Emeriti Neuse, Savage, Vanneman
- Associate Professors Conge, Dowdle, Ghdbian, Kerr, Parry, Ryan, Schreckhise
- Associate Professor Emeritus Tweraser
- Assistant Professors Ford, Hansen, Kim, Stewart, 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 213 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 3223, PLSC 3233, PLSC 3243, PLSC 3253, PLSC 4203, PLSC 4213, PLSC 4223, PLSC 4243, PLSC 4253, PLSC 4283, PLSC 4373

Comparative Politics

PLSC 3503, PLSC 3523, PLSC 3573, PLSC 4513, PLSC 4563, PLSC 4573, 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 4903, PLSC 4923

Public Administration

PLSC 3103, 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 advisor 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 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.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 15-16 | 3 ENGL 1013 Composition I  
3 MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554  
3 PLSC 2003 American Nat'l. Government or Core from areas a, b, c, d, or e  
3 Core from areas a, b, c, d, or e (as needed)  
3 Core from areas a, b, c, d, or e (as needed) |

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 3     | ENGL 1023 Composition II  
3 MATH 2043, 2053, 2183 or Core from areas a, b, c, d, or e (as needed)  
3 PLSC 213 Intro to Comparative Politics or PLSC 2003 (if not taken earlier)  
3 Core from Group 2 or Core from areas a, b, c, d, or e (as needed)  
4 Core from area f (as needed) |

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 15    | 3 PLSC course from Group 2 or Core from areas a, b, c, d, or e (as needed)  
3 PLSC 2013 (if not taken earlier) or PLSC course from Group 3  
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 2

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 3     | Core from area g (if required) or Advanced Level Elective  
3 PLSC course from Group 2 (if not taken) or PLSC course from Group 3  
3 Core from areas a, b, c, d, or e (as needed) or PLSC course from Group 1  
3 Core from areas a, b, c, d, or e (as needed)  
3 General Elective  
15 Semester Hours |

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 16    | 3 PLSC course from Group 3  
3 PLSC course from Group 3  
3 Core from area g (if required) or Advanced Level Elective  
3 Core from areas a, b, c, d, or e (as needed)  
4 Core from area f  
16 Semester Hours |

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 3     | PLSC course from Group 3  
3 PLSC course from Group 3  
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)  
16 Semester Hours |

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course(s)</th>
</tr>
</thead>
</table>
| 16    | 3 PLSC course from Group 3  
3 PLSC course from Group 3 or Upper Level ARSC 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 Advanced Level Elective  
1 General Elective  
16 Semester Hours |
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 373, and 15 additional hours of advanced political science courses elected from one of the other two field concentrations. Those wishing to emphasize American political affairs may elect the additional hours from the following:

- PLSC 3103
- PLSC 3153
- PLSC 3183
- PLSC 3223
- PLSC 3233
- PLSC 3243
- PLSC 3253
- PLSC 3603
- PLSC 3853
- PLSC 3923H
- PLSC 3913
- PLSC 3933
- PLSC 394V
- PLSC 399VH
- PLSC 4193
- PLSC 4203
- PLSC 4213
- PLSC 4243
- PLSC 4253
- PLSC 4903
- PLSC 4263

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 399VH
- PLSC 4513
- PLSC 4563
- PLSC 4573
- PLSC 4593
- PLSC 4803
- PLSC 4813
- PLSC 4823
- PLSC 4843
- PLSC 4873

For the eight-semester program plan or the journalism requirements, see the combined major in Journalism and Political Science on page 170. Students should consult with their adviser in each department.

Political Science and Latin American and Latino Studies: For the requirements for a combined major in political science and Latin American studies, see page 171.

Requirements for a Minor in Political Science: 18 hours including PLSC 2003 or PLSC 2013. At least 9 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. 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: 15 semester hours from the following:

- AGEC 3503
- ARCH 5323
- BLAW 3033
- CMJS 3003
- CMJS 3503
- COMM 4113
- FDSC 3202
- INEG 3113
- JOUR 3633
- OMGT 4313
- PHIL 4143
- PLSC 3243
- PLSC 3813
- PLSC 4193
- PLSC 4253
- PLSC 4263
- SCWK 3533

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 380 FOR POLITICAL SCIENCE (PLSC) COURSES. SEE PAGE 377 FOR PUBLIC ADMINISTRATION (PADM) COURSES

PSYCHOLOGY (PSYC)

Douglas A. Behrend
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- University Professor Emeritus Dana
- Professors Behrend, Cavell, Lohr, Schroeder, Striping
- Professors Emeriti Knowles, Marr, Schuldt, Trapp, Witte
- Associate Professors Beike, Feldner, Freund, Lampinen, Levine, Petretic, Williams
- Associate Professors Emeriti Bonge, Westendorf
- Assistant Professors Bridges, Eidelberg, Ham, Leon-Feldner
- Adjunct Professor Judges
- Adjunct Assistant Professor Cline, Irwin, Revelle, Scott
- Clinical Assistant Professor Perry
- Visiting Assistant Professor Zies

Requirements for B.A. Degree with a Major in Psychology: Minimum of 33 semester hours to include: PSYC 2003, PSYC 2013, and PSYC 3073; six hours chosen from 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 this 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 encour-
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 Fulbright College writing requirement by successful completion (a grade of at least a "C") in either PSYC 328V or PSYC 428V, each of which requires a final research paper written in American Psychological Association style.

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.

Honors 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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tr>
<td>3 ENGL 1013 Composition I</td>
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<td>3 †PSYC 2013 Statistics for Psychologists or PSYC 2003 (if not taken earlier)</td>
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<td>3 †‡PSYC 3073 Research Methods or †PSYC 2013 (if not taken earlier)</td>
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<tr>
<td>3 †‡PSYC 3073 Research Methods or Core from areas a, b, c, d or e (as needed)</td>
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<td>3 †‡PSYC course from Group A or B (if 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>1 General Elective</td>
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<td>124 Total Hours</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.

**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
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, Ghabrian, 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 be 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 383 FOR PSYCHOLOGY (PSYC) COURSES

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 2003, PSYC 2013, and PSYC 3073. A maximum of three hours of PSYC 206V and/or PSYC 207V 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 383 FOR PSYCHOLOGY (PSYC) COURSES

REPRESENTATIVE CORE COURSES

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 4533 Middle East 600-1250  
HIST 4573 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 3923H “Thomas Merton” or “St. Peter’s and the Vatican”  
HUMN 425V Colloquium: Hebrew Bible in Translation  
PHIL 4013 Platonism and Origin of Christian Theology  
PHIL 4023 Medieval Philosophy  
PHIL 4303 Philosophy of Religion  
PLSC 4593 Islam and Politics  
SOCI 3103 Religion and Society  
WLIT 3983 Quran and Mid Eastern Literature

RUSSIAN STUDIES (RSST)

Donald R. Kelley  
Chair of Studies  
428 Old Main  
479-575-2006  
• Professors Kelley (political science), Gay (economics), Tucker (foreign languages)  
• Assistant Professors Ferrier (economics), Starks (history)

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:

**Foreign Language**
- RUSS 4123 Survey of Russian Literature from its Beginnings to the 1917 Revolution  
- RUSS 4133 Survey of Russian Literature  
- RUSS 475V Special Investigations

**History**
- HIST 4283 Russia to 1861  
- HIST 4293 Russia Since 1861

**Political Science**
- PLSC 394V Readings in Political Science  
- PLSC 4513 Creating Democracies  
- PLSC 4563 Government & Politics of Russia  
- PLSC 4813 Politics of the Cold War

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 Introduction to Biological Anthropology and Lab  
- COMM 1313 Fundamentals of Communication  
- PSYC 2003 General Psychology  
- PSYC 2003 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 adviser 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
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.

### Fall Semester Year 1

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<th>ENGL 1013 Composition I</th>
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### Spring Semester Year 1

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### Spring Semester Year 2

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<tr>
<td>3</td>
<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>Statistics (SOCI, PSYC, STAT, etc) (4 Hours if SOCI)</td>
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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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### Spring Semester Year 4

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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 385 FOR SOCIAL WORK (SCWK) COURSES

### SOCIOLOGY AND CRIMINAL JUSTICE (SOCI)

Brent L. Smith
Chair of the Department
211 Old Main
479-575-3205
http://sociology.uark.edu

- Distinguished Professor Smith
- University Professor Morgan
- University Professor Emeritus Ferritor
- Professors Fitzpatrick, Gaber, Schwab, Zajicek
- Professors Emeriti Mangold, Prassel, Rice
- Associate Professors Adams, Engen, Holyfield, Koski, Worden, Yang
- Associate Professor Emeritus Sieger
- Assistant Professors Bradley, Mysrl, Morimoto
- Visiting Assistant Professors Nalley, Shields
- Instructors Thompson

### Sociology (SO CI)

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 3323, SOCI 3301L, SOCI 3303, SOCI 3313, SOCI 4023, SOCI 4045, 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 a core area.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Fall Semester Year 1</th>
<th>Spring Semester Year 1</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3 ENGL 1013 Composition I</td>
<td>3 ENGL 1023 Composition II</td>
</tr>
<tr>
<td></td>
<td>3-4 MATH 1203 (if required) or †MATH 2043, 2053, 2183 or 2554</td>
<td>3-4 MATH 2043, 2053, 2183, 2554 or Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td></td>
<td>3 SOCI 2013 General Sociology or Core from areas a, b, c, d or e (as needed)</td>
<td>3 SOCI 2013 General Sociology (if still needed) or 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 Total Hours</strong></td>
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<th>Semester</th>
<th>Fall Semester Year 2</th>
<th>Spring Semester Year 2</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>4 †SOCI 3303 Social Data Analysis and Lab</td>
<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>
<td>3 †SOCI 3313 Social Research</td>
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### Fall Semester Year 3

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<thead>
<tr>
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<tr>
<td>†SOCI 3193 Race, Class, &amp; Gender</td>
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<tr>
<td>†SOCI 3223 Social Psychology</td>
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### Spring Semester Year 3

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<td>Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td>Core from area f (as needed)</td>
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<td><strong>Total Hours</strong></td>
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### Fall Semester Year 4

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<tr>
<td>†SOCI Upper Level Elective</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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<td>General Elective</td>
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### Spring Semester Year 4

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<tr>
<td>†SOCI 399VH Honors Course</td>
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<td>Core from areas a, b, c, d or e (as needed)</td>
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</tr>
<tr>
<td>†Advanced Level Elective</td>
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<tr>
<td>†Advanced Level Elective</td>
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<tr>
<td>General Elective</td>
<td>15</td>
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<tr>
<td><strong>Semester Hours</strong></td>
<td><strong>124 Total Hours</strong></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 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 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 192.

For requirements for an M.A. degree in sociology, see the Graduate School Catalog.

See page 386 for Sociology (SOCI) Courses, See page 330 for Criminal Justice (CMJS) Courses.
Criminal Justice (CMJS)

Brent L. Smith
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 3503, 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 advisor. 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 project may be an intensive 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>3</th>
<th>ENGL 1013 Composition I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-4</td>
<td>MATH 1203 (If required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>SOCI 2013 General Sociology or Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
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<tr>
<td></td>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td></td>
<td>15-16</td>
<td>Semester Hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th>3</th>
<th>ENGL 1023 Composition II</th>
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</thead>
<tbody>
<tr>
<td>Fall Semester Year 2</td>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Fall Semester Year 2</td>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Fall Semester Year 2</td>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Fall Semester Year 2</td>
<td>3</td>
<td>Core from areas a, b, c, d or e (as needed)</td>
</tr>
<tr>
<td>Fall Semester Year 2</td>
<td>3</td>
<td>CMJS 2003 Intro to CMJS</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Semester Hours</td>
</tr>
</tbody>
</table>

| Spring Semester Year 2 | 3 | Core from area g (if needed) or Advanced Level Elective |
| Spring Semester Year 2 | 3 | CMJS 3043 The Police and Society |
| Spring Semester Year 2 | 3 | CMJS/SOCI 3203 Criminology |
| Spring Semester Year 2 | 3 | Core from areas a, b, c, d or e (as needed) |
| Spring Semester Year 2 | 4 | Core from area f (as needed) |
|                       | 16 | Semester Hours |

| Fall Semester Year 3   | 4 | SOCI 3303/3301L Social Data and Analysis/Lab |
| Fall Semester Year 3   | 3 | CMJS/SOCI 3203 Corrections |
| Fall Semester Year 3   | 3 | Advanced Level Elective |
| Fall Semester Year 3   | 3 | Core from areas a, b, c, d or e (as needed) |
| Fall Semester Year 3   | 16 | Semester Hours |

| Spring Semester Year 3 | 3 | SOCI 3313 Social Research |
| Spring Semester Year 3 | 3 | CMJS 3003 Criminal Law and Society or (CMJS 3503) Criminal Procedures |
| Spring Semester Year 3 | 3 | Core from areas a, b, c, d or e (as needed) |
| Spring Semester Year 3 | 4 | Core from area g (if still needed) or Advanced Level Elective |
| Spring Semester Year 3 | 4 | Core from area f (as needed) |
|                       | 16 | Semester Hours |

| Fall Semester Year 4   | 3 | CMJS/SOCI 3000-4000 elective |
| Fall Semester Year 4   | 3 | Core from areas a, b, c, d or e (as needed) |
| Fall Semester Year 4   | 3 | Core from areas a, b, c, d or e (as needed) |
| Fall Semester Year 4   | 3 | Advanced Level Elective |
| Fall Semester Year 4   | 3 | General Elective |
|                       | 15 | Semester Hours |

| Spring Semester Year 4 | 3 | CMJS/SOCI 3000-4000 elective |
| Spring Semester Year 4 | 3 | CMJS/SOCI 3000-4000 elective |
| Spring Semester Year 4 | 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.

SEE PAGE 330 FOR CRIMINAL JUSTICE (CMJS) COURSES.
### WORLD LANGUAGES, LITERATURES, AND CULTURES (WLLC)

Joan F. Turner  
Chair of Department  
425 Kimpel Hall  
479-575-2951  
http://www.uark.edu/depts/flaninfo/  
• Professors Haydar (A.), Levine, Pritchett, Restrepo, Tucker, Williams  
• Professors Emeriti Eichmann, Falke, Hanlin, Ricker  
• Associate Professors Arenberg, Bell, Christiansen, Comfort, Condray, Davis, Fredrick, Fukushima, Jones, Ruiz, Turner  
• Associate Professors Emeriti Hassel, Horton  
• Assistant Professors Billings, Hoyer, Pappas, Rozier, Villalobos  
• Instructors Haydar (F), 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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
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<tr>
<td>3-4</td>
<td>MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3</td>
<td>FREN course from Group A</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
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<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
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<tr>
<td>15-16 Semester Hours</td>
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### Spring Semester Year 1

|  | 3  | ENGL 1023 Composition II |
|  | 3-4 | 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 Semester Hours |  |

### Fall Semester Year 2

|  | 3  | FREN course from Group A or †FREN course from Group B |
|  | 3  | †Core from area e (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 Semester Hours |  |

### Spring Semester Year 2

|  | 3  | FREN course from Group A or †FREN course from Group B |
|  | 3  | †Core from area e (if required) or Advanced Level Elective |
|  | 3  | Core from areas a, b, d or e (as needed) |
|  | 3  | General Elective |
|  | 16 Semester Hours |  |

### Fall Semester Year 3

|  | 3  | †FREN course from Group B |
|  | 3  | †FREN course from Group C |
|  | 3  | †Core from area e (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 Semester Hours |  |

### Spring Semester Year 3

|  | 3  | †FREN course from Group B or †FREN course from Group C |
|  | 3  | †FREN course from Group C |
|  | 3  | †Core from area e (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 Semester Hours |  |

### Fall Semester Year 4

|  | 3  | †FREN course from Group C (as needed) |
|  | 3  | †FREN course from Group C (as needed) |
|  | 3  | †Advanced Level Elective |
|  | 3  | General Elective |
|  | 3  | General Elective |
|  | 15 Semester Hours |  |

### Spring Semester Year 4

|  | 3  | †FREN course from Group C (as needed) or General Elective |
|  | 3  | †FREN course from Group C (as needed) or General Elective |
|  | 3  | †Advanced Level Elective |
|  | 3  | †Advanced Level Elective |
|  | 3  | †Advanced Level 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.

**Group A:** Courses to complete the basic language requirement, as needed.  
FREN 1003 Elementary French I  
FREN 1013 Elementary French II  
FREN 2003 Intermediate French I  
FREN 2013 Intermediate French II  
**Group B:** Minimum 9 hours  
Required courses:
**FREN 3003** Advanced French  
**FREN 3113** Introduction to Literature  
**FREN 4003** Advanced Grammar  
**Electives:**  
**FREN 3033** 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, three hours of conversation (GERM 3033 or GERM 4033), 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.

<table>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3-4</td>
<td>MATH 1203 (if required) or MATH 2043, 2053, 2183 or 2554</td>
</tr>
<tr>
<td>3</td>
<td>GERM course from Group A</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
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<th></th>
</tr>
</thead>
<tbody>
<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, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>GERM course from Group A</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 f (as needed)</td>
</tr>
<tr>
<td><strong>16 Total Hours</strong></td>
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</table>

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<thead>
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<th><strong>Fall Semester Year 2</strong></th>
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<tbody>
<tr>
<td>3</td>
<td>GERM course from Group A or GERM course from Group B</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
</tr>
<tr>
<td>3</td>
<td>Core from area f (as needed)</td>
</tr>
<tr>
<td><strong>16 Total Hours</strong></td>
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<table>
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<tr>
<th><strong>Spring Semester Year 2</strong></th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>Core from area g (if required) or Advanced Level Elective</td>
</tr>
<tr>
<td>3</td>
<td>GERM course from Group A or GERM course from Group B</td>
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<tbody>
<tr>
<td>3</td>
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<td>GERM course from Group B</td>
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<td>Core from areas a, b, d or e (as needed)</td>
</tr>
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<td><strong>16 Total Hours</strong></td>
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<tbody>
<tr>
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<td>GERM course from Group B</td>
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<td>GERM course from Group B (if needed) or GERM course from Group C</td>
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<td>Core from areas a, b, d or e (as needed)</td>
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<td>3</td>
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<td>GERM course from Group C (as needed)</td>
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<td>6</td>
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</tr>
<tr>
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<td>Advanced Level Elective</td>
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<td>3</td>
<td>Advanced Level Elective</td>
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<td>General Elective</td>
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<tr>
<td><strong>15 Semester Hours</strong></td>
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</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.

**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 4033 Advanced Conversation  
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
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.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
<th>3</th>
<th>ENGL 1013 Composition I</th>
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<tbody>
<tr>
<td></td>
<td>3-4</td>
<td>MATH 1203 (if required) or †MATH 2043, 2053, 2183 or 2554</td>
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<td>3</td>
<td>Core from areas a, b, d or e (as needed)</td>
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<td>Core from areas a, b, d or e (as needed)</td>
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<td>15-16</td>
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<th>Spring Semester Year 1</th>
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<th>ENGL 1023 Composition II</th>
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<td></td>
<td>3-4</td>
<td>†MATH 2043, 2053, 2183 or 2554 or Core from areas a, b, d or e (as needed)</td>
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<tr>
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<td>3</td>
<td>SPAN course from Group A</td>
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<td>Core from areas a, b, d or e (as needed)</td>
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<td>4</td>
<td>Core from area f (as needed)</td>
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<td>16</td>
<td>Total Hours</td>
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<table>
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<th>Spring Semester Year 2</th>
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<td>†</td>
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<td>General Elective</td>
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<td>Total Hours</td>
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<th>††SPAN course from Group B</th>
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<td>††SPAN course from Group B</td>
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<td>Core from areas a, b, d or e (as needed)</td>
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<td>Total Hours</td>
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<th>††SPAN course from Group B</th>
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<td>††SPAN course from Group B (if needed) or †Group C</td>
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<td>Core from areas a, b, d or e (as needed)</td>
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<table>
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<th>Fall Semester Year 4</th>
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<th>††SPAN course from Group C (as needed)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>††SPAN course from Group C (as needed)</td>
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<th>††SPAN course from Group C (as needed)</th>
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<tbody>
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<td>††SPAN course from Group C (if needed) or †Advanced Level Elective</td>
</tr>
<tr>
<td></td>
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<td>Semester Hours</td>
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<tr>
<td>124</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.

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 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 a Minor in Foreign Languages with a Business Orientation:

**French:** Courses required are FREN 3003, FREN 3103, FREN 4003, FREN 4033, and FREN 4333.

**Spanish:** Courses required are SPAN 3003, SPAN 3033, SPAN 3103, SPAN 4003, and SPAN 4333. In some cases, specific course requirements may be adjusted to the individual needs of the candidate with the permission of the Spanish adviser.

**Japanese:** Courses required are JAPN 3003, JAPN 3013, JAPN 3033, and JAPN 4333. In addition to these four courses, students must choose one of the following elective courses: JAPN 3983 or JAPN 4313.

In some cases, elective courses may be adjusted to the individual needs of the candidate with the permission of the Japanese adviser.

For information on advanced degrees in foreign languages, see the Graduate School Catalog.

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 391 FOR WORLD LANGUAGES, LITERATURES, AND CULTURES (WLLC) COURSES; CHECK PAGE 309 FOR ALPHABETICAL LISTINGS OF SPECIFIC LANGUAGES.
### Additional Fulbright College B.A. and B.S.W. Core Requirement Areas

<table>
<thead>
<tr>
<th>Core Area</th>
<th>Hours</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Communication</td>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication</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>
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<tr>
<td></td>
<td></td>
<td>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*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(*PLSC 2003 required for BSW Social Work Majors)</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 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></td>
<td></td>
<td>* 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>d. Fine Arts/ World Literature/ Philosophy</td>
<td>15</td>
<td>Fine Arts – 6 hours from two areas:</td>
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<tr>
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<td></td>
<td>ARCH 1003 Architecture Lecture or LARC 1003 Landscape Architecture</td>
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<tr>
<td></td>
<td></td>
<td>ARHS 1003 Art History or ARTS 1003 Art Studio (not core credit for art majors)</td>
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<td></td>
<td></td>
<td>COMM 1003 Film Lecture</td>
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<td></td>
<td></td>
<td>DANC 1003 Movement and Dance</td>
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<td></td>
<td></td>
<td>DRAM 1003 Theater Lecture (not core credit for drama majors)</td>
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<tr>
<td></td>
<td></td>
<td>MLIT 1003 Music Lecture</td>
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<td>World Literature – 6 hours to include:</td>
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<td></td>
<td>WLIT 1113 World Literature I and either WLIT 1123 World Literature II OR</td>
</tr>
<tr>
<td></td>
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<td>a) a foreign language literature course</td>
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<tr>
<td></td>
<td></td>
<td>b) any other WLIT course</td>
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<td></td>
<td>c) CLST 1003 Classical Studies: Greece or CLST 1013 Classical Studies: Rome</td>
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<td>Philosophy – 3 hours from:</td>
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<td>PHIL 2003 Introduction to Philosophy or PHIL 2103 Introduction to Ethics</td>
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<tr>
<td>e. Social Sciences</td>
<td>6</td>
<td>ANTH 1023 Introduction to Cultural Anthropology</td>
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<td>ECON 2013 Principles of Macroeconomics or ECON 2143 Basic Economics</td>
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<td>GEOG 2003 World Regional Geography</td>
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<td>PLSC 2013 Introduction to Comparative Politics</td>
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<td>PSYC 2003 General Psychology*</td>
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<td>SOCI 2013 General Sociology* or SOCI 2033 Social Problems</td>
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<td>(*PSYC 2003 and SOCI 2013 required for BSW Social Work Majors)</td>
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<td>f. Natural Sciences</td>
<td>12</td>
<td>Biological Sciences</td>
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<td></td>
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<td>ANTH 1011L/1013 Biological Anthropology*</td>
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<td></td>
<td>BIOL 1541L/1543 Principles of Biology*</td>
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<td>BIOL 1611L/1613 Plant Biology</td>
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<td>BIOL 2011L/2013 General Microbiology</td>
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<td>BIOL 1601L/1603 General Zoology</td>
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<td>(*ANTH 1011L/1013 or BIOL 1541L/1543 required for BSW Social Work Majors)</td>
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<td>Physical Sciences</td>
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<td>ASTR 2001L/2003 Survey of the Universe</td>
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<td>CHEM 1051L/1053 Chemistry in the Mod. World</td>
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<tr>
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<td>CHEM 1101L/1103 University Chemistry I and CHEM 1121L/1123 University Chemistry II</td>
</tr>
<tr>
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<td></td>
<td>GEOL 1111L/1113 General Geology and GEOL 1131L/1133 Environmental Geology</td>
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<tr>
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<td>PHYS 1021L/1023 Physics in Human Affairs</td>
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<td></td>
<td>PHYS 2011L/2013 College Physics I and PHYS 2031L/2033 College Physics II</td>
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<td></td>
<td>PHYS 2050L/2054 University Physics I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 2070L/2074 University Physics II</td>
</tr>
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<td>g. Advanced Composition</td>
<td>3</td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing (ENGL 2013 is required for all journalism majors)</td>
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<td></td>
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<td>(*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>
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### Additional Fulbright College B.F.A. Core Requirement Areas

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<thead>
<tr>
<th>Core Area</th>
<th>Hours</th>
<th>Courses</th>
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<tbody>
<tr>
<td>a. Communication/Philosophy/Foreign Language</td>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication (required for art education) OR</td>
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<td></td>
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<td>PHIL 2203 Introduction to Logic OR</td>
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<td>An additional foreign language</td>
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<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>
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<tr>
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<td></td>
<td>HIST 2003 History of the American People to 1877 or HIST 2013 History</td>
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<td>of the American People from 1877 or PLSC 2003 American National</td>
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<tr>
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<td>Government Western Civilization – 6 hours from:</td>
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<td>HIST 1003 Institutions and Ideas of Western Civilization and HIST 1013</td>
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<td>Institutions and Ideas of Western Civilization II OR HIST 1113 World</td>
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<tr>
<td></td>
<td></td>
<td>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</td>
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<tr>
<td></td>
<td></td>
<td>(includes course numbers 1003*, 1013, 2003)</td>
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<td></td>
<td></td>
<td>* 1003 is non-degree credit unless student completed two years in a</td>
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<td></td>
<td></td>
<td>single foreign language and takes 1003 in a different language. *</td>
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<td></td>
<td></td>
<td>Students under this plan must begin with a degree-credit course in</td>
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<tr>
<td></td>
<td></td>
<td>foreign language.</td>
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<tr>
<td>d. World Literature</td>
<td>6</td>
<td>WLIT 1113 World Literature I</td>
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<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>
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<tr>
<td></td>
<td></td>
<td>ECON 2013 Principles of Macroeconomics</td>
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<tr>
<td></td>
<td></td>
<td>ECON 2143 Basic Economics</td>
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<td></td>
<td></td>
<td>GEOG 2003 World Regional Geography</td>
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<td></td>
<td></td>
<td>PSYC 2003 General Psychology (required for art education)</td>
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<td></td>
<td></td>
<td>SOCI 2013 General Sociology</td>
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<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>
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<tr>
<td></td>
<td></td>
<td>Sciences</td>
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<td></td>
<td></td>
<td>Biological Sciences</td>
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<tr>
<td></td>
<td></td>
<td>ANTH 1011L/1013 Biological Anthropology</td>
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<tr>
<td></td>
<td></td>
<td>BIOL 1541L/1543 Principles of Biology</td>
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<td></td>
<td></td>
<td>BIOL 1611L/1613 Plant Biology</td>
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<td></td>
<td></td>
<td>BIOL 1601L/1603 General Zoology</td>
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<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 1051L/1053 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; in</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>ENGL 1013 and &quot;A&quot; in ENGL 1023, both taken at UA or b) passing the</td>
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<tr>
<td></td>
<td></td>
<td>Advanced Composition Exam*</td>
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<td></td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing</td>
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<td></td>
<td></td>
<td>*(Students must satisfy the ENGL 1013 and 1023 requirement and complete</td>
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<td>30 credit hours before taking the Advanced Composition Exam. The exam</td>
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<td></td>
<td>must be taken before the student has completed 96 credit hours. Students</td>
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<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 B.M. 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</td>
<td>9</td>
<td>U.S. History/American National Government- 3 hours from:</td>
</tr>
<tr>
<td>Government and Western Civilization</td>
<td></td>
<td>HIST 2003 History of the American People to 1877</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or HIST 2013 History of the American People from 1877</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or PLSC 2003 American National Government</td>
</tr>
<tr>
<td>Western Civilization – 6 hours from:</td>
<td></td>
<td>HIST 1003 Institutions and Ideas of Western Civilization and HIST 1013 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>b. Foreign Language</td>
<td>Up to 6 hours (depending on placement)</td>
<td>Completion through the Elementary II (1013) level in a single language (Includes course numbers 1003* and 1013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 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>c. Fine Arts/ World Literature</td>
<td>6</td>
<td>MLIT 1003 Music Lecture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WLIT 1113 World Literature</td>
</tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>ECON 2013 Principals of Macroeconomics</td>
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<td></td>
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<tr>
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<td></td>
<td>BIOL 1611L/1613 Plant Biology</td>
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<tr>
<td></td>
<td></td>
<td>BIOL 2011L/2013 General Microbiology</td>
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<tr>
<td></td>
<td></td>
<td>BIOL 1601L/1603 General Zoology</td>
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<td></td>
<td></td>
<td>CHEM 1101L/1103 University Chemistry I</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 1121L/1123 University Chemistry II</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GEOL 1111L/1113 General Geology</td>
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<tr>
<td></td>
<td></td>
<td>GEOL 1131L/1133 Environmental Geology</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>PHYS 2011L/2013 College Physics I</td>
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<tr>
<td></td>
<td></td>
<td>PHYS 2031L/2033 College Physics II</td>
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<tr>
<td></td>
<td></td>
<td>PHYS 2050L/2054 University Physics I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 2070L/2074 University Physics II</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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* (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>
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<th>Hours</th>
<th>Courses</th>
</tr>
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<td><strong>a. US History/American National Government and Western Civilization</strong></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 of the American People from 1877 or PLSC 2003 American National Government</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Western Civilization – 6 hours from:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>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><strong>b. Foreign Language</strong></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>
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<td></td>
<td></td>
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</tr>
<tr>
<td><strong>c. Fine Arts/World Literature/Philosophy</strong></td>
<td>9 hours total selected from at least 2 different areas</td>
<td><strong>Fine Arts:</strong></td>
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<tr>
<td></td>
<td></td>
<td>ARCH 1003 Architecture Lecture or LARC 1003 Landscape Architecture</td>
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<td></td>
<td></td>
<td>ARHS 1003 Art History or ARTS 1003 Art Studio</td>
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<td></td>
<td></td>
<td>COMM 1003 Film Lecture</td>
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<td></td>
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<td>DANC 1003 Movement and Dance</td>
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<td></td>
<td></td>
<td>DRAM 1003 Theater Lecture</td>
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<td></td>
<td></td>
<td>MLIT 1003 Music Lecture</td>
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<td></td>
<td></td>
<td><strong>World Literature:</strong></td>
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<tr>
<td></td>
<td></td>
<td>WLIT 1113 World Literature I</td>
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<tr>
<td></td>
<td></td>
<td>WLIT 1123 World Literature II OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a) a foreign language literature course</td>
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<tr>
<td></td>
<td></td>
<td>b) any other WLIT course</td>
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<tr>
<td></td>
<td></td>
<td><strong>Philosophy:</strong></td>
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<tr>
<td></td>
<td></td>
<td>PHIL 2003 Introduction to Philosophy</td>
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<tr>
<td></td>
<td></td>
<td>PHIL 2103 Introduction to Ethics</td>
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<td></td>
<td></td>
<td>PHIL 2203 Introduction to Logic</td>
</tr>
<tr>
<td><strong>d. Natural Sciences</strong></td>
<td></td>
<td>Determined by the department of the major</td>
</tr>
<tr>
<td><strong>e. Social Sciences</strong></td>
<td>3</td>
<td>ANTH 1023 Introduction to Cultural Anthropology</td>
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<tr>
<td></td>
<td></td>
<td>ECON 2013 Principles of Macroeconomics or ECON 2143 Basic Economics</td>
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<tr>
<td><strong>f. 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*</td>
<td>ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing</td>
</tr>
<tr>
<td></td>
<td></td>
<td><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, an 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 per 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 advisor, 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
- Association of Information Technology Professionals
COllege Academic Regulations

Pre-Business Requirements

Students pursuing a degree in Walton College are classified as pre-business with an intended major until all pre-business requirements are fulfilled. The following policies apply to the pre-business program:

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 Interna-tional.

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 be accepted in transfer as junior/senior business electives.

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.

Restrictions on General Education Electives: Only six hours total of general education electives will be allowed in Physical Education Activity (PEAC) or Dance Education Activity (DEAC) courses.

Transfer of Credit Policies

In addition to the University policies controlling the granting of credit for course work taken at other institutions, the following policies apply to transfer work applied to any undergraduate business program:

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.)

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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 be accepted in transfer as junior/senior business electives.

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.

- Beta Alpha Psi (accounting honorary and professional)
- Beta Gamma Sigma (business honorary)
- Economics Club
- Finance Club
- National Association of Black Accountants
- Omicron Delta Epsilon (economics honorary)
- Human Resource Management Association
- Transportation and Logistics Association
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 to 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, and

   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.

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 WCOB 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://catalogostudies.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. Students are required to complete the departmental colloquium in their major department. Students majoring in more than one area of study may elect to choose the departmental colloquium in either major department.
   d. 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. Students are required to complete the departmental colloquium in their major department. Students majoring in more than one area of study may elect to choose the departmental colloquium in either major department.
   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
   d. Concentration IV – Real Estate
   e. Concentration V – Personal Financial Management

4. General Business (GBUS)

5. Information Systems (ISYS)
   b. Concentration II – Enterprise Systems
   c. Concentration III – IT Applications Management

6. Management (MGMT)
   b. Concentration II – Small Business and Entrepreneurship
   c. Concentration III – Organizational Leadership

7. Marketing (MKTG)
   a. Concentration I – Marketing Management
   b. Concentration II – Retail Marketing

8. Transportation (TRNS)

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 GPA on a 4.00 scale in each pre-business core course, as well as 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.

<table>
<thead>
<tr>
<th>A. University Core Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition (two courses)**</td>
<td>6</td>
</tr>
<tr>
<td>Finite Mathematics**</td>
<td>3</td>
</tr>
<tr>
<td>American History or Government</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science (two courses with labs)</td>
<td>8</td>
</tr>
<tr>
<td>Social Science (three courses)</td>
<td>9</td>
</tr>
<tr>
<td>Fine Arts &amp; Humanities (two courses)</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Additional Requirements for Business Students</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Communication**</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Calculus**</td>
<td>3</td>
</tr>
<tr>
<td>Business Social Science (one of the following)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2003 General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 3013 Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 3023 Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 3103 Cognitive Psychology</td>
<td></td>
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<tr>
<td>PSYC 4063 Psychology of Personality</td>
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<tr>
<td>PSYC 4073 Psychology of Learning</td>
<td></td>
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<tr>
<td>PSYC 4123 Perception</td>
<td></td>
</tr>
<tr>
<td>SOCI 2013 General Sociology</td>
<td></td>
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<tr>
<td>SOCI 3223 Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOCI 3003 Social Data and Analysis</td>
<td></td>
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<tr>
<td>SOCI 4063 Organizations in Society</td>
<td></td>
</tr>
<tr>
<td>PLSC 2003 American National Government</td>
<td></td>
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<tr>
<td>PLSC 3103 Public Administration</td>
<td></td>
</tr>
<tr>
<td>PLSC 3243 The Judicial Process</td>
<td></td>
</tr>
<tr>
<td>PLSC 3803 International Organization</td>
<td></td>
</tr>
<tr>
<td>PLSC/SOCI 4053 Political Sociology</td>
<td></td>
</tr>
</tbody>
</table>

C. Business Core Courses

| Lower-Division Requirements                       | 27   |
| WCOB 1012 Legal Environment of Business**        | 2    |
| WCOB 1023 Business Foundations**                 | 3    |
| WCOB 1035 Data Analysis and Interpretation**     | 3    |
| ECON 2013 Principles of Macroeconomics**         | 3    |
| ECON 2023 Principles of Microeconomics**         | 3    |
| WCOB 2013 Markets and Consumers**                | 3    |
| WCOB 2023 Prod. and Delivery of Goods and Services** | 3   |
| WCOB 2033 Acquiring and Managing Human Capital** | 3    |
| WCOB 2043 Acquiring and Managing Financial Resources** | 3   |

Total Required for B.S.B.A. Degree: 126

D. Major Requirements: 24

E. Business Electives: 15

F. General Education Electives: 16

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.

**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**

<table>
<thead>
<tr>
<th>A. University Core Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>See description and listing of the university core for the B.S.B.A. degree.</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Additional Requirements for Business Students</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Communication**</td>
<td>9</td>
</tr>
<tr>
<td>Survey of Calculus**</td>
<td>3</td>
</tr>
<tr>
<td>Business Social Science (one of the following)</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 2003 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3013 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3023 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 3103 Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4063 Psychology of Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4073 Psychology of Learning</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 4123 Perception</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 2013 General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 3223 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 3303 Social Data and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 4063 Organizations in Society</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 2003 American National Government</td>
<td>3</td>
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<tr>
<td>PLSC 3103 Public Administration</td>
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<tr>
<td>PLSC 3243 The Judicial Process</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 3803 International Organization</td>
<td>3</td>
</tr>
<tr>
<td>PLSC/SOCI 4053 Political Sociology</td>
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</table>

<table>
<thead>
<tr>
<th>C. Business Core Courses</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower-Division Requirements</td>
<td>33</td>
</tr>
<tr>
<td>WCOB 1120 Computer Competency Requirement**</td>
<td>1</td>
</tr>
<tr>
<td>WCOB 1111 Freshman Business Connections**</td>
<td>2</td>
</tr>
<tr>
<td>WCOB 1012 Legal Environment of Business**</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>
<tr>
<td>ECON 2013 Principles of Macroeconomics**</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2023 Principles of Microeconomics**</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers**</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2023 Prod. and Delivery of Goods and Services**</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital**</td>
<td>3</td>
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<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources**</td>
<td>6</td>
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<tr>
<td>Upper-Division Course</td>
<td>6</td>
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<tr>
<td>WCOB 3016 Business Strategy and Planning</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>D. International Business and Collateral Course Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Business Requirements</td>
<td>36</td>
</tr>
<tr>
<td>International Business Requirements</td>
<td>15</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>
</tbody>
</table>

Select 9 hours from the following:
- FINN 3703 International Finance
- MGMT 4583 International Mgmt.
- MKTG 4633 Global Marketing
- TLOG 4643 International Transportation and Logistics

(Other courses may fulfill this requirement if approved by the department chair)

<table>
<thead>
<tr>
<th>E. Business Concentration</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>21</td>
</tr>
<tr>
<td>ACCT 3533 Accounting Technology</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3613 Managerial Uses of Accounting Information</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3723 Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 3753 Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>Plus three hour JR/SR accounting course</td>
<td>3</td>
</tr>
<tr>
<td>Plus six hours JR/SR interdisciplinary electives</td>
<td>6</td>
</tr>
<tr>
<td>Business Economics</td>
<td>21</td>
</tr>
<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 4333 Economics of Organizations</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4743 Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior ECON</td>
<td>3</td>
</tr>
<tr>
<td>Plus six hours JR/SR interdisciplinary electives</td>
<td>6</td>
</tr>
<tr>
<td>Information Systems</td>
<td>21</td>
</tr>
<tr>
<td>ISYS 2263 Intro. to Information Systems Development</td>
<td>3</td>
</tr>
<tr>
<td>ISYS 3293 Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>ISYS 3393 Business Application Development in the Visual Basic Environment</td>
<td>3</td>
</tr>
<tr>
<td>ISYS 4283 Centralized Data Systems</td>
<td>3</td>
</tr>
<tr>
<td>Plus three hour JR/SR information systems course</td>
<td>3</td>
</tr>
<tr>
<td>Plus six hours JR/SR interdisciplinary electives</td>
<td>6</td>
</tr>
<tr>
<td>Finance</td>
<td>21</td>
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<tr>
<td>FINN 3503 Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FINN 3703 International Finance</td>
<td>3</td>
</tr>
<tr>
<td>FINN 3603 Principles of Investments, or</td>
<td>3</td>
</tr>
<tr>
<td>FINN 3603 Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FINN 4233 Advanced Corporate Finance, or</td>
<td>3</td>
</tr>
<tr>
<td>FINN 4133 Advanced Investments</td>
<td>3</td>
</tr>
<tr>
<td>Plus three hour JR/SR finance course</td>
<td>3</td>
</tr>
<tr>
<td>Plus six hours JR/SR interdisciplinary electives</td>
<td>6</td>
</tr>
<tr>
<td>General Business</td>
<td>21</td>
</tr>
<tr>
<td>Fifteen hours of 3000/4000-level courses in Walton College; no more than nine hours in a single academic area</td>
<td>15</td>
</tr>
<tr>
<td>Plus six hours JR/SR interdisciplinary electives</td>
<td>6</td>
</tr>
<tr>
<td>Management</td>
<td>21</td>
</tr>
<tr>
<td>MGMT 4243 Ethics and Corporate Responsibility</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4583 International Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>Plus nine hours JR/SR management courses</td>
<td>9</td>
</tr>
<tr>
<td>Plus six hours JR/SR interdisciplinary electives</td>
<td>6</td>
</tr>
<tr>
<td>Marketing</td>
<td>21</td>
</tr>
<tr>
<td>MKTG 3633 Marketing Research</td>
<td>3</td>
</tr>
</tbody>
</table>
MKTG 3553 Consumer Behavior 3
MKTG 4853 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

E. 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 — 2003 and 2013 level — 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 — 1003 and 2003 level — in addition to the 12 hours of language specified above. No degree credit will be given for elementary language courses.

Students may select one of the following language tracks:
- Arabic – ARAB 2013 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 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
- 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 weeks 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 a foreign language numbered 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 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**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
<td><strong>Year 1</strong></td>
<td><strong>Year 2</strong></td>
<td><strong>Year 3</strong></td>
<td><strong>Year 4</strong></td>
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<tr>
<td></td>
<td>ENGL 1013 Composition I** – University Core</td>
<td>3</td>
<td>WCOB 3016 Business Strategy and Planning</td>
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<tr>
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<td>MATH 2053 Finite Math – University Core</td>
<td>3</td>
<td>WCOB 3016 Business Strategy and Planning</td>
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<td>COMM 1313 Fundamentals of Communication</td>
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<td>WCOB 3016 Business Strategy and Planning</td>
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<td></td>
<td>WCOB 1111 Freshman Business Connections</td>
<td>1</td>
<td>ECON 3133 Macroeconomic Theory</td>
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<td></td>
<td>WCOB 1012 Legal Environment of Business *</td>
<td>2</td>
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<td><strong>Spring Semester</strong></td>
<td><strong>Year 1</strong></td>
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<td><strong>Year 3</strong></td>
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<tr>
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<td>ENGL 1023 Composition II ** – University Core</td>
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<td>WCOB 1023 Business Foundations</td>
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<td>WCOB 3016 Business Strategy and Planning</td>
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<td>WCOB 1033 Data Analysis and Interpretation</td>
<td>3</td>
<td>WCOB 3016 Business Strategy and Planning</td>
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<td>ECON 2023 Microeconomics – University Core</td>
<td>3</td>
<td>WCOB 3016 Business Strategy and Planning</td>
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<td>Intermediate Foreign Language II (2013-level)</td>
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<td><strong>Fall Semester</strong></td>
<td><strong>Year 2</strong></td>
<td><strong>Year 3</strong></td>
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<td>MATH 2043 Survey of Calculus **</td>
<td>3</td>
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<td>ECON 2013 Macroeconomics ** – University Core</td>
<td>3</td>
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<td>Select TWO of the following:</td>
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<td>WCOB 3016 Business Strategy and Planning</td>
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<td></td>
<td>WCOB 2013 Markets and Consumers</td>
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<td></td>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
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<td>WCOB 2043 Acquiring and Managing Human Capital</td>
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<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
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<td>WCOB 3016 Business Strategy and Planning</td>
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<td>U.S. History or Political Science – University Core</td>
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<td>18 Semester Hours</td>
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<td><strong>Year 3</strong></td>
<td><strong>Year 4</strong></td>
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<tr>
<td></td>
<td>Fine Art/Humanities – University Core</td>
<td>3</td>
<td>ECON 4333 Economics of Organizations</td>
<td>3</td>
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<tr>
<td></td>
<td>Natural Science – University Core</td>
<td>4</td>
<td>ECON 4643 International Macroeconomics and Finance</td>
<td>3</td>
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<tr>
<td></td>
<td>Upper division foreign language course</td>
<td>3</td>
<td>ECON 4643 International Macroeconomics and Finance</td>
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<td>Select TWO of the following not completed in previous semester:</td>
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<td>WCOB 3016 Business Strategy and Planning</td>
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<td>WCOB 2013 Markets and Consumers</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>WCOB 3016 Business Strategy and Planning</td>
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<td>16 Semester Hours</td>
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<td>ALL pre-business requirements should be met by end of term</td>
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**B.S.I.B. Business Economics Final Four Semester**

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<td><strong>Fall Semester</strong></td>
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<td><strong>Year 4</strong></td>
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<tr>
<td></td>
<td>WCOB 3016 Business Strategy and Planning</td>
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<td>Business Social Science</td>
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<td>ECON 3133 Macroeconomic Theory</td>
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<td>International Business and Collateral Elective</td>
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<td>Area Studies Course</td>
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<td><strong>Spring Semester</strong></td>
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<td>ECON 4743 Introduction to Econometrics</td>
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<td>ECON 4633 International Trade</td>
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<td>Area Studies Course – see page 211 in catalog</td>
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<td>Social Science – University Core</td>
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<td><strong>Fall Semester</strong></td>
<td><strong>Year 4</strong></td>
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<td>ECON 4333 Economics of Organizations</td>
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<td>ECON 4643 International Macroeconomics and Finance</td>
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<td>International Business and Collateral Elective</td>
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<td>Area Studies Course</td>
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<tr>
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<td>Natural Science – University Core</td>
<td>4</td>
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<td>16 Semester Hours</td>
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<td><strong>Spring Semester</strong></td>
<td><strong>Year 4</strong></td>
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<td>Junior Senior ECON elective</td>
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<td>Area Studies Course</td>
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<tr>
<td></td>
<td>International Business and Collateral Elective</td>
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<tr>
<td></td>
<td>Junior Senior Business Electives</td>
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<tr>
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<td>15 Semester Hours</td>
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| **B.S.I.B. Finance Final Four Semesters**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Year 3</th>
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<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
<td><strong>Year 3</strong></td>
<td><strong>Year 4</strong></td>
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<tr>
<td></td>
<td>WCOB 3016 Business Strategy and Planning</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Business Social Science</td>
<td>3</td>
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<tr>
<td></td>
<td>FINN 3053 Financial Markets and Institutions</td>
<td>3</td>
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<tr>
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<td>FINN 3013 Financial Analysis</td>
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<td>15 Semester Hours</td>
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<tr>
<td><strong>Spring Semester</strong></td>
<td><strong>Year 3</strong></td>
<td><strong>Year 4</strong></td>
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<tr>
<td></td>
<td>FINN 3063 Principles of Investments or FINN 3603 Corporate Finance</td>
<td>3</td>
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<td>FINN 3703 International Finance</td>
<td>3</td>
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<tr>
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<td>ECON 4633 International Trade Policy</td>
<td>3</td>
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<td></td>
<td>Area Studies Course – see page 211 in catalog</td>
<td>3</td>
</tr>
<tr>
<td>Semester</td>
<td>Course Details</td>
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</tbody>
</table>
| **Fall Semester Year 4** | 3 Social Science – University Core  
15 Semester Hours |
| | 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>
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<tr>
<th>Semester</th>
<th>Course Details</th>
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</table>
| **Fall Semester Year 3** | 6 WCOB 3016 Business Strategy and Planning  
3 Business Social Science  
3 Junior Senior Business Elective  
3 International Business and Collateral Elective  
15 Semester Hours |
| **Spring Semester Year 3** | 6 Junior Senior Business Electives  
3 ECON 4633 International Trade  
3 Area Studies Course – see page 211 in catalog  
3 Social Science – University Core  
15 Semester Hours |
| **Fall Semester Year 4** | 3 Junior Senior Business Elective  
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 Junior Senior Business 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. Information Systems**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Details</th>
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</table>
| **Fall Semester Year 3** | 6 WCOB 3016 Business Strategy and Planning  
3 Business Social Science  
3 ISYS 2263 Introduction to Information Systems  
3 International Business and Collateral Elective  
15 Semester Hours |
| **Spring Semester Year 3** | 3 ISYS 3293 System Analysis and Design  
3 ISYS 3393 Business Application Development Fundamentals  
3 ECON 4633 International Trade  
3 Area Studies Course – see page 211 in catalog |

**B.S.I.B. Marketing Final Four Semesters**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Details</th>
</tr>
</thead>
</table>
| **Fall Semester Year 3** | 6 WCOB 3016 Business Strategy and Planning  
3 Business Social Science  
3 MKTG 3433 Introduction to Marketing Strategy (Jr Sr Business elective)  
3 International Business and Collateral Elective  
15 Semester Hours |
| **Spring Semester Year 3** | 3 MKTG 3633 Marketing Research  
3 MKTG 3553 Consumer Behavior  
3 ECON 4633 International Trade  
3 Area Studies Course – see page 211 in catalog |
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 upper level minor requirements must be taken in residence. All students seeking a business minor are required to complete the Walton College computer competency requirement (WCOB 1120) and the following courses:

**Concentration 1 – General Business**
- ECON 2143 Basic Economics Theory and Practice
- ACCT 3613 Managerial Accounting
- WCOB 3016 Business Strategy and Planning
- WCOB 2043 Acquiring and Managing Financial Resources
- WCOB 2033 Acquiring and Managing Human Capital
- WCOB 2023 Production and Delivery of Goods and Services
- WCOB 2013 Markets and Consumers
- WCOB 4213 ERP Fundamentals
- Plus any other 3000- or 4000-level Walton College course (at least 6 hours must be at the 3000 or 4000 level).
- WCOB 1023 Business Foundations
- WCOB 1033 Data Analysis and Interpretation or equivalent
- ECON 4633 International Macroeconomics and Finance
- WCOB 1012 Legal Environment of Business
- Plus any other 3000- or 4000-level Walton College course (at least 6 hours must be at the 3000 or 4000 level).

**Concentration 2 – Accounting**
- ACCT 3533 Accounting Technology
- ACCT 3703 Intermediate Accounting I
- ECON 4333 Economics of Organizations
- Plus an additional six hours selected from the following:
  - ACCT 3533 Accounting Technology
  - ACCT 3703 Intermediate Accounting I
  - ACCT 3843 Fundamentals of Taxation
  - ECON 4333 Economics of Organizations

**Concentration 3 – Business Economics**
- ACCT 3723 Intermediate Accounting I
- ECON 4633 International Macroeconomics and Finance
- WCOB 2043 Acquiring and Managing Financial Resources
- Plus any other 3000- or 4000-level Walton College course in a business economics concentration.

**Concentration 4 – Enterprise Resource Planning**
- ACCT 3613 Managerial Uses of Accounting Info
- ISYS 4233 Seminar in ERP Development
- WCOB 2013 Markets and Consumers
- WCOB 2043 Acquiring and Managing Financial Resources
- Plus any other 3000- or 4000-level Walton College course in an enterprise resource planning concentration.
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, 401 WCOB, 479-575-4051
• Walter B. Cole Chair in Accounting and Professor Bouwman
• 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
• Doris M. Cook Chair in Accounting and Associate Professor Myers (L.)
• Professor Norwood
• Nolan E. Williams Lecturer and Associate Professor Peters
• Assistant Professor and BKD Lectureship in Accounting Henderson
• Assistant Professor Sanchez (J.M.)
• Clinical Associate Professor Leflar
• Instructors Greenhaw, Horton, Sanchez (D.), Shook, Weitzel

The mission of the department of accounting is to cultivate an environment of educational excellence. We do so by pursuing the following endeavors:
• Providing a learning environment in which students interact with others to identify and solve accounting and business problems.
• Developing and disseminating knowledge that has the potential for significant impact on accounting, business, and education.
• Interacting with the accounting profession, the business and academic communities, and the community at large.

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

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
  - ACCT 3533 Accounting Technology 3
  - ACCT 3613 Managerial Uses of Accounting Info 3
  - ACCT 3723 Intermediate Accounting I 3
  - ACCT 3753 Intermediate Accounting II 3
  - ACCT 3843 Fundamentals of Taxation 3
  - ACCT 4673 Product, Project and Service Costing 3
  - ACCT 4963 Operational Auditing 3
  - Choose a total of three hours from any of the following: 3
    - ACCT 310V Spring Accounting Internship
    - ACCT 410V Special Topics
    - ACCT 4003H Honors Accounting Colloquium
    - ISYS 2263 Introduction to Information Systems Development
    - WCOB 4213 ERP Fundamentals
    - Walton College Study Abroad Course

Junior- senior-level electives within Walton College 15

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 Walton College Requirements 60
- Total Degree Requirements 126

NOTE: Selection of electives should be made in consultation with academic advisers. Students planning on taking professional examinations should ascertain course requirements by examining authorities. Successful completion of a Master of Accountancy Degree from the University of Arkansas will qualify a student to take the CPA examination in Arkansas. B.S.B.A. graduates would need additional accounting hours and other courses amounting to a total of 150 semester hours to sit for the CPA exam in Arkansas.

Accounting 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.

In addition to the coursework below, students must complete the Advanced Composition Requirement or gain exemption. 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.

Accounting Eight-Semester Degree Plan

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 Composition I ** – University Core</td>
</tr>
<tr>
<td>3 MATH 2053 Finite Math – University Core</td>
</tr>
<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td>1 WCOB 1111 Freshman Business Connections</td>
</tr>
<tr>
<td>2 WCOB 1012 Legal Environment of Business *</td>
</tr>
<tr>
<td>0 WCOB 1120 Computer Competency Requirement</td>
</tr>
<tr>
<td>3 U.S. History or Political Science – University Core</td>
</tr>
<tr>
<td>15 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 ** - University Core</td>
</tr>
<tr>
<td>3 WCOB 1023 Business Foundations</td>
</tr>
<tr>
<td>3 WCOB 1033 Data Analysis and Interpretation</td>
</tr>
<tr>
<td>3 ECON 2023 Microeconomics – University Core</td>
</tr>
<tr>
<td>4 Natural Science – University Core</td>
</tr>
<tr>
<td>16 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 MATH 2043 Survey of Calculus **</td>
</tr>
<tr>
<td>3 ECON 2013 Macroeconomics ** - University Core</td>
</tr>
<tr>
<td>6 Select TWO of the following:</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
</tr>
<tr>
<td>WCOB 2023 Production and Delivery of Goods and Services</td>
</tr>
<tr>
<td>WCOB 2033 Acquiring and Managing Human Capital</td>
</tr>
<tr>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
</tr>
<tr>
<td>3 Social Science – University Core</td>
</tr>
<tr>
<td>3 Fine Arts/Humanities – University Core</td>
</tr>
<tr>
<td>18 Semester Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Fine Arts/Humanities – University Core</td>
</tr>
<tr>
<td>4 Natural Science – University Core</td>
</tr>
<tr>
<td>3 Business Social Science</td>
</tr>
<tr>
<td>6 Select TWO of the following not completed in previous semester:</td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
</tr>
</tbody>
</table>
### 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 3533 Accounting Technology
- ACCT 3613 Managerial Uses of Accounting Information
- ACCT 3723 Intermediate Accounting I
- ACCT 3753 Intermediate Accounting II
- ACCT 3843 Fundamentals of Taxation

Students who desire to earn an Accounting 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. All upper level minor requirements must be taken in residence.

### Course Requirements

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester Year 3</td>
<td>ACCT 3723 Intermediate Accounting I&lt;br&gt;ACCT 3613 Managerial Uses of Accounting&lt;br&gt;General Education Elective&lt;br&gt;WCOB 3016 Business Strategy and Planning&lt;br&gt;General Education Elective&lt;br&gt;16 Semester Hours</td>
</tr>
<tr>
<td>Spring Semester Year 3</td>
<td>ACCT 3553 Accounting Technology&lt;br&gt;ACCT 3753 Intermediate Accounting II&lt;br&gt;ACCT 3843 Fundamentals of Taxation&lt;br&gt;General Education Elective&lt;br&gt;Spring Seminar&lt;br&gt;ENGL 2003 or ENGL 2013 or General Education Elective&lt;br&gt;IF Advanced Composition Requirement has already been met&lt;br&gt;15 Semester hours</td>
</tr>
<tr>
<td>Fall Semester Year 4</td>
<td>Select ONE of the following: ACCT 4673 Production Project and Service Costing&lt;br&gt;ACCT 4963 Operational Auditing&lt;br&gt;General Education Elective&lt;br&gt;Junior Senior Business Electives&lt;br&gt;General Education Electives&lt;br&gt;15 Semester hours</td>
</tr>
<tr>
<td>Spring Semester Year 4</td>
<td>Choose a total of three credit hours from any of the courses below: ACCT 310V Accounting Internship&lt;br&gt;ACCT 410V Special Topics&lt;br&gt;ACCT 4003H Honors Accounting Colloquium&lt;br&gt;ACCT 4213 ERP Fundamentals&lt;br&gt;General Education Electives&lt;br&gt;WCOB Study Abroad&lt;br&gt;General Education Electives&lt;br&gt;15 Semester hours</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
### International Economics and Business Concentration

The major in International 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 Walton College of Business 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.

#### Course Requirements in the concentration

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Hours</th>
<th>Elective Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3033 Microeconomic Theory</td>
<td>3</td>
<td>Any upper division course for EUST</td>
</tr>
<tr>
<td>ECON 3133 Macroeconomic Theory</td>
<td>3</td>
<td>Any upper division course for EUST</td>
</tr>
<tr>
<td>ECON 4633 International Trade</td>
<td>3</td>
<td>Any upper division course for EUST</td>
</tr>
<tr>
<td>ECON 4643 International Macroeconomics and Finance</td>
<td>3</td>
<td>Any upper division course for EUST</td>
</tr>
<tr>
<td>ECON Electives or Collateral Courses</td>
<td>6</td>
<td>Select two classes (six hours) from the following: FINN 3703 International Finance, MGMT 4583 International Management, MKTG 4633 Global Marketing, TLOG 4643 International Transportation and Logistics, ECON 3853 Emerging Markets, ECON 3843 Economic Development, World Bank, and Multilateral Finance, ECON 3933 The Japanese Economic System. Other courses may fulfill this requirement as approved by the economics department chair</td>
</tr>
<tr>
<td>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)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

#### Junior-senior-level electives within Walton College

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 Degree Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Core</td>
<td>35</td>
</tr>
<tr>
<td>Additional University Core</td>
<td>9</td>
</tr>
<tr>
<td>Walton College Core Requirements (See page 209)</td>
<td>33</td>
</tr>
<tr>
<td>Course Requirements in the concentration</td>
<td>24</td>
</tr>
<tr>
<td>ECON Electives or Collateral Courses</td>
<td>6</td>
</tr>
<tr>
<td>Collateral Course</td>
<td>3</td>
</tr>
<tr>
<td>Total Walton College Requirements</td>
<td>60</td>
</tr>
<tr>
<td>Total Degree Requirements</td>
<td>126</td>
</tr>
</tbody>
</table>
### Economics Eight-Semester Degree Program

Students wishing to follow the eight-semster 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-semster 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>Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester Year 1</strong></td>
<td><strong>16 Semester Hours</strong></td>
</tr>
<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></td>
</tr>
<tr>
<td><strong>Spring Semester Year 1</strong></td>
<td><strong>15 Semester Hours</strong></td>
</tr>
<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 1013 Principles of Accounting and Internal Control</td>
<td></td>
</tr>
<tr>
<td>3 ECON 2023 Microeconomics – University Core</td>
<td></td>
</tr>
<tr>
<td><strong>Fall Semester Year 2</strong></td>
<td><strong>16 Semester Hours</strong></td>
</tr>
<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>
<td>3 Fine Art/Humanities – University Core</td>
<td></td>
</tr>
<tr>
<td><strong>Spring Semester Year 2</strong></td>
<td><strong>18 Semester Hours</strong></td>
</tr>
<tr>
<td>3 Fine Art/Humanities – University Core</td>
<td></td>
</tr>
<tr>
<td>4 Natural Science – University Core</td>
<td></td>
</tr>
<tr>
<td>3 Business Social Science</td>
<td></td>
</tr>
<tr>
<td>6 Select TWO of the following not completed in previous semester:</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><strong>Fall Semester Year 3</strong></td>
<td><strong>15 Semester Hours</strong></td>
</tr>
<tr>
<td>3 ECON 3033 Microeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>3 ECON elective</td>
<td></td>
</tr>
<tr>
<td>6 WCOB 3016 Business Strategy and Planning</td>
<td></td>
</tr>
<tr>
<td>3 Junior Senior Business Elective</td>
<td></td>
</tr>
<tr>
<td><strong>Spring Semester Year 3</strong></td>
<td><strong>15 Semester Hours</strong></td>
</tr>
<tr>
<td>3 ECON 3133 Macroeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>3 ECON 4743 Introduction to Econometrics or ECON 4753 Forecasting</td>
<td></td>
</tr>
<tr>
<td>6 Junior Senior Business Electives</td>
<td></td>
</tr>
</tbody>
</table>

#### International Economics and Business Concentration

<table>
<thead>
<tr>
<th>Semester Year 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester Year 4</strong></td>
<td><strong>16 Semester hours</strong></td>
</tr>
<tr>
<td>3 ENGL 2003 OR ENGL 2013 OR General Education Elective IF Advanced Composition Requirement has already been met ***</td>
<td></td>
</tr>
<tr>
<td>3 Intermediate Foreign Language I (2003 level)</td>
<td></td>
</tr>
<tr>
<td>6 General Education Electives</td>
<td></td>
</tr>
<tr>
<td>6 Junior Senior Business Electives</td>
<td></td>
</tr>
<tr>
<td><strong>Spring Semester Year 4</strong></td>
<td><strong>126 Total hours</strong></td>
</tr>
<tr>
<td>3 ECON elective</td>
<td></td>
</tr>
<tr>
<td>6 General Education Electives</td>
<td></td>
</tr>
<tr>
<td>6 Junior Senior Business Electives</td>
<td></td>
</tr>
<tr>
<td>15 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
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 coursework 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. All upper level minor requirements must be taken in residence.

**FINANCE (FINN)**

Wayne Y. Lee  
Department Chair, 302 WCOB, 479-575-4505  
- J.W. Bellamy Chair in Banking and Professor Dominick  
- Garrison Chair in Finance and Alice L. Walton Chair in Finance and Professor Lee  
- Dillard Department Store Chair in Corporate Finance and Professor Millar  
- Harold A. Dulan Finance Chair in Capital Formation and Robert E. Kennedy Chair in Finance and Professor Liu  
- Clete and Tammy Brewer Professorship in Business and Associate Professor Rennie

- Arkansas Bankers Association Chair in Banking and Associate Professor Yeager  
- Associate Professors Heath, Jandik  
- Assistant Professor Malakhov  
- Instructors Driver, Risk

The academic mission of the department of finance is to provide an educational experience that:
- stimulates student learning through open dialogue and informative discussion both inside and outside the classroom;
- actively engages students in their own learning through problem-based casework, participation in real-world business activities, and internships in the financial community; and
- prepares students to successfully meet the rigors of the challenging and diverse career opportunities in finance.

**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 Major Requirements with Concentrations**

Complete the requirements for a B.S.B.A. degree as listed on page 209.

**Total General Education**

33

**Walton College Core Requirements** (See page 209)

24

**Course Requirements in the concentration**

- FINN 3013 Financial Analysis and Valuation  
- FINN 3053 Financial Markets and Institutions  
- FINN 3703 International Finance

**Concentration I: Banking**

- FINN 3103 Financial Modeling  
- FINN 3133 Commercial Banking  
- FINN 4313 Advanced Commercial Banking Finance or interdisciplinary electives

**Concentration II: Financial Management/Investment**

- FINN 3103 Financial Modeling  
- Plus one of the following options (six hours):

  **Option 1:** Any two of the four courses listed below  
  - FINN 3063 Investments  
  - FINN 3603 Corporate Finance  
  - FINN 4133 Advanced Investments  
  - FINN 4233 Advanced Corporate Finance

  **Option 2:**
  - FINN 4143 Portfolio Management I  
  - FINN 4153 Portfolio Management II

  **Option 3:**
  - FINN 4163 Fixed Income Securities I  
  - FINN 4173 Fixed Income Securities II
Finance or interdisciplinary electives 6

**Concentration III: Insurance**
- FINN 3623 Risk Management 3
- FINN 4733 Life/Health Insurance I 3
- FINN 4833 Property/Casualty Insurance I 3
- Finance or interdisciplinary electives 6

**Concentration IV: Real Estate**
- FINN 3933 Real Estate Principles 3
- FINN 4413 Real Estate Investment and Appraisal 3
- FINN 4433 Real Estate Finance 3
- Finance or interdisciplinary electives 6

**Concentration V: Personal Financial Management**
- FINN 3003 Personal Financial Management 3
- FINN 3063 Investments 3
- FINN 3623 Risk Management 3
- FINN 4013 Seminar in Financial Planning 3
- FINN 4733 Life and Health Insurance I 3

The following courses are strongly recommended for the Personal Financial Management concentration and may be used toward the minor/senior business elective requirements:
- ACCT 3843 Fundamentals of Taxation 3
- ACCT 5883 Individual Tax Planning 3

The highly recommended courses listed below satisfy the six-credit-hour interdisciplinary requirement in the major:

**Accounting**
- ACCT 3723 Intermediate Accounting I 3
- ACCT 3753 Intermediate Accounting II 3

**Economics**
- ECON 3733 Experimental Economics 3

**Information Systems**
- ISYS 2263 Intro to Information Systems Development 3
- ISYS 3373 End User Computing 3

**Management**
- MGMT 4433 Small Enterprise Management 3
- MGMT 3933 Entrepreneurship and New Venture Development 3

**Marketing**
- MKTG 3633 Marketing Research 3
- MKTG 3553 Consumer Behavior 3

**Transportation and Logistics**
- TLOG 3613 Business Logistics 3
- TLOG 3623 Purchasing and Inventory Systems 3

**Junior-senior-level electives within Walton College**
- Maximum of 27 hours of FINN 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 15
- Total Degree Requirements 126

**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 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**

**Fall Semester Year 1**
- ENGL 1013 Composition I **- University Core
- MATH 2053 Survey of Calculus **- University Core
- COMM 1313 Fundamentals of Communication
- WCOB 1111 Freshman Business Connections
- WCOB 1012 Legal Environment of Business
- WCOB 1120 Computer Competency Requirement
- U.S. History or Political Science – University Core
- 15 Semester Hours

**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
- Natural Science – University Core
- 16 Semester Hours

**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 2033 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
- Social Science – University Core
- Fine Arts/Humanities – University Core
- 18 Semester Hours

**Spring Semester Year 2**
- Fine Arts/Humanities – University Core
- Natural Science – University Core
- Business Social Science
- Select TWO of the following not completed in previous semester:
  - WCOB 2013 Markets and Consumers
  - WCOB 2033 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resource
- 16 Semester Hours

**Fall Semester Year 3**
- FINN 3013 Financial Analysis and Valuation
- FINN 3103 Financial Modeling
- WCOB 3016 Business Strategy and Planning
- General Education Electives
- 16 Semester hours

**Spring Semester Year 3**
- FINN 3053 Financial Markets and Institutions
- FINN 3133 Commercial Banking
- Junior/Senior Business Electives
- ENGL 2013 Composition I ** or ENGL 2013 or General Education Elective I
- 15 Semester hours

**Fall Semester Year 4**
- FINN 3703 International Finance
- Finance or Interdisciplinary Electives
- 3
### Financial Management and Investment 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
- 16 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
- 18 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 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

ALL pre-business requirements should be met by end of term

#### 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
- 15 Semester hours

#### Spring Semester Year 3
- 3 FINN 3053 Financial Markets and Institutions
- 6 Junior Senior Business Electives
- 3 Finance or Interdisciplinary Elective
- 15 Semester hours

### Insurance 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
- 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 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
- 16 Semester Hours

ALL pre-business requirements should be met by end of term

#### 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
- 16 Semester hours
Sam M. Walton College of Business

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 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  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
16 Semester Hours

- ALL pre-business requirements should be met by end of term

**Fall Semester Year 3**

3  ACCT 3723 Intermediate Accounting I (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

**Spring Semester Year 3**

3  ACCT 3843 Fundamentals of Taxation (Jr Sr Business Elective)
3  FINN 3063 Principles of Investments
3  FINN 3623 Risk Management
3  General Education Elective
3  ENGL 2003 or ENGL 2013 or General Education Elective II Advanced
Composition Requirement has already been met ***
15 Semester Hours

**Fall Semester Year 4**

3  FINN 3703 International Finance
3  FINN 4733 Life and Health Insurance
6  Junior Senior Business Electives
4  General Education Electives
16 Semester Hours

**Spring Semester Year 4**

3  FINN 3053 Financial Markets and Institutions
3  FINN 4013 Seminar in Financial Planning
3  Junior Senior Business Elective
6  General Education Electives
15 Semester Hours

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
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  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
16 Semester Hours

3  ACCT 3723 Intermediate Accounting I (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

3  ACCT 3843 Fundamentals of Taxation (Jr Sr Business Elective)
3  FINN 3063 Principles of Investments
3  FINN 3623 Risk Management
3  General Education Elective
3  ENGL 2003 or ENGL 2013 or General Education Elective II Advanced
Composition Requirement has already been met ***
15 Semester Hours

3  FINN 3703 International Finance
3  FINN 4733 Life and Health Insurance
6  Junior Senior Business Electives
4  General Education Electives
16 Semester Hours

3  FINN 3053 Financial Markets and Institutions
3  FINN 4013 Seminar in Financial Planning
3  Junior Senior Business Elective
6  General Education Electives
15 Semester Hours

3  FINN 3053 Financial Markets and Institutions
3  FINN 4013 Seminar in Financial Planning
3  Junior Senior Business Elective
6  General Education Electives
15 Semester Hours
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:

1. Banking/Financial Management/Investment  
   FI
   FINN 3013 Financial Analysis and Valuation  
   Plus two (six hours) of the following courses  
   FINN 3053 Financial Markets and Institutions  
   FINN 3103 Financial Modeling  
   FINN 3703 International Finance  
   Plus two (six hours) of the following courses  
   FINN 3063 Investments  
   FINN 3133 Commercial Banking  
   FINN 3603 Corporate Finance  
   FINN 4133 Advanced Investment  

2. Insurance/Real Estate  
   Choose any five classes (fifteen hours) of the following courses  
   FINN 3003 Personal Financial Management  
   FINN 3623 Risk Management  
   FINN 4733 Life and Health Insurance I  
   FINN 4833 Property and Casualty Insurance I  
   FINN 3933 Real Estate Principles  
   FINN 4413 Real Estate Investment and Appraisal  
   FINN 4433 Real Estate Finance  

**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.

### INFORMATION SYSTEMS (ISYS)

Moez Limayem  
Department Chair, 204 WCOB, 479-575-4500  
• David D. Glass Chair in Information Systems and Distinguished Professor Davis (F)  
• 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.)  
• Walton Professorship in Information Systems and Professor Limayem  
• Associate Professors Akyosi, O’Leary-Kelly (S.)  
• Assistant Professors Maruping, Roberts, Setia  
• Instructors Bristow, McDaniel  
• Executives in Residence Davis (F.), 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 2003/2001L) is recommended as a general education elective.

**Total General Education** 60

**Walton College Core Requirements** (See page 209) 33

**Course Requirements in the Major for All Concentrations** 18

- ISYS 2263 Intro. to IS Development
- ISYS 3293 System Analysis and Design
- ISYS 3393 Business Applications in Visual Basic
- ISYS 4283 Centralized Data Systems
- ISYS 4363 Business Application Systems Development
- ISYS 4213 ERP Fundamentals

**Total Walton College Requirements** 60

**Total Degree Requirements** 126

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**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 wishing to follow the eight-semester degree plan for 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

---

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<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>3</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><strong>Total Semester hours</strong></td>
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</tr>
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### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>ENGL 1023 Composition II ** - University Core</td>
<td>3</td>
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<tr>
<td>WCOB 1023 Business Foundations</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 1033 Data Analysis and Interpretation</td>
<td>3</td>
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<tr>
<td>ECON 2023 Microeconomics – University Core Natural Science – University Core</td>
<td>4</td>
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<tr>
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**Fall Semester Year 2**

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<thead>
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<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MATH 2043 Survey of Calculus **</td>
<td>3</td>
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<tr>
<td>ECON 2013 Macroeconomics ** - University Core</td>
<td>3</td>
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<tr>
<td>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</td>
<td>6</td>
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<tr>
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<td><strong>16</strong></td>
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**Spring Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ISYS 2263 Intro. to Information Systems Development</td>
<td>3</td>
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<tr>
<td>Natural Science – University Core</td>
<td>4</td>
</tr>
<tr>
<td>ISYS 3293 System Analysis and Design</td>
<td>3</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>
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<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
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**Fall Semester Year 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ISYS 3293 Systems Analysis and Design</td>
<td>3</td>
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<tr>
<td>Junior Senior Business Electives</td>
<td>6</td>
</tr>
<tr>
<td>WCOB 3016 Business Strategy and Planning</td>
<td>3</td>
</tr>
<tr>
<td>Business Social Science</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
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</table>

**Spring Semester Year 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ISYS 3393 Business Application Dev. in the Visual Basic Environment</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 4213 ERP Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior Business Electives</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 2003 OR ENGL 2013 OR General Education Elective</td>
<td>3</td>
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<tr>
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**Fall Semester Year 4**

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<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ISYS 4283 Centralized Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 4233 ERP Configuration and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior Business Electives</td>
<td>3</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>
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<tbody>
<tr>
<td>ISYS 4233 Business Project Development</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 4233 ERP Development</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior Business Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

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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

**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
MANAGEMENT (MGMT)

Anne O'Leary-Kelly
Department Chair, 402 WCOB, 479-575-4566
• Charles C. Fichtner Chair in Management and Professor Ganster
• Raymond F. Orr Chair and Professor Gupta
• William R. and Capcia Howard Chair and Professor O'Leary-Kelly (A.)
• University Professor White
• Walton Professorship in Sustainability and Professor Johnson
• Sam M. Walton Leadership Chair and Professor Worrell
• Professor Deely
• Cecil and Gwendolyn Cupp Applied Professorship in Entrepreneurship and Associate Professor Reeves
• Associate Professor Anand, Ellstrand
• Assistant Professors Nag, Rosen
• Instructor Newman, Pullen

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

College Core Requirements

Courses Required

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
MGMT 4263 Organizational Change and Development
MGMT 3933 Entrepreneurship/New Venture
MGMT 4103 Special Topics
MGMT 4433 Small Enterprise Management
MGMT 4583 International Management
MGMT 4993 Entrepreneurship Practicum
Select up to three classes (nine hours) from the following courses:

ECON 3533 Labor Economics
ECON 4333 Managerial Economics
ACCT 3613 Managerial Uses of Accounting Information
ISYS 2263 Introduction to Information Systems
ISYS 3573 End User Computing
ISYS 4263 Information Technology Strategy
MKTG 3553 Consumer Behavior
MKTG 3633 Marketing Research
MKTG 4533 Marketing Management

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
MGMT 4103 Special Topics
MGMT 4433 Small Enterprise Management
MGMT 4583 International Management
MGMT 4943 Organizational Staffing
MGMT 4953 Organizational Rewards/Compensation
Select up to three classes (nine hours) from the following courses:
- ACCT 3613 Managerial Uses of Accounting
- ACCT 3723 Intermediate Accounting I
- ECON 3533 Labor Economics
- ECON 4333 Managerial Economics
- ECON 4643 International Macroeconomics and Finance
- ECON 4653 Global Competition and Strategy
- FINN 3603 Intermediate Financial Management
- FINN 3703 International Finance
- ISYS 2263 Introduction to Information Systems
- ISYS 4263 Information Technology Strategy
- MKTG 4933 Global Information Technology Management
- MKTG 4533 Marketing Management
- TLOG 3613 Business Logistics
- TLOG 4643 International Transportation and Logistics
- TLOG 4653 Transportation and Logistics Strategy

Concentration III: Small Business and Entrepreneurship

Required courses:
- MKTG 3933 Entrepreneurship/New Venture
- MKTG 4243 Ethics and Corporate Responsibility
- MKTG 4433 Small Enterprise Management

Select at least two classes (six hours) from the following courses:
- MKTG 4103 Special Topics
- MKTG 4253 Leadership
- MKTG 4263 Organizational Change and Development
- MKTG 4433 Small Enterprise Management
- MKTG 4583 International Management
- MKTG 4943 Organizational Staffing
- MKTG 4953 Organizational Rewards/Compensation

Select up to three classes (nine hours) from the following courses:
- ACCT 3613 Managerial Uses of Accounting
- ACCT 3723 Intermediate Accounting I
- ACCT 3843 Fundamentals of Taxation
- BLAW 3033 Commercial Law
- FINN 3053 Financial Markets and Institutions
- FINN 3623 Risk Management
- FINN 3933 Real Estate Principles
- ISYS 2263 Introduction to Information Systems
- MKTG 4233 Integrated Marketing Communications
- MKTG 4343 Selling and Sales Management
- MKTG 3553 Consumer Behavior
- MKTG 4633 Global Marketing
- MKTG 4433 Retail Strategies
- TLOG 3613 Business Logistics
- TLOG 3623 Purchasing and Inventory Systems
- TLOG 4653 Transportation and Logistics Strategy

Junior- senior-level electives within Walton College

Maximum of 27 hours of MGMT courses in department (core, major, elective). More than 27 hours allowed if the extra courses are part of interdisciplinary minor or collateral track.

Total College Requirements

Total Degree Requirements

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 **ITALIC** must be taken in the designated semester. Courses in **BOLD** 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

**Fall Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013</td>
<td>Composition I ** – University Core</td>
</tr>
<tr>
<td>MATH 2053</td>
<td>Finite Math – University Core</td>
</tr>
<tr>
<td>COMM 1313</td>
<td>Fundamentals of Communication</td>
</tr>
<tr>
<td>WCOB 1111</td>
<td>Freshman Business Connections</td>
</tr>
<tr>
<td>WCOB 1012</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>WCOB 1120</td>
<td>Computer Competency Requirement</td>
</tr>
</tbody>
</table>

15 Semester Hours

**Spring Semester Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1025</td>
<td>Composition II ** – University Core</td>
</tr>
<tr>
<td>WCOB 1023</td>
<td>Business Foundations</td>
</tr>
<tr>
<td>WCOB 1033</td>
<td>Data Analysis and Interpretation</td>
</tr>
<tr>
<td>ECON 2023</td>
<td>Microeconomics – University Core</td>
</tr>
<tr>
<td>Natural Science – University Core</td>
<td></td>
</tr>
</tbody>
</table>

16 Semester Hours

**Fall Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2043</td>
<td>Survey of Calculus **</td>
</tr>
<tr>
<td>ECON 2013</td>
<td>Macroeconomics ** – University Core</td>
</tr>
<tr>
<td>Select TWO of the following:</td>
<td></td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td></td>
</tr>
<tr>
<td>WCOB 2023</td>
<td>Production and Delivery of Goods and Services</td>
</tr>
<tr>
<td>WCOB 2033</td>
<td>Acquiring and Managing Human Capital</td>
</tr>
<tr>
<td>WCOB 2043</td>
<td>Acquiring and Managing Financial Resources</td>
</tr>
<tr>
<td>Social Science – University Core</td>
<td></td>
</tr>
<tr>
<td>Fine Art/Humanities – University Core</td>
<td></td>
</tr>
</tbody>
</table>

18 Semester Hours

**Spring Semester Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Art/Humanities – University Core</td>
<td></td>
</tr>
<tr>
<td>Natural Science – University Core</td>
<td></td>
</tr>
<tr>
<td>Business Social Science</td>
<td></td>
</tr>
<tr>
<td>Select TWO of the following not completed in previous semester:</td>
<td></td>
</tr>
<tr>
<td>WCOB 2013 Markets and Consumers</td>
<td></td>
</tr>
<tr>
<td>WCOB 2023</td>
<td>Production and Delivery of Goods and Services</td>
</tr>
<tr>
<td>WCOB 2033</td>
<td>Acquiring and Managing Human Capital</td>
</tr>
<tr>
<td>WCOB 2043</td>
<td>Acquiring and Managing Financial Resources</td>
</tr>
</tbody>
</table>

16 Semester Hours

ALL pre-business requirements should be met by end of term

**Fall Semester Year 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 4243</td>
<td>Ethics and Corporate Responsibility or MGMT 4953 Organizational Rewards</td>
</tr>
<tr>
<td>MGMT 4943</td>
<td>Organizational Staffing</td>
</tr>
<tr>
<td>WCOB 3016</td>
<td>Business Strategy and Planning</td>
</tr>
<tr>
<td>Junior Senior Business Elective</td>
<td></td>
</tr>
</tbody>
</table>

15 Semester Hours

**Spring Semester Year 3**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 4953</td>
<td>Organizational Rewards and Compensation or MGMT 4993 Organizational Staffing</td>
</tr>
<tr>
<td>MGMT or Collateral elective</td>
<td></td>
</tr>
</tbody>
</table>


### Organizational Leadership Concentration

#### 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
- U.S. History or Political Science – University Core

#### Spring Semester Year 1
- ENGL 1023 Composition II **- University Core
- WCOB 2023 Business Foundations
- WCOB 2033 Acquiring and Managing Human Capital
- WCOB 2013 Markets and Consumers
- ECON 2023 Microeconomics – University Core
- Natural Science – University Core

#### 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 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
  - Social Science – University Core
  - Fine Arts/Humanities – University Core

#### Spring Semester Year 2
- Fine Arts/Humanities – University Core
- Natural Science – University Core
- Business Social Science
- 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

#### Fall Semester Year 3
- MGMT 4243 Ethics and Corporate Responsibility
- MGMT 4253 Organizational Leadership
- WCOB 3016 Business Strategy and Planning
- Junior Senior Business Elective

#### Spring Semester Year 3
- Junior Senior Business Elective

### Small Business and Entrepreneurship Concentration

#### 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
- U.S. History or Political Science – University Core

#### 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
- Natural Science – University Core

#### 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 2023 Production and Delivery of Goods and Services
  - WCOB 2033 Acquiring and Managing Human Capital
  - WCOB 2043 Acquiring and Managing Financial Resources
  - Social Science – University Core
  - Fine Arts/Humanities – University Core

#### Spring Semester Year 2
- Fine Arts/Humanities – University Core
- Natural Science – University Core
- Business Social Science
- 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

#### Fall Semester Year 3
- MGMT 4263 Organizational Change and Development
- MGMT or Collateral elective
- Junior Senior Business Elective
- ENGL 2013 or ENGL 2033 or General Education Elective IF Advanced Composition Requirement has already been met***

#### Spring Semester Year 3
- Junior Senior Business Elective
- MGMT or Collateral elective
- MGMT 4263 Organizational Change and Development
- ENGL 2013 or ENGL 2033 or General Education Elective IF Advanced Composition Requirement has already been met ***
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 coursework 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.

<table>
<thead>
<tr>
<th>Total General Education</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Walton College Core Requirements

(See page 209)

Course Requirements in the Major

Select one from each of the following six groups. Sequencing of courses will be determined by choices made.

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

Group 2
- ACCT 3533 Accounting Technology
- ACCT 3613 Managerial Uses of Accounting Information
- ACCT 3723 Intermediate Accounting I
- ACCT 3753 Intermediate Accounting II

Group 3
- WCOB 4213 ERP Fundamentals
- ISYS 2263 Introduction to Information Systems
- 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
- Six hours 3000/4000 business courses

Junior-senior-level electives within Walton College

Maximum of 27 hours of courses in any one 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

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.
### Marketing and Logistics (MKTL)

Thomas D. Jensen,
Department Chair, 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
• Professor Howlett, 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.

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 applicable to industry. The retail marketing concentration prepares students for marketing careers in the retail industry.

#### Marketing Major Requirements

Complete the requirements for a B.S.B.A. degree as listed on page 209.

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total General Education</td>
</tr>
<tr>
<td>Walton College Core Requirements (See page 209)</td>
</tr>
<tr>
<td>Course Requirements in All Concentrations</td>
</tr>
<tr>
<td>MKTG 3433 Introduction to Marketing Strategy</td>
</tr>
<tr>
<td>MKTG 3553 Consumer Behavior</td>
</tr>
<tr>
<td>MKTG 3633 Marketing Research</td>
</tr>
</tbody>
</table>
Majors must select one of the following concentrations and must complete twelve hours of course work in the elected concentration.

**Concentration I: Marketing Management**
Select twelve hours from the following:
- MKTG 4233 Integrated Marketing Communications
- MKTG 4343 Selling and Sales Management
- MKTG 4103 Marketing Topics
- MKTG 4633 Global Marketing
- MKTG 4433 Retail Strategy
- MKTG 4443 Retail Buying and Merchandising

**Concentration II: Retail Marketing**
- MKTG 4433 Retail Strategy
- MKTG 4443 Retail Buying and Merchandising
- Select two courses (six hours) from the following:
  - MKTG 4233 Integrated Marketing Communications
  - MKTG 4343 Selling and Sales Management
  - MKTG 4103 Marketing Topics
  - MKTG 4633 Global Marketing

**Junior-senior-level electives within Walton College**
- Maximum of 27 hours of MKTG 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**
- 15 Semester hours
- 60 Total Degree Requirements

**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 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.

**Marketing Management 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></td>
</tr>
<tr>
<td>15 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 ** - University Core</td>
<td></td>
</tr>
<tr>
<td>3 WCOB 1023 Business Foundations</td>
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</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>
<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>
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</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>16 Semester Hours</td>
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<table>
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<tbody>
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<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>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 MKTG 3433 Introduction to Marketing Strategy</td>
<td></td>
</tr>
<tr>
<td>6 WCOB 3016 Business Strategy and Planning</td>
<td></td>
</tr>
<tr>
<td>6 Junior Senior Business Electives</td>
<td></td>
</tr>
<tr>
<td>15 Semester Hours</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 4</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 MKTG 4533 Marketing Management</td>
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</tr>
<tr>
<td>3 MKTG elective</td>
<td></td>
</tr>
<tr>
<td>3 Junior Senior Business Elective</td>
<td></td>
</tr>
<tr>
<td>6 General Education Electives</td>
<td></td>
</tr>
<tr>
<td>15 Semester hours</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 MKTG 3633 Marketing Research</td>
<td></td>
</tr>
<tr>
<td>3 MKTG elective</td>
<td></td>
</tr>
<tr>
<td>6 Junior Senior Business Electives</td>
<td></td>
</tr>
<tr>
<td>3 ENGL 2003 or ENGL 2013 or General Education Elective IF Advanced Composition Requirement has already been met***</td>
<td></td>
</tr>
<tr>
<td>15 Semester hours</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 MKTG 3553 Consumer Behavior</td>
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</tr>
<tr>
<td>6 MKTG electives</td>
<td></td>
</tr>
<tr>
<td>7 General Education Electives</td>
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</tr>
<tr>
<td>16 Semester hours</td>
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</table>

**Retail Marketing Concentration**

<table>
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<tr>
<th>Fall Semester Year 1</th>
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</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></td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></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>
<td></td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 3433 Introduction to Marketing Strategy</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus nine hours from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 4233 Integrated Marketing Communications</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 4343 Selling and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3633 Marketing Research</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 Merchandising</td>
<td>3</td>
</tr>
</tbody>
</table>

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. All upper level minor requirements must be taken in residence.

SEE PAGE 372 FOR MARKETING (MKTG) COURSES

Transportation and Logistics Major

The major in transportation and logistics is designed to prepare students for careers in carrier management and logistics management. Carrier management is the management of the domestic and international modes of transportation. Logistic management applies analytical techniques and uses the systems approach in managing the flow of materials into and through the production and manufacturing processes of a firm to its customers.

Basic employment opportunities exist in marketing, sales, and operations positions with carriers in all transportation modes, and in positions with shippers having responsibility in one or more of the areas under logistics management, warehousing, packaging, and materials handling. 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: 33

Course Requirements in the Major: 24

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLOG 3443 Principles of Transportation</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 3613 Business Logistics</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 3623 Purchasing and Inventory Systems</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 4633 Transportation Carrier Management</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 4643 International Transportation and Logistics</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 4653 Transportation and Logistics Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Plus two classes (six hours) from a single area:</td>
<td>6</td>
</tr>
<tr>
<td>Information Systems: ISYS 2263 Intro to Information Systems Dev.</td>
<td>3</td>
</tr>
<tr>
<td>Marketing: MKTG 4343 Selling and Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 3633 Marketing Research</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>International: ECON 4653 International Trade Policy</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4643 International Macroeconomics and Finance</td>
<td>3</td>
</tr>
<tr>
<td>ECON 4653 Global Competition and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>FINN 3703 International Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4853 International Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 4833 International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Junior- senior-level electives within Walton College</td>
<td>15</td>
</tr>
</tbody>
</table>

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### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 3433 Introduction to Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>WCOB 3016 Business Strategy and Planning</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior Business Electives</td>
<td>3</td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 4433 Retail Strategy</td>
<td>3</td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 3553 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 4443 Retail Buying and Merchandise</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 3633 Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MKTG 4433 Retail Strategy</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>16 Semester Hours</td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 4553 Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MKTG elective</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>15 Semester Hours</td>
<td></td>
</tr>
<tr>
<td>126 Total 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
Maximum of 27 hours of MKTG 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 |

Transportation and Logistics Eight-Semester Degree Program:

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 recommen-dations below are preferred.

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCOB 3343 Principles of Transportation</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 3613 Business Logistics</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 3633 Transportation Carrier Management</td>
<td>6</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior Business Elective</td>
<td>15</td>
</tr>
<tr>
<td>Semester hours</td>
<td>126</td>
</tr>
</tbody>
</table>

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLOG 3623 Purchasing and Inventory Systems</td>
<td>3</td>
</tr>
<tr>
<td>TLOG 4633 Transportation Carrier Management</td>
<td>6</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>3</td>
</tr>
<tr>
<td>Junior Senior Business Elective</td>
<td>15</td>
</tr>
<tr>
<td>Semester hours</td>
<td>126</td>
</tr>
</tbody>
</table>

### 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 3623 Purchasing and Inventory Systems
- 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 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. All upper level minor requirements must be taken in residence.

SEE PAGE 389 FOR TRANSPORTATION AND LOGISTICS (TLOG) COURSES

### WALTON COLLEGE OF BUSINESS (WCOB)

William P. Carington  
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 3533 Accounting Technology
ACCT 3723 Intermediate Accounting I
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 the 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. All upper level minor requirements must be taken in residence.

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 3013 Financial Analysis
- ECON 4753 Forecasting (Applied Time Series)
- Plus nine hours from the following courses:
  - FINN 3063 Investments
  - FINN 3603 Corporate Finance
  - ECON 3433 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. All upper level minor requirements must be taken in residence.

SEE PAGE 390 FOR WALTON COLLEGE OF BUSINESS (WCOB) COURSES
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 undergraduate programs of the college are organized under four academic units, with majors shown after each unit:

1. Curriculum and Instruction
   • Career and Technical Education
   • Childhood Education
   • Elementary Education
2. Eleanor Mann School of Nursing
   • Nursing
3. Health Science, Kinesiology, Recreation, and Dance
   • Health Science
   • Kinesiology
   • Recreation
4. Rehabilitation, Human Resources, and Communication Disorders
   • Communication Disorders
   • Human Resource Development

Facilities

The Graduate Education Building, Peabody Hall and the Health, Physical Education and Recreation Building serve as the nucleus of the College of Education and Health Professions’ activities. An auditorium, several conference and seminar rooms, classrooms, and offices for individual professors, along with 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, and computer laboratories are housed in the Graduate Education Building.
Peabody Hall houses the Department of Curriculum and Instruction, Teacher Licensure, classrooms, offices for individual professors and Peabody Perks coffee shop. The Health, Physical Education and Recreation (HER) Building houses the majority of faculty offices and classrooms for athletic training, health science, kinesiology, recreation, the Office for Studies on Aging and the Human Performance Laboratory. Specialized indoor space for instruction and recreation includes two dance studios, the Donna Axum Fitness Center, four gymnasiuums, an Olympic-size swimming pool, a jogging track, a climbing wall, and a combative room. 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. Intramural/Recreational Sports 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 and facilities 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: the National Office for Research, Measurement and Evaluation Systems (NORMES), the Center for Mathematics and Science Education (CMASE), the Center for Children and Youth, and the Arkansas Leadership Academy (ALA). 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 National Office for Research, Measurement, and Evaluation Systems conducts targeted educational research focusing on issues affecting students in Arkansas and general theoretical work in statistics, testing, and educational measurement. The Center for Mathematics and Science Education provides quality resources to private and public educators. The center also serves as the Arkansas NASA Educator Resource Center, disseminating educational materials provided by NASA.

Established in 1974, the Center for the Utilization of Rehabilitation Resources for Education, Networking, Training and Service (CURRENTS) provides customized training and consulting for organizations ranging from large state agencies to small not-for-profits and is nationally recognized for the high level of commitment and responsiveness to their customers and their efforts to expand, improve, and strengthen services to people with disabilities. The center is located at the Arkansas School for Mathematics, Sciences and the Arts, 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 *Journal of Interpretation* is edited by Douglas Watson, a professor of rehabilitation counseling. 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, and the *Journal of Research in Education*, edited by Michael Miller, a professor higher education.

**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 titled "Departments and 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 “Departments and 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

**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 and technical education (business education, family and consumer science, technology education), kinesiology (P-12 physical education), 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 two areas of emphasis: childhood education, middle level education and secondary education in drama/speech, English, foreign language, mathematics, science and social studies. 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 Master 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 2007-2008 was 100 percent, and 186 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://coehp.uark.edu/licensure.html. Look for the menu “Additional Licensure Plan.”

The Bumpers College of Agricultural, Food and Life Sciences, College of Education and Health Professions, Fullbright 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 the Praxis II test 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://www.uark.edu/registrar/TransferCredit/.

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 COEHP 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 are encouraged to declare a major as soon as possible. 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 students of the college 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 15 for admissions requirements)
- Career & Technical Education (Family & Consumer Science) – B.S. E. (initial licensure program, see page 15 for admissions requirements)
- Career & Technical Education (Technology Education) – B.S. E. (initial licensure program, see page 15 for admissions requirements)
- Child Care 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 http://coehp.uark.edu/4880.htm. 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 adviser for additional requirements.
2. Obtain a “C” or better in the following pre-education core if these courses are required for the chosen program:
   - CIED 1002, CIED 1011, CIED 3023 (PHED 3903 for KINS p-12 majors), and CIED 3033.
   - In addition, For Middle-Level Education and Childhood 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. Kinesiology 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 4023, CIED 4131, ETEC 2001/2002L or demonstration of computer competencies in a portfolio.
6. Obtain a “C” or better in the six hours of program-specific courses (see adviser for information), except for Kinesiology P-12.
7. Schedule a visit with adviser for additional requirements including admission to upper-division courses.
8. Consult with adviser regarding Praxis II requirements.
9. Consult with adviser for the GPA requirements for the chosen program.

Stage III: Admission

A. Admission to M.A.T.

The following minimum criteria are necessary to be eligible for consideration for admission to the M.A.T. Degree Program: (Consult with faculty adviser for additional requirements set by the chosen program.)

1. Meet all requirements in stages I and II.
2. Complete an appropriate undergraduate degree program.
3. Earn a cumulative GPA of 3.0 on the last 60 hours of Bachelor’s degree for automatic admission to the Graduate School. Consult adviser for the GPA requirements for the chosen program.
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.

Students who have completed the B.M. or B.F.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 an 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

4. Obtain recommendation for admission from M.A.T. program area based on successful completion of portfolios, evaluation for internship, GPA requirements, course work requirements, selected written recommendations, an interview, and other requirements specified by the chosen program.
5. Obtain admission to Graduate School. (See UA Graduate School Catalog for details.) Enrollment in each cohort will be limited. Transfer students will be allowed to enter the program on a space-available basis and must progress through all three admission stages.

B. Admission to Career and Technical Education B.S.E.

The following minimum criteria are necessary to be eligible for consideration for admission to the career and technical education B.S.E. teacher licensure program. (Consult with faculty adviser for additional requirements set by the chosen program).
1. Meet all applicable requirements in Stages I and II.
2. Earn a cumulative GPA of 2.50 or higher in the undergraduate program. Several courses have minimum grade requirements of "C" or better.
3. Obtain recommendation for admission to the student teaching program area based on passing scores of Praxis I and a successful interview with the teacher education faculty in career and technical education.

Stage IV: Graduation

A. Requirements for M.A.T.
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 adviser.
6. Successfully complete Comprehensive Examination.
7. Consult with adviser for other requirements.
8. Apply for degree at the Graduate School, 119 Ozark Hall.

B. Requirements for Career and Technical Education and Kinesiology P-12
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. The student teaching experience will be completed at a school/district in Benton or Washington County.
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, except for Kinesiology P-12.
7. Consult with adviser for other requirements.
8. Apply for degree.

Initial 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 an internship or a student teaching experience.
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 programs 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 students, 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

For more information about the honors program or to complete an application form, please refer to the college’s honors Web page at http://hono.uark.edu/.

SEE PAGE 357 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 41. 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 programs include:

• Childhood Education
• Communication Disorders
• Counselor Education
• Curriculum and Instruction
• Educational Leadership
• Educational Statistics and Research Methods
• Educational Technology
• Education Reform
• Elementary Education
• Health Science
• Higher Education
• Kinesiology
• Middle-Level Education
• Physical Education
• Recreation
• Rehabilitation
• Secondary Education
• Special Education
• Workforce Development

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.ncate.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.

DEPARTMENTS AND 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, elementary 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). The Special Education Program also offers a Graduate Certificate in Autism Spectrum Disorders (ASD). 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 327 FOR CURRICULUM AND INSTRUCTION (CIED) COURSES

CAREER AND TECHNICAL EDUCATION (CATE)

• Professors Daugherty, Thompson (C.)
• Associate Professor Orr
• Clinical Instructor Carter

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 323 FOR CAREER & TECHNICAL EDUCATION (CATE) COURSES.
Completion of the Bachelor of Science in Education degree with a Business Education concentration has one goal: 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.

### Hours

<table>
<thead>
<tr>
<th>I. University Core Requirements (See page 40)</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every undergraduate student must meet the advanced composition requirement (See page 41)</td>
<td></td>
</tr>
<tr>
<td>Required University Core for Business Education</td>
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<tr>
<td>PSYC 2003 General Psychology</td>
<td></td>
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<td>ECON 2013 Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON 2023 Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>MATH 2053 Finite Math</td>
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</table>

<table>
<thead>
<tr>
<th>II. BUED General Education Requirements</th>
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<tr>
<td>HLSC 1002 Wellness Concepts and PEAC 1621 Fitness Concepts or HLSC 1103 Personal Health and Safety</td>
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<table>
<thead>
<tr>
<th>III. Professional Education</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CIED 3023 Survey of Exceptionalities</td>
<td></td>
</tr>
<tr>
<td>CIED 3033 Classroom Learning Theory</td>
<td></td>
</tr>
<tr>
<td>CATE 1001 Practicum in Career &amp; Technical Education</td>
<td></td>
</tr>
<tr>
<td>CATE 4003 Professionalism</td>
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</tr>
<tr>
<td>CATE 4013 Teaching Strategies</td>
<td></td>
</tr>
<tr>
<td>CATE 4023 Classroom Management</td>
<td></td>
</tr>
<tr>
<td>CATE 4033 Assessment/Program Evaluation</td>
<td></td>
</tr>
<tr>
<td>CATE 4041 Lab Management</td>
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</tr>
<tr>
<td>CATE 4051 Seminar</td>
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</tr>
<tr>
<td>CATE 406V Teaching Internship</td>
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<table>
<thead>
<tr>
<th>IV. Technical Requirements</th>
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<tbody>
<tr>
<td>WCOB 1012 Legal Environment of Business</td>
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</tr>
<tr>
<td>WCOB 1023 Business Foundations</td>
<td></td>
</tr>
<tr>
<td>WCOB 1033 Data Analysis and Interpretation</td>
<td></td>
</tr>
<tr>
<td>WCOB 1120 Computer Competency Requirement</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 2043 Acquiring and Managing Financial Resources</td>
<td></td>
</tr>
<tr>
<td>Any 3 hour computer course</td>
<td></td>
</tr>
<tr>
<td>Any 3 hour MKTG 3000 level or above</td>
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<tr>
<td>CATE 4803 Problems in Career &amp; Technical Education (Word Processing)</td>
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</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>MATH 1203 if required (see adviser)</td>
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</tr>
<tr>
<td>18-24 hours Electives (see adviser for course list)</td>
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<td>Total 124 hours are required by the University of Arkansas for a degree.</td>
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<table>
<thead>
<tr>
<th>V. Admission requirements for Spring, Senior Year:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Earn a cumulative GPA of 2.5 or higher</td>
<td></td>
</tr>
<tr>
<td>2. Passing scores on Praxis I</td>
<td></td>
</tr>
</tbody>
</table>

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>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td>3</td>
<td>†Fine Arts or Humanities</td>
</tr>
<tr>
<td>3</td>
<td>MATH 1203 – If required</td>
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<tr>
<td>4</td>
<td>†Science with Lab</td>
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<tr>
<td>3</td>
<td>COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td>0</td>
<td>WCOB 1120 Computer Competency Requirement</td>
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<td>1</td>
<td>CATE 1001 Practicum in Career &amp; Technical Education</td>
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<tr>
<td>17</td>
<td>Semester hours</td>
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<table>
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<tr>
<th>Spring Semester Year 1</th>
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<tbody>
<tr>
<td>3</td>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td>3</td>
<td>†Fine Arts or Humanities</td>
</tr>
<tr>
<td>3</td>
<td>†U.S. History</td>
</tr>
<tr>
<td>3</td>
<td>†PSYC 2003 General Psychology</td>
</tr>
<tr>
<td>1</td>
<td>PEAC 1621 Fitness Concepts</td>
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<td>3</td>
<td>ECON 2013 Principles of Macroeconomics</td>
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<tr>
<td>16</td>
<td>Semester hours</td>
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<tr>
<td>3</td>
<td>ECON 2023 Principles of Microeconomics</td>
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<tr>
<td>3</td>
<td>ENGL 2003 Advanced Composition (or exempt)</td>
</tr>
<tr>
<td>3</td>
<td>MATH 2053 Finite Math</td>
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<tr>
<td>2</td>
<td>WCOB 1012 Legal Environment of Business</td>
</tr>
<tr>
<td>2</td>
<td>HLSC 1002 Wellness Concepts</td>
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<td>4</td>
<td>†Science with Lab</td>
</tr>
<tr>
<td>17</td>
<td>Semester hours</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 2</th>
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<tbody>
<tr>
<td>3</td>
<td>WCOB 1023 Business Foundations</td>
</tr>
<tr>
<td>3</td>
<td>WCOB 1033 Data Analysis and Interpretation</td>
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<tr>
<td>9</td>
<td>Electives</td>
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<td>15</td>
<td>Semester hours</td>
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<table>
<thead>
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<th>Fall Semester Year 3</th>
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<tbody>
<tr>
<td>3</td>
<td>CIED 3023 Survey of Exceptionalities</td>
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<tr>
<td>3</td>
<td>CIED 3033 Classroom Learning Theory</td>
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<td>3</td>
<td>Upper Level Elective</td>
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<td>Computer course</td>
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<tr>
<td>3</td>
<td>WCOB 2023 Production and Delivery of Goods</td>
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<tr>
<td>15</td>
<td>Semester hours</td>
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<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>WCOB 2013 Markets and Consumers</td>
</tr>
<tr>
<td>3</td>
<td>WCOB 2043 Acquiring and Managing Financial Resources</td>
</tr>
<tr>
<td>3</td>
<td>3000-level or above MKTG elective</td>
</tr>
<tr>
<td>3</td>
<td>CATE 4803 Problems in Career &amp; Technical Education (Word Processing)</td>
</tr>
<tr>
<td>3</td>
<td>Electives</td>
</tr>
<tr>
<td>15</td>
<td>Semester hours</td>
</tr>
</tbody>
</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>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Core Requirements for Concentration in Family and Consumer Science 35</td>
</tr>
<tr>
<td>Professional Education Core 36</td>
</tr>
<tr>
<td>Technical Requirements 45</td>
</tr>
<tr>
<td>Total Hours for degree 124</td>
</tr>
</tbody>
</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.
<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spring Semester Year 2</strong></td>
<td>HESC 4753, Family Financial Management 16 Semester Hours</td>
</tr>
<tr>
<td>Fall Semester Year 3</td>
<td>ENGL 2003 Advanced Composition (or exempt) 3 HESC 2053 Introduction to Textile Science 3 HESC 2413 Family Relation 2 HLSC 1002 Wellness Concepts 1 PEAC 1621 Fitness Concepts 3 HESC 2203 Nutrition for Exercise and Sports or HESC 2123 Catering Management 12-15 Semester Hours</td>
</tr>
<tr>
<td><strong>Spring Semester Year 3</strong></td>
<td>HESD 3433 Adolescent Development 3 HESC 4433 Dynamic Family Interaction 3 HESC 2433 Child Development 3 CATE 4803 Problems in CATE (Housing) 3-4 Elective 15 Semester Hours</td>
</tr>
<tr>
<td>Fall Semester Year 4</td>
<td>CIED 3023 Survey of Exceptionality 3 CATE 4003 Introduction to Professionalism 3 CATE 4013 Teaching Strategies 3 CATE 4023 Classroom Management 3 CATE 4033 Assessment/Program Evaluation 15 Semester Hours</td>
</tr>
<tr>
<td>Spring Semester Year 4</td>
<td>CATE 4041 Lab Management 1 CATE 4051 Seminar 12 CATE 406V Teaching Internship 14 Semester Hours 124 Total Hours</td>
</tr>
</tbody>
</table>

†University Core areas must be completed as outlined in Catalog of Studies, see page 40.

**Technology Education (TEED)**

Vinson Carter
Adviser
116 Peabody Hall
479-575-3076

A Bachelor of Science in Education degree with a concentration in Technology Education is a licensure program that prepares students to teach technology, pre-engineering, or other technical subject matter at the high school, middle-level, or community college. Additionally, the program prepares one to enter mid-level technical management careers in business and industry. The concentration is a specialized field of study within the Career and Technical Education program at the University of Arkansas.

**University Core Requirements (State Minimum Core)**

See Page 40

Science concentration of core must include:
CHEM 1103/1101L University Chemistry

**Technical Requirements**

<table>
<thead>
<tr>
<th>31</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2030/2011L College Physics</td>
</tr>
<tr>
<td>MATH 2043/2011L College Algebra</td>
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</table>

**Technical Electives**

16-19

**Total Hours**

124

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
1 GNEG 1111 Introduction to Engineering I
3 PSYC 2003 General Psychology
2 GNEG 1122 Introduction to CAD
3 † U.S. History
1 CATE 1001 Practicum in Career & Technical Education
12 Semester Hours

Spring Semester Year 1
3 ENGL 1023 Composition II
1 GNEG 1121 Introduction to Engineering II
2 ELEG 2903 Digital Design
3 TEED 1103 The Nature of Technology
3 MATH 2043 Survey of Calculus
2 Technical Elective Course***
18 Semester Hours

Fall Semester Year 2
4 PHYS 2013/2011L College Physics with lab
3 † Fine Arts or Humanities
3 COMM 1313 Fundamentals of Communication
3 TEED 2103 Technology & Society
3 CIED 1003 Introduction to Technology in Education
3 † U.S. History
3 † Social Science
16 Semester Hours

Spring Semester Year 2
3 ENGL 2003 Advanced Composition (or exempt**) If exempt take additional (3) Technical Elective Course***
4 CHEM 1103/1101L University Chemistry I with lab
3 TEED 3103 Tech. Research, Experimentation, & Trouble-shooting
3 † Fine Arts or Humanities
3 † Social Science
15 Semester Hours

Fall Semester Year 3
3 CIED 3023 Survey of Exceptionalities
3 CIED 3033 Classroom Learning Theory
3 TEED 3203 Information and Communications Systems
3 INEG 3513 Manufacturing Design and Processes
3 Technical Elective Course***
15 Semester Hours

Spring Semester Year 3
3 TEED 3303 Energy, Power, & Transportation
3 † Social Science
3 Technical Elective Course***
3 Technical Elective Course***
2 Technical Elective Course***
14 Semester Hours

Fall Semester Year 4
3 TEED 4103 Eng. Design for TE Capstone
3 CATE 4003 Professionalism
3 CATE 4013 Teaching Strategies
3 CATE 4023 Classroom Management
3 CATE 4033 Assessment & Program Evaluation
3 CVEG 4513 Construction Management
18 Semester Hours

Spring Semester Year 4
1 CATE 4041 Lab Management
1 CATE 4051 Seminar
12 CATE 406V Teaching Internship (12 hours)
14 Semester Hours
124 Total Hours

Competency-Based Teacher Development (CBTD)
Vinson Carter
Adviser
116 Peabody Hall
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.

CHILDOOD EDUCATION (ELED)
• Associate Professors Collier, Imbeau
• Clinical Associate Professor Eilers
• Assistant Professors Kirkpatrick, Penner-Williams, Wissehr
• Clinical Assistant Professor Mounts
• Clinical Instructors Bell (K.), Owen, Kerr, Kindall, Smith (D.)
• Instructor Riggs (S.)

The Department of Curriculum and Instruction offers programs that prepare candidates for initial teacher licensure in Childhood Education. The B.S.E. degree in Childhood Education is not an initial teacher licensure program but instead leads to the Master of Arts in Teaching (M.A.T.), which is the initial teacher licensure preparation program. Information about the M.A.T. degree program can be found in the University of Arkansas Graduate Catalog. Candidates seeking entry into the Childhood Education program will be advised in the Boyer Center for Student Services until admission to the junior year of the program, at which time they will be assigned a faculty adviser.

Admission to the B.S.E. in Childhood Education is limited and consists of a three-stage process.

Stage I: Pre-Childhood Education
1. Complete all program pre-requisites including the first 62 or 63 hours of the 8-semester plan (see 8-semester table below)
2. Obtain a minimum of 2.7 GPA on the 62 or 63 hours of pre-requisite courses, either from the UA or on transfer coursework.
3. Complete the following courses with a “C” or better: CIED 1002/1011, MATH 1203, ENGL 1013, and ENGL 1023.
4. Obtain a passing score on the Math, Reading, and Writing sections of the Praxis I.

Stage II: Admission to the Childhood Education Program
Admission to the Childhood Education Program occurs after completion of all Pre-Childhood Education requirements and prior to the beginning of the fall semester of the junior year. Applications to the Childhood Education (ELED) program must be submitted by January 30th.

The application process includes:
1. Submission of Childhood Education application.
2. Submission of transcripts for all coursework.
3. Oral Interview.
4. Submission of Writing and Editing Samples.
5. Submission of passing score on Math, Reading, and Writing sections of Praxis I Exam.

Stage III: Requirements for Progression to Senior Coursework
1. Declaration of endorsement area of ESL or SPED.
2. Cumulative GPA of 2.7.
3. All non-methods math, science, social studies and HESC courses as well as CIED 3003/3001 and CIED 3263 must be completed prior to senior year.
Master of Arts in Teaching (M.A.T.)

The Master of Arts in Teaching (M.A.T.) is the degree that leads to initial teacher licensure. This is a graduate program and applicants must meet the admission requirements of the Graduate School. Applicants must have completed all requirements for the B.S.E. by the end of spring semester to be considered for admission into the M.A.T., which is a year-long field-based degree that starts during the summer prior to the regular fall-spring academic year.

M.A.T. candidates will be advised by faculty advisers.

Admission requirements:
1. Admission to the University of Arkansas Graduate School.
3. Cumulative GPA of 3.0 on the last 60 hours of coursework.
   Including any transfer work or grade forgiveness.
4. Passing score on Praxis II, Early Childhood: Content Knowledge (10022).
5. Passing score on M.A.T. entrance portfolio.

NOTE: Requirements for teacher licensure vary from state to state and may differ from teacher preparation programs. Please note that Arkansas requires all applicants to successfully complete a criminal background check. Arkansas Teacher Licensure requirements can be found at http://arkansased.org/teachers/licensureinitial.html.

NOTE: All professional education courses in CIED must have a grade of “C” or better. No teaching methods courses may be taken by correspondence.

<table>
<thead>
<tr>
<th>Childhood Education Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL option</td>
<td>35</td>
</tr>
<tr>
<td>University Core (State Minimum Core)</td>
<td></td>
</tr>
<tr>
<td>*Specifically required University Core for Childhood Education majors (see below)</td>
<td></td>
</tr>
<tr>
<td>General Studies</td>
<td>9-10</td>
</tr>
<tr>
<td>WLIT (3 hrs) World Literature</td>
<td></td>
</tr>
<tr>
<td>HLSC 1002 Wellness Concepts or HLSC 1103 Personal Health and Safety</td>
<td></td>
</tr>
<tr>
<td>PEAC 1621 Fitness Concepts</td>
<td></td>
</tr>
<tr>
<td>ENGL 2003 Advanced Composition</td>
<td></td>
</tr>
<tr>
<td>NOTE: All professional education courses in CIED must have a grade of “C” or better. Enrollment in upper-division professional education courses may be limited. Contact advisers for specific details. No teaching methods courses may be taken by correspondence.</td>
<td></td>
</tr>
<tr>
<td>Childhood Education/Communication</td>
<td>28 - 29</td>
</tr>
<tr>
<td>CIED 3123 Math Methods</td>
<td></td>
</tr>
<tr>
<td>CIED 3133 Integrated Social Studies</td>
<td></td>
</tr>
<tr>
<td>CIED 3143 Teaching Science</td>
<td></td>
</tr>
<tr>
<td>CIED 4101 Practicum</td>
<td></td>
</tr>
<tr>
<td>CIED 4113 Integrated Communication Skills</td>
<td></td>
</tr>
<tr>
<td>CIED 4153 Classroom Management</td>
<td></td>
</tr>
<tr>
<td>CIED 3003/3001 Early Childhood Ed./Practicum or HESC 3402/3401L Child Guidance</td>
<td></td>
</tr>
<tr>
<td>CIED 3263 Language Development for the Educator</td>
<td></td>
</tr>
<tr>
<td>HESC 2433 Child Development</td>
<td></td>
</tr>
<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
</tbody>
</table>

Interdisciplinary Studies

| Mathematics (in addition to MATH 1203)                  | 16    |
| MATH 2213 Math Structures I                             |       |
| MATH 2223 Math Structures II                            |       |
| General Science (12 hours)                              |       |
| *BIOL 1543/1541L Principles of Biology                  |       |
| *GEOL 1113/1111L General Geology/Lab                    |       |
| Physical science course with laboratory                 |       |
| Social Science (18 hours)                               |       |
| ECON 3053 Economics for Elementary Teachers or any Economics course** |       |
| 3 hours Geography **                                    |       |
| *PLSC 2003 American National Government                |       |
| *PSYC 2003 General Psychology                           |       |
| Arkansas History                                        |       |
| HIST 3383 Arkansas and the Southwest or any Arkansas history course |       |
| 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 Introduction to Education                    | 18    |
| CIED 1011 Introduction to Education Practicum          |       |
| CIED 3023 Survey of Exceptionalities                   |       |
| CIED 3033 Classroom Learning Theory                     |       |
| CIED 1003 Introduction to Technology in Education or any 3-hour computer course |       |
| CIED 3103 Children’s Literature                        |       |
| CIED 3113 Emergent and Developmental Literacy          |       |

Aesthetics

| 6 hours fine arts or humanities, 3 hours of which must meet university core requirements |       |
| CIED 4413 Acquiring a Second Language                  |       |
| CIED 4423 Teaching a Second Language                   |       |

** Students should meet with adviser to determine University Core requirements.

Childhood Education Requirements

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>124-125</td>
</tr>
</tbody>
</table>

Childhood Education Requirements

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-15</td>
</tr>
</tbody>
</table>

** Students should meet with adviser to determine University Core requirements.

Interdisciplinary Studies

| Mathematics (in addition to MATH 1203)                  | 16    |
| MATH 2213 Math Structures I                             |       |
| MATH 2223 Math Structures II                            |       |
| General Science (12 hours)                              |       |
| *BIOL 1543/1541L Principles of Biology                  |       |
| *GEOL 1113/1111L General Geology/Lab                    |       |
| Physical science course with laboratory                 |       |
| Social Science (18 hours)                               |       |
| ECON 3053 Economics for Elementary Teachers or any Economics course** |       |
| 3 hours Geography **                                    |       |
| *PLSC 2003 American National Government                |       |
| *PSYC 2003 General Psychology                           |       |
| Arkansas History                                        |       |
| HIST 3383 Arkansas and the Southwest or any Arkansas history course |       |
| 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 Introduction to Education                    | 18    |
| CIED 1011 Introduction to Education Practicum          |       |
| CIED 3023 Survey of Exceptionalities                   |       |
| CIED 3033 Classroom Learning Theory                     |       |
| CIED 1003 Introduction to Technology in Education or any 3-hour computer course |       |
| CIED 3103 Children’s Literature                        |       |
| CIED 3113 Emergent and Developmental Literacy          |       |

Aesthetics

| 6 hours fine arts or humanities, 3 hours of which must meet university core requirements |       |
| CIED 4413 Acquiring a Second Language                  |       |
| CIED 4423 Teaching a Second Language                   |       |

** Students should meet with adviser to determine University Core requirements.
College of Education and Health Professions

### CIED 3143 Teaching Science
- CIED 3263 Language Development for the Educator
- CIED 4101 Practicum
- CIED 4113 Integrated Communication Skills
- CIED 4153 Classroom Management
- HESC 2433 Child Development
- COMM 1313 Fundamentals of Communication

### Interdisciplinary Studies
- Mathematics (in addition to MATH 1203)
- MATH 2213 Math Structures I
- MATH 2223 Math Structures II
- General Science (12 hours)
  - *BIOL 1543/1541L Principles of Biology
  - *GEOL 1113/1111L General Geology/Lab
- Physical science course with laboratory
- Social Science (18 hours)
  - ECON 3053 Economics for Elementary Teachers or any Economics course**
  - 3 hours Geography**
  - *PLSC 2003 American National Government
  - *PSYC 2003 General Psychology
- Arkansas History
- HIST 3383 Arkansas and the Southwest or any Arkansas history course
- History (select one of the following):
  - *HIST 2003 History of the American People to 1877
  - *HIST 2013 History of the American People, 1877 to Present

### Pre-Education Core
- CIED 1002 Introduction to Education
- CIED 1011 Introduction to Education Practicum
- CIED 3023 Survey of Exceptionalities
- CIED 1003 Introduction to Technology in Education 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

### Electives
- 11-15
- **Total for Childhood Education** 124-125

**Students should meet with adviser to determine University Core requirements

### 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>Fall Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>3 MATH 1203 College Algebra (or higher)</td>
<td></td>
</tr>
<tr>
<td>4 BIOL 1543/1541L. Principles of Biology w/lab or GEOL 1113/1111L</td>
<td></td>
</tr>
</tbody>
</table>

### Spring Semester Year 1
- 3 HENGL 1023 Composition II
- 3 MATH 2213 Math Structures I
- 4 GEOL 1113/1111L General Geology w/lab or BIOL 1543/1541L
- 2 HENGL 1002 Introduction to Education
- 1 HENGL 1011 Practicum
- 3 PSYC 2003 General Psychology
- 16 Semester Hours

### Fall Semester Year 2
- 3 Fine Arts or Humanities Elective
- 3 HESC 2433 Child Development
- 3 HENGL 1003 Survey of Exceptionality
- 3 HIST 2003 or 2013 or PLSC 2003
- 3 HENGL 1313 Fundamentals of Communications
- 15 Semester Hours

### Spring Semester Year 2
- 4 Physical Science w/lab
- 3 CIED 1003 Introduction to Technology in Education or any computer course
- 2 Electives
- 3 CIED 2223 Math Structures II
- 3 HENGL 3033 Classroom Learning Theory
- 15 Semester Hours

### Fall Semester Year 3
- 3 HIST 3383 Arkansas and the Southwest
- 3 ECON 3053 Economics forElem. Teachers or any economics course
- 3 WLLT 3 hours
- 3-4 †CIED 3003/3001 Early Childhood Education or HESC 3402/3401L Child Guidance/Lab
- 3 Electives
- 15-16 Semester Hours

### Spring Semester Year 3
- 3 HENGL 2003 Advanced Composition (if required) or elective
- 15 Semester Hours

### Fall Semester Year 4
- 3 HENGL 3143 Teaching Science
- 3 HENGL 3263 Language Development/Educator
- 3 Any GEOG course
- 3 Fine Arts or Humanities Elective
- 3 Electives
- 3 HENGL 3033 Classroom Learning Theory
- 15 Semester Hours

### Spring Semester Year 4
- 3 HENGL 3103 Children's Literature
- 3 HENGL 3113 Emergent & Developmental Literacy
- 3 HENGL 3123 Math Methods
- 3 HENGL 4153 Classroom Management
- 3 ESL Elective or Special Education Elective
- 15 Semester Hours

### Fall Semester Year 4
- 3 HENGL 4101 Practicum
- 3 HENGL 4113 Integrated Communication Skills
- 3 HENGL 3133 Social Studies
- 3 HENGL 4101 Practicum
- 3 HENGL 3143 Teaching Science
- 3 ESL Elective or Special Education Elective
- 3 Electives
- 16 Semester Hours

### Total Hours
- 124-125

† A grade of C or better is required for these courses
* 2.7 GPA cumulative and admission to Stage III required for these courses.
M.A.T. Degree Program Requirements

ESL option
Required Courses for the M.A.T. Core
  CIED 5013 Measurement/Research/Statistical Concepts for Teachers
  CIED 5022 Classroom Management Concepts for Teachers
  CIED 5032 Curriculum Design Concepts for Teachers
  CIED 5053 Multicultural Issues in Elementary Education
Additional Program Requirements
  CIED 5003 Childhood Seminar
  CIED 5073 Case Study in Childhood Education
  CIED 5173 Literacy Assessment and Intervention
  CIED 5162 Applied Practicum
  CIED 508V Childhood Education Cohort Teaching Internship (6 hours)
  CIED 5943 Teaching People of Other Cultures
  CIED 5953 Secondary Language Assessment
  CIED 5343 Applied Classroom Management
  CIED 5873 Assessment of Persons with Disabilities

M.A.T. Degree Program Requirements

SPED option
Required Courses for the M.A.T. Core
  CIED 5013 Measurement/Research/Statistical Concepts for Teachers
  CIED 5022 Classroom Management Concepts for Teachers
  CIED 5032 Curriculum Design Concepts for Teachers
  CIED 5053 Multicultural Issues in Elementary Education
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 5073 Assessment of Persons with Disabilities

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)

Tay Sha 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 all or most of their first two years of study at NorthWest Arkansas Community College (NWACC) prior to admission to the program. The final two years of the program are University of Arkansas courses offered at the University of Arkansas Global Campus in Rogers, Arkansas.

Academic Requirements for Elementary Education Majors

Pre-Admission:
Candidates will complete the first two years of study at NorthWest Arkansas Community College. They will establish a GPA of 2.70 or better in the prerequisite courses and pass Praxis I. Applicants must also hold a valid CPR card for both children and adults. The deadline for application to the University of Arkansas course portion of this program and submission of Praxis scores is April 15 prior to fall enrollment. Once the application materials are received, candidates will participate in an oral interview with program faculty. Eligibility to enroll in University of Arkansas courses is contingent upon successfully completing all requirements in the Pre-Admission phase.

University of Arkansas Coursework Progression
Candidates will enroll in University of Arkansas courses and maintain a GPA of 2.7 or better. They will be required to pass both Praxis II: Early Childhood Content Knowledge in the junior year and Praxis II: Principles of Learning and Teaching Early Childhood in the senior year. This degree includes approximately 9 months of student teaching experiences in a Rogers, Bentonville, or Springdale elementary school. Senior level candidates must therefore attend full-time.

All professional education courses in CIED must have a grade of “C” or better. No teaching methods courses may be taken by correspondence.

Elementary Education Requirements

Prerequisites:
The course numbers listed for the prerequisites are Northwest Arkansas Community College course numbers:

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 ART 1033 Introduction to Art Studio
BIOL 1544 Principles of Biology/lab
CHED 2003 Foundations of Early Childhood Education
CIED 1002 Introduction to Education
CIED 1001 Practicum
COMM 1313 Fundamentals of Communication
ENGL 1013 Composition I
ENGL 1023 Composition II
ETEC 2003 Educational Technology and lab
ENGL 2213 Survey of World Literature to 1650 or ENGL 2223 Survey of World Literature from 1650
GEOG 1123 Human Geography
GEOG 2053 Human Geography
HIST 2003 or 2013 U.S. History
HIST 2053 History of Arkansas
HLSC 1002 Wellness Concepts
MATH 1204 College Algebra
MATH 2213 Math Structures I
MATH 2223 Math Structures II
PLSC 2003 American Government
PSYC 2003 General Psychology
ENGL 2213 Survey of World Literature to 1650 or ENGL 2223 Survey of World Literature from 1650
Any 4-hour physical science course with lab that satisfies University of Arkansas core.
University of Arkansas Childhood Education Courses

ENGL 2003 Advanced Composition must be taken at University of Arkansas if not exempted
CIED 3023 Survey of Exceptionalities
CIED 3033 Classroom Learning Theory
CIED 3003 Early Childhood Education
CIED 3001 Early Childhood Education Practicum
CIED 3103 Children's Literature
CIED 3123 Mathematics Methods
CIED 3113 Emergent and Developmental Literacy
CIED 4113 Integrated Communication Skills
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, therefore the course numbers listed for the first two years are NWACC course numbers. Beginning with the Fall Semester of Year 3, University of Arkansas course numbers are listed.

B.S.E. students will apply to the University of Arkansas and request the transfer of freshman and sophomore credits to the University of Arkansas during the semester before their junior year. The University accepts transfers of no more that 68 lower division credit hours. Taking freshman or sophomore courses directly from University of Arkansas (as a correspondence course) may prevent you from exceeding this 68 credit-hour transfer limit.

<table>
<thead>
<tr>
<th>Fall Semester Year 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1013 English Composition I</td>
</tr>
<tr>
<td>4 MATH 1204 College Algebra</td>
</tr>
<tr>
<td>4 BIOL 1544 Principles of Biology/Lab</td>
</tr>
<tr>
<td>3 COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td>3 CHED 1003 Foundations &amp; theories in ECE</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 English Composition II</td>
</tr>
<tr>
<td>3 HIST 2053 History of Arkansas</td>
</tr>
<tr>
<td>3 MATH 2213 Math Structures I</td>
</tr>
<tr>
<td>2 CIED 1002 Introduction to Education</td>
</tr>
<tr>
<td>1 CIED 1001 Practicum</td>
</tr>
<tr>
<td>3 PSYC 2003 General Psychology</td>
</tr>
<tr>
<td>2 HLSC 1002 Wellness Concepts</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>3 ARHS 1003 Art Appreciation or ART 1033 Intro to Art Studio</td>
</tr>
<tr>
<td>4 Physical science course with lab</td>
</tr>
<tr>
<td>3 HIST 2003 or 2013 U.S. History</td>
</tr>
<tr>
<td>3 MATH 2223 Math Structures II</td>
</tr>
<tr>
<td>13 Semester hours</td>
</tr>
</tbody>
</table>

Spring Semester Year 2

| 3 ENGL 2003 Educational Technology and lab |
| 3 GEOG 1123 Human Geography |
| 3 PLSC 2003 American Government |
| 3 CIED 2023 Child Development |
| 3 ENGL 2213 or 2223 Survey of World Literature to 1650 or from 1650 |
| 15 Semester hours* |

Fall Semester Year 3

| 3 CIED 3023 Survey of Exceptionalities |
| 3 CIED 3033 Classroom Learning Theory |
| 3 CIED 3143 Teaching Science |
| 3 CIED 3003 Early Childhood Education |
| 1 CIED 3001 Practicum |
| 3 CIED 3103 Children's Literature |
| 16 Semester hours |

Spring Semester Year 3

| 3 ENGL 2003 Advanced Composition if not exempted** |
| 3 CIED 3263 Language Development for the Educator |
| 3 CIED 3123 Mathematics Methods |
| 3 CIED 3113 Emergent & Develop Lit |
| 3 CIED 3133 Integrated Social Studies |
| 1 CIED 4101 Practicum |
| 16 Semester hours |

Summer Semester Year 3

| 3 CIED 4113 Integrated Communication Skills |
| 3 CIED 4133 Measurement, Research, and Readings |
| 6 Semester hours |

Fall Semester Year 4

| 3 CIED 4173 Student Teaching |
| 3 CIED 4153 Classroom Mgmt. |
| 3 CIED 4143 Curriculum Design |
| 3 CIED 4323 Instructional Design/Teachers |
| 12 Semester hours |

Spring Semester Year 4

| 3 CIED 4173 Student Teaching |
| 3 CIED 4163 Senior Project |
| 3 CIED 4003 Elementary Seminar |
| 3 CIED 4423 Teaching a Second Language |
| 12 Semester hours |
| 127 Total Hours |

* B.S.E. students will apply to the University of Arkansas and request the transfer of freshman and sophomore credits to UA during the semester before their junior year. UA accepts transfers of no more that 68 lower division credit hours. Taking freshman or sophomore courses directly from UA (as a correspondence course) may prevent you from exceeding this 68 credit-hour transfer limit.

** The University of Arkansas requires that all students take ENGL 2003 Advanced Composition or ENGL 2013 Essay Writing on the UA campus before graduation unless the student has passed the Advanced Composition Exemption Exam. This exam is available at the NorthWest Arkansas Community College Testing Center. Essay Writing (ENGL 2013) is available as a correspondence course at http://offcampus.uark.edu.

Online delivery of Masters of Education in Elementary Education is available. Information can be found in the University of Arkansas Graduate School Catalog.

SEE PAGE 327 FOR CURRICULUM AND INSTRUCTION (CIED) COURSES.
ELEANOR MANN SCHOOL OF NURSING (NURS)

Nan Smith-Blair
Interim Director
Lepaine McHenry
Assistant Director
217 Ozark Hall
479-575-3904
nursing@uark.edu

- Professors Kippenbrock, Neighbors
- Associate Professors Barta, Smith-Blair
- Assistant Professors Buron, Odell
- Clinical Associate Professor Lawson
- Instructors Agana, Malm, McHenry, Miller, Murphy, Scott, Sisson

The mission of the Eleanor Mann School of Nursing is to promote the health of society through education of professional nurses, research, and service. In recognition of the interrelationship between teaching, research, service, and the practice of nursing, in the changing health care needs of society, the faculty aspires toward excellence in teaching, contributes to research in nursing, and promotes improved health care.

Professional nursing begins with a Bachelor of Science degree. Nursing education offers a research base for nursing practice that promotes the ability of the nurse to effect change needed to improve health. In the study of professional nursing, the student builds on a planned general education for the academic disciplines and acquires theoretical and specific knowledge to meet health care needs. In addition, the curriculum provides opportunity for students to develop their skills and knowledge as nurses and for continued personal and professional development. 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 National Council Licensure Examination (NCLEX-RN) for licensure as a registered nurse (R.N.). Persons convicted of a crime may not be eligible to take the NCLEX-RN examination. A criminal background check is required before graduation to the Eleanor Mann School of Nursing. A positive drug screen will lead to denial of admission to the nursing program. Results are reported to the Eleanor Mann School of Nursing. A negative drug screen are available on the Eleanor Mann School of Nursing Web site: http://nurs.uark.edu/4208.htm.

ADMISSION TO THE B.S.N. PROGRAM

Admission Policies

Conditional Admission to the B.S.N. Program

Admission to the B.S.N. program is limited. Conditional admission will be determined by the Eleanor Mann School of Nursing faculty. Admission requirements for the professional program of study are as follows:

1. Overall minimum grade-point average (GPA) of 3.00. The GPA is the most important factor for admission selection.
2. Students will be ranked according to GPA and selected for conditional admission to the program based on GPA rank.
3. The GPA will be computed on all prerequisite courses for nursing only, whether they are from the University of Arkansas or transfer hours.
4. If the student is a second degree student, an additional 0.1 point will be added to the GPA for the student for admission ranking.

5. Applications for admission must be submitted between October 15 and December 1 to be considered for fall semester admission and between April 15 and June 1 for spring semester admission. Late applications will be considered on a space-available basis.
6. Students must meet the performance standards for the professional program of study.
7. Students transferring from another nursing program must provide a letter from the nursing program that they are eligible to return and in good standing to be considered for admission.

Full Admission to the B.S.N. Program

Full admission to the Eleanor Mann School of Nursing is contingent upon successfully meeting the following requirements:

1. All prerequisite coursework for a fall admission into the Professional Program of Study in Nursing must be completed by the end of the summer semester with the exception of the three pre-nursing courses (NURS 212, NURS 222, NURS 232), which may be taken in the summer session prior to entering the program of study in nursing in the fall. (All coursework for spring admission must be completed by the end of the fall semester prior to entering the Professional Program of Study in Nursing in the spring, as already required.)
2. Proof of the following:
   a) CPR certification (American Heart Association Basic Certified Life Support and Automated Emergency Defibrillation) CPR for Health Care Providers
   b) Completed Hepatitis B vaccine with dates of each injection or immune titer if vaccine received 10 years ago. Three (3) HBV injections are needed. Students are required to have obtained HBV Injection 1 within two weeks of the beginning of the scheduled semester, followed by Injection 2 in one month, and Injection 3 within six months of Injection 1, in order to enter the clinical setting. A student who fails to obtain the complete series (3 injections), according to the Center for Disease Control (CDC) established timeframe, will not be permitted to participate in patient care contact required in clinical experiences.
   c) Negative Tuberculin skin test or negative chest X-ray result within two years if student has ever tested positive for tuberculosis.
   d) Diphtheria-Tetanus (DT) required.
   e) Health insurance: Students must submit proof of current coverage.
   f) Liability insurance is provided through an established student fee at the University of Arkansas.
   g) A criminal background check is required. Results will be reported to the college administration and school officials and any health-care facility in which the students are placed as part of the clinical education. An unsatisfactory background check result may lead to denial of admission to the nursing program. The criminal background check must be completed by the end of the semester in which the student receives acceptance into the program.
   h) A negative drug screen is required within two weeks prior to entrance into the nursing program. Results are reported to the Eleanor Mann School of Nursing. A positive drug screen will lead to denial of admission to the nursing program. Student failure to submit to a drug screen, attempting to tamper with, contaminate, or switch a sample will result in the student not being admitted to the nursing program and will be referred to the Dean of Students in the Division of Student Affairs at the University of Arkansas.

   Procedures for the criminal background check and the drug screen are available on the Eleanor Mann School of Nursing Web site: http://nurs.uark.edu/4208.htm.
R.N. to B.S.N. Admission Policies

1. College admission requirements.
2. Eleanor Mann School of Nursing admission policies.
3. Completion of the general education studies. (R.N. students who have completed 45 hours of the required general studies may petition for exception to the nursing admission policy if MATH 1203, EDFD 2403, and NURS 2012 have been completed.)
4. Graduation from an Arkansas State Board of Nursing approved program or an accredited out-of-state program.
5. Review of nursing courses for transfer credit by the School of Nursing.
6. Proof of, and maintenance of, an unencumbered license to practice as a Registered Nurse in Arkansas.
7. Requirements necessary to receive advanced placement may vary with length of time since graduation and length of time of (or since) nursing employment.
8. Credit for courses listed below will be held in escrow. The student will receive credit for these courses upon successful completion of the program. 

NURS 2032
NURS 3212
NURS 3313
NURS 3422/3424
NURS 3634/3643
NURS 3742/3752
NURS 3841L
NURS 4154/4164
NURS 4443/4453

R.N. students will be considered as a separate group for admission purposes.

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 L.P.N. or L.P.T.N. 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 a L.P.N. or L.P.T.N. in the state of Arkansas.
6. Advanced placement may vary based on the length of time since completion of the L.P.N. or L.P.T.N. 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.

NURS 3313
NURS 2032
NURS 3422/3424

8. Students may receive credit for NURS 3634/3643 through validation examination.

L.P.N./L.P.T.N. students will be considered as a separate group for admission purposes.

Progression, Withdrawal, and Dismissal

1. For progression in the nursing program, only grades of “C” or above will be accepted. Students who make less than a “C” may not progress into courses for which that course is a prerequisite until the course is repeated and the required minimum grade attained.
2. Students may repeat a specific nursing course only once. If a “D,” “F,” or “W” is earned on the second attempt, the student will be required to withdraw from the School of Nursing.
3. No more than two nursing courses within the program of study may be repeated. If the student does not earn a grade of at least “C” upon repeating the course, the student may not enroll in any nursing courses or continue in the School of Nursing.

Professional Role Implementation Courses

1. A student who needs to repeat a Professional Role Implementation Course must make petition to the Undergraduate Admissions Committee and be encouraged to do so as soon as they are aware of the need to repeat a course.
2. Students will be readmitted on a space-available basis according to the following priority system:

   **Priority Groups for Placement in Required Clinical Courses**
   a) First Priority – Continuing full-time students
   b) Second Priority – Continuing part-time students
   c) Third Priority – Repeating students who were unable to repeat a course for one or more semesters
   d) Fourth Priority – Repeating students in the semester immediately following the one in which they failed a nursing course.
3. Spaces in clinical courses are limited and tightly controlled by accreditation, the Arkansas State Board of Nursing, and clinical agency policies. A student re-enrolling in a Professional Role Implementation Course (whether due to illness, course failure, part-time status, or other reasons) will not be assured clinical placement space in subsequent courses.
4. NOTE: A student dismissed from a Professional Role Implementation Course due to safety, ethical, or dishonesty issues will be administratively withdrawn from all clinical courses, and may be subject to administrative withdrawal from the School of Nursing following full review. Readmission is not guaranteed to these students.

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. Readmission will not be considered for any student dismissed from the School of Nursing who obtained a “D” or “F” from two (2) nursing courses or who was dismissed from a Professional Role Implementation Course due to safety, ethical, or dishonesty issues. Exceptions to this policy will be considered by the Undergraduate Admissions Committee on an individual basis.

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 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>University Core (State Minimum Core) See Page 40</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

University of Arkansas, Fayetteville
English (6 hours)
  ENGL 1013 English Composition I
  ENGL 1023 English Composition II

Mathematics (3 hours)
  MATH 1203 College Algebra

Sciences with Labs (8 hours) must include 4 hours of CHEM including a lab
  *BIOL 2443/2441L Human Anatomy

Fine Arts/Humanities (6 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

3 hours Core History/Government

Social Sciences (9 hours)
  Must include HESC 1403 Lifespan Development

Additional General Studies
  *ENGL 2003 Advanced Composition (unless exempt)
  EDFD 2403 Statistics in Nursing, or PSYC 2013 Introduction to Statistics for Psychiatry, or STAT 2303 Principles of Statistics
  *BIOL 2013/2011L General Microbiology
  NURS 2012 Nursing Informatics
  NURS 2032 Therapeutic Comm.
  *9-12 elective hours (as needed)
  *BIOL 1543/1541L is a prerequisite for BIOL 2013/2011L and BIOL 2443/2441L and may be used as part of the elective hours.

Professional Nursing Program

Role Development (Level I)
  NURS 3212 Teaching and Health Promotion
  NURS 3313 Pharmacology in Nursing
  NURS 3314 Pathophysiology
  NURS 3321L Health Assessment
  NURS 3422 Nursing Concepts: Foundations of Professional Practice
  NURS 3424 Professional Role Implementation I: Caregiver

Role Concentration (Level II)
  NURS 3634 Nursing Concepts: Adult Health and Illness
  NURS 3643 Professional Role Implementation II: Caregiver
  NURS 3742 Nursing Concepts: Mental Health/Illness
  NURS 3752 Professional Role Implementation III: Caregiver
  NURS 3841L Professional Nursing Skills: Advanced
  NURS 3842 Research in Nursing
  NURS 4154 Nursing Concepts: Children and Family
  NURS 4164 Professional Role Implementation IV: Teacher
  NURS 4242 Management in Nursing
  NURS 4263 Nursing Concepts: Older Adult Health and Illness
  NURS 4273 Professional Role Implementation V: Manager

Role Synthesis (Level III)
  NURS 4443 Nursing Concepts: Critical Care
  NURS 4453 Professional Role Implementation VI: Role Synthesis
  NURS 4603 Nursing Concepts: Community
  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 since the program is admissions-based. There is no guarantee that a student meeting the minimal GPA requirement will be admitted. Please refer to the College of Education and Health Professions Web site at http://nurs.uark.edu/index.htm for specific information related to the admission criteria.

HEALTH SCIENCE, KINESIOLOGY, RECREATION, AND DANCE

Sharon Hunt
Department Head
306 HPER Building
479-575-2857
sghunt@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 337 FOR DANCE ACTIVITY (DEAC) COURSES

HEALTH SCIENCE (HLSC)

• Professor Jones (C.)
• Assistant Professors Hammig, Henry
• Clinical Assistant Professor Williams
• Visiting Assistant Professors Mink, Rausch, 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, nonprofit organizations, community organizations, corporations, and other places of occupation. Graduates of this program should be well prepared to enter the work force 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 124 semester hours is required for graduation in the major of health science.
Curriculum for a Major in Health Science

University Minimum Core (State Minimum Core) See page 40

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-36*</td>
<td>English (6-9 hours)</td>
</tr>
<tr>
<td></td>
<td>ENGL 1013 Composition I</td>
</tr>
<tr>
<td></td>
<td>ENGL 1023 Composition II</td>
</tr>
<tr>
<td>3</td>
<td>Mathematics (3 hours)</td>
</tr>
<tr>
<td></td>
<td>MATH 1203 College Algebra or higher, depending on specific concentration requirements</td>
</tr>
<tr>
<td>8</td>
<td>Science (8 hours)</td>
</tr>
<tr>
<td></td>
<td>BIOL 1543/1541L Principles of Biology</td>
</tr>
<tr>
<td></td>
<td>*CHEM 1103/1110L University Chemistry I and lab or CHEM 1123/1121L University Chemistry II and lab or CHEM 1074/1071L Fundamentals of Chemistry and lab</td>
</tr>
<tr>
<td>6</td>
<td>Fine Arts/Humanities (6 hours)</td>
</tr>
<tr>
<td></td>
<td>See page 40 for listing of approved courses</td>
</tr>
<tr>
<td>3</td>
<td>U.S. History (3 hours)</td>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td>9</td>
<td>Social Sciences (9 hours)</td>
</tr>
<tr>
<td></td>
<td>PSYC 2003 General Psychology</td>
</tr>
<tr>
<td></td>
<td>SOCI 2013 General Sociology</td>
</tr>
<tr>
<td>3</td>
<td>3 hours Social Science core elective</td>
</tr>
<tr>
<td>10-13**</td>
<td>Required general studies for the Health Science Major</td>
</tr>
<tr>
<td></td>
<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). If the student exempts from ENGL 2003, three additional credit hours of electives must be taken to meet the graduation credit-hour requirements.</td>
</tr>
<tr>
<td>0-3</td>
<td>Literature Elective (3 hours)</td>
</tr>
<tr>
<td></td>
<td>COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td></td>
<td>HLSC 1103 Personal Health and Safety</td>
</tr>
<tr>
<td></td>
<td>PEAC 1621 Fitness Concepts</td>
</tr>
<tr>
<td>76-79*</td>
<td>Health Science Major Requirements</td>
</tr>
<tr>
<td></td>
<td>HESC 1213 Nutrition in Health</td>
</tr>
<tr>
<td></td>
<td>HLSC 1203 Prevention of Drug Abuse</td>
</tr>
<tr>
<td></td>
<td>HLSC 1303 Introduction to Human Sexuality</td>
</tr>
<tr>
<td></td>
<td>HLSC 2613 Foundation of Community Health</td>
</tr>
<tr>
<td></td>
<td>HLSC 2662 Terminology/Health Professions</td>
</tr>
<tr>
<td></td>
<td>HLSC 3633 First Responder-First Aid</td>
</tr>
<tr>
<td></td>
<td>HLSC 3643 Community Health Plan/Promotion</td>
</tr>
<tr>
<td></td>
<td>HLSC 3663 Principles/Practice of Mental Health</td>
</tr>
<tr>
<td></td>
<td>HLSC 3683 Health Care Consumerism</td>
</tr>
<tr>
<td></td>
<td>HLSC 404V Community Health Preceptorship (6 hours)</td>
</tr>
<tr>
<td></td>
<td>HLSC 4603 Application of Health Behavior Theories for Health Education</td>
</tr>
<tr>
<td></td>
<td>HLSC 4623 Human Diseases</td>
</tr>
<tr>
<td></td>
<td>JOUR 1033 Fundamentals of Journalism or ENGL 3053 Technical and Report Writing</td>
</tr>
<tr>
<td></td>
<td>BIOL 2013/2011L General Microbiology</td>
</tr>
<tr>
<td></td>
<td>PSYC 3093 Developmental Psychology</td>
</tr>
<tr>
<td></td>
<td>PSYC Elective except PSYC 2003 (3 hours)</td>
</tr>
<tr>
<td></td>
<td>BIOL 1603/1601L Principles of Zoology and lab, or BIOL 1613/1611L Plant Biology and lab</td>
</tr>
<tr>
<td></td>
<td>BIOL 2213/2211L Human Physiology and lab</td>
</tr>
<tr>
<td></td>
<td>BIOL 2443/2441L Human Anatomy and lab</td>
</tr>
<tr>
<td></td>
<td>SCWK 3163 On Death and Dying</td>
</tr>
<tr>
<td></td>
<td>PSYC 4023 Adulthood and Aging, or SCWK 4183 The Elderly Citizen</td>
</tr>
<tr>
<td></td>
<td>*7-10 hours of health science electives as needed (adviser approved)</td>
</tr>
<tr>
<td>124</td>
<td>Total Health Science degree</td>
</tr>
</tbody>
</table>

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.

<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</td>
</tr>
<tr>
<td>3</td>
<td>MATH 1203 College Algebra (or higher)</td>
</tr>
<tr>
<td>3</td>
<td>U.S. History</td>
</tr>
<tr>
<td>3</td>
<td>†Social Science (except PSYC 2003 and SOCI 2013–recommend HESC 2413)</td>
</tr>
<tr>
<td>4</td>
<td>BIOL 1543/1541L Principles of Biology with lab</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td>Semester Hours</td>
</tr>
<tr>
<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>†Fine Arts or Humanities (recommend PHIL 2103)</td>
</tr>
<tr>
<td>3</td>
<td>HLSC 1103 Personal Health and Safety</td>
</tr>
<tr>
<td>1</td>
<td>PEAC 1621 Fitness Concepts</td>
</tr>
<tr>
<td>3</td>
<td>HLSC 2613 Foundations of Community Health</td>
</tr>
<tr>
<td>3</td>
<td>HESC 1213 Nutrition in Health</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td>Semester Hours</td>
</tr>
<tr>
<td><strong>Fall Semester Year 2</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>HLSC 1203 Prevention of Drug Abuse or HLSC 3643 Community Health Planning and Promotion</td>
</tr>
<tr>
<td>3</td>
<td>JOUR 1033 Fundamentals of Journalism or ENGL 3053 Technical and Report Writing</td>
</tr>
<tr>
<td>4-5</td>
<td>CHEM 1103/1110L University Chemistry I with lab or CHEM 1132/1121L University Chemistry II with lab or CHEM 1074/1071L Fundamentals of Chemistry with lab</td>
</tr>
<tr>
<td>3</td>
<td>PSYC 2003 General Psychology</td>
</tr>
<tr>
<td>0-3</td>
<td>ENGL 2003 Advanced Composition (or Exempt)</td>
</tr>
<tr>
<td><strong>13-17</strong></td>
<td>Semester Hours</td>
</tr>
<tr>
<td><strong>Spring Semester Year 2</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>HLSC 2662 Terminology for the Health Professions</td>
</tr>
<tr>
<td>3</td>
<td>SOCI 2013 General Sociology</td>
</tr>
<tr>
<td>3</td>
<td>HLSC 1303 Introduction to Human Sexuality</td>
</tr>
<tr>
<td>3</td>
<td>COMM 1313 Fundamentals of Communications</td>
</tr>
<tr>
<td>4</td>
<td>BIOL 1603/1601L General Zoology with lab or BIOL 1613/1611L Plant Biology with lab</td>
</tr>
<tr>
<td>0-3</td>
<td>Health Science elective (Adviser approved)</td>
</tr>
<tr>
<td><strong>15-18</strong></td>
<td>Semester Hours</td>
</tr>
<tr>
<td><strong>Fall Semester Year 3</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>HLSC 3643 Community Health Planning and Promotion or HLSC 1203 Prevention of Drug Abuse</td>
</tr>
<tr>
<td>3</td>
<td>BIOL 4623 Human Diseases or HLSC 3663 Principles and Practices of Mental Health</td>
</tr>
<tr>
<td>3</td>
<td>PSYC 3093 Developmental Psychology</td>
</tr>
<tr>
<td>4</td>
<td>BIOL 2013/2011L General Microbiology with lab</td>
</tr>
<tr>
<td>3</td>
<td>Fine Arts or Humanities (recommend HUMN 2003)</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td>Semester Hours</td>
</tr>
<tr>
<td><strong>Spring Semester Year 3</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>HLSC 3683 Health Care Consumerism or HLSC 4603 Applied Health Behavior Theory in Health Education</td>
</tr>
</tbody>
</table>
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 to enter the senior block. 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 3353, and KINS 3553, and meet the appropriate concentration requirements. A minimum of 124 semester hours is required for graduation in the major of kinesiology.

### Curriculum for all Majors in Kinesiology

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>University Core (State Minimum Core) See page 40</td>
</tr>
<tr>
<td>9-10</td>
<td>Required University Core for Kinesiology major</td>
</tr>
<tr>
<td></td>
<td>PSYC 2003 General Psychology</td>
</tr>
<tr>
<td>3</td>
<td>Required general studies for Kinesiology major</td>
</tr>
<tr>
<td></td>
<td>COMM 1313 Fundamentals of Communication</td>
</tr>
<tr>
<td>9</td>
<td>RSCH 3000 Health Science Research Methods (for exercise science concentrations II and III)</td>
</tr>
<tr>
<td>9</td>
<td>KINS 3153 Exercise Physiology (for P-12 concentration I)</td>
</tr>
<tr>
<td>9</td>
<td>KINS 3003 Exercise Physiology (for P-12 concentration II)</td>
</tr>
<tr>
<td>9</td>
<td>KINS 3203 Exercise Physiology (for P-12 concentration III)</td>
</tr>
</tbody>
</table>

### Kinesiology Core for all Kinesiology Majors

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>KINS 2223 Motor Development</td>
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<tr>
<td>9</td>
<td>KINS 3153 Exercise Physiology (for exercise science concentrations II and III)</td>
</tr>
<tr>
<td>9</td>
<td>KINS 3163 Exercise Physiology: Theory and Application or KINS 3153 Exercise Physiology (for P-12 concentration I)</td>
</tr>
<tr>
<td>9</td>
<td>KINS 3553 Mechanics of Human Movement</td>
</tr>
</tbody>
</table>

### Concentration I: P-12 Teaching Physical Education/Wellness & Leisure Relationship

<table>
<thead>
<tr>
<th>Hours</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>68-71</td>
<td>BIOL 1543/1541L Principles of Biology (hours counted in the state minimum core)</td>
</tr>
<tr>
<td></td>
<td>BIOL 2443/2441L Human Anatomy or adviser-approved A&amp;P 1 (hours could be counted in the state minimum core)</td>
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<tr>
<td></td>
<td>PHED 1003 The P.E. Profession: An Overview</td>
</tr>
<tr>
<td></td>
<td>PHED 2013 Teaching Progressions/Assessment of Basic Skills</td>
</tr>
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<td>PHED 2023 Teaching Progressions/Assessment of Advanced Skills</td>
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<td>PHED 3001 Practicum I</td>
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<tr>
<td></td>
<td>PHED 3002 Teaching and Leading Outdoor Recreation and Experiential Activities</td>
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<tr>
<td></td>
<td>PHED 3061 Teaching Stunts/Tumbling</td>
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<tr>
<td></td>
<td>PHED 3032 Teaching Rhythms</td>
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<td>PHED 3043 Teaching Fitness</td>
</tr>
<tr>
<td></td>
<td>PHED 3074 Secondary Physical Education</td>
</tr>
<tr>
<td></td>
<td>PHED 3203 Principles and Problems of Coaching</td>
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<tr>
<td></td>
<td>PHED 3373 Elementary Physical Education</td>
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<td></td>
<td>PHED 3702 Measurement Concepts in Kinesiology</td>
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<td>PHED 3903 PE for Special Populations</td>
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<tr>
<td></td>
<td>KINS 3373 Phil/Soci Impact on Kinesiology</td>
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<td></td>
<td>KINS 4413 Org/Man/Mkt Skills for Kinesiology</td>
</tr>
<tr>
<td></td>
<td>HLSC 3633 First Responder &amp; First Aid</td>
</tr>
<tr>
<td></td>
<td>CIED 3033 Classroom Learning Theory</td>
</tr>
<tr>
<td></td>
<td>CNED 4003 Classroom Human Relations Skills or CNED 3053 The Helping Relationship</td>
</tr>
</tbody>
</table>

### 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 College GPA or 2.75 KINS/PHED Teacher Education Classes; all parts of Praxis I passed; Completed or registered to take the Praxis II content knowledge exam.

- PHED 4023 Class Management
- PHED 407V Physical Education Teaching Internship (9 hrs)
- PHED 4263 Professional Issues in Teaching Physical Education
- PHED 4731 Senior Seminar
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 KINSSS's P-12 concentration, 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.

The following two concentrations are in the area of Exercise Science

**Exercise Science Core for Concentrations II and III**

- BIOL 1543/5441L Principles of Biology (hours counted in the University minimum core)
- BIOL 2433/2441L Human Anatomy (hours counted in the University minimum core)
- BIOL 2213/2211L Human Physiology
- CHEM 1103/1101L University Chemistry I
- CHEM 1123/1121L University Chemistry II
- PHYS 2013/2011L College Physics I
- PSYC 3023 Abnormal Psychology
- HESC 1213 Nutrition in Health
- CNEI 3053 The Helping Relationship
- KINS 2733 Seminar in Exercise Science
- KINS 3533 Laboratory Techniques
- KINS 405V Independent Study (3 hrs.) or KINS 4903 Internship or HNED 4003H Honors Education Thesis/Project if Honors student
- KINS 4323 Analytical Basis/Movement
- KINS 4833 Exercise Appl/Spec Pops

**Concentration II: Exercise Science – Pre-Professional Science**

**Additional requirements**

- BIOL 2013/2011L General Microbiology/Lab
- PSYC 2013 Intro to Statistics for Psychology or STAT 2303 or SOCI 3303 or adviser-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 with lab
- CHEM 2613/2611L Organic Physiological Chemistry with lab or CHEM 3603/3601L Organic Chemistry I with lab

**Electives** - Select from below or others with adviser approval

- CHEM 3613/3611L 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 and Report Writing
- HESC 2203 Nutrition for Exercise and Sport
- PSYC 4183 Behavioral Neuroscience

**Concentration III: Applied Exercise Science**

**Exercise Science Core** (see above) 40

**Additional requirements**

- MATH 1203 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 adviser approval

- KINS 2223 Motor Development
- PSYC 2003 General Psychology
- Literature Elective
- FA/Humanities
- BIOL 2433/2441L Human Anatomy with lab or adviser-approved A&P 1 (which meets State Minimum Core)

15 Semester Hours

**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

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>ENGL 1013</td>
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<td>Social Science (except PSYC 2003)</td>
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<td>BIOL 1543/1541L Principles of Biology w/Lab</td>
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<td>3</td>
<td>HLSC 1103 Personal Health and Safety</td>
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<td>PHED 1003</td>
<td>The PE. Profession: An Overview</td>
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<td>Semester Hours</td>
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<td>Composition II</td>
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<td>3</td>
<td>MATH 1203</td>
<td>College Algebra (or higher)</td>
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<td>Fundamentals of Communication</td>
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<td>HUS. History or American Nat. Government</td>
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<td>PHED 2015</td>
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<td>KINS 2223</td>
<td>Motor Development</td>
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<td>General Psychology</td>
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<td>Literature Elective</td>
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<td>FA/Humanities</td>
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<td>BIOL 2433/2441L Human Anatomy with lab or adviser-approved A&amp;P 1 (which meets State Minimum Core)</td>
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<td>Semester Hours</td>
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<td>PHED 3032</td>
<td>Teaching Rhythms</td>
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<td>3</td>
<td>PHED 2023</td>
<td>Teaching Progression and Assessment/Adv. Skills</td>
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<td>ENGL 2003</td>
<td>Advanced Composition (or exemption)</td>
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<tr>
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<td>PHED 3573</td>
<td>Elementary Physical Education</td>
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<td>3</td>
<td>PHED 3903</td>
<td>Physical Education for Special Populations</td>
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</tr>
<tr>
<td>3</td>
<td>CNEI 3053</td>
<td>Classroom Human Relationship Skills or CNEI 3053 The Helping Relationship</td>
<td></td>
</tr>
</tbody>
</table>
### College of Education and Health Professions

#### Fall Semester Year 3
- **PHED 3074** Secondary Physical Education (must take with PHED 3702)
- **PHED 3702** Measurement in Kinesiology (must take with PHED 3074)
- **PHED 3043** Teaching Fitness
- **PHED 3022** Teaching Stunts and Tumbling
- **KINS 3353** Mechanics of Human Movement
- **HLSC Elective**

**15 Semester Hours**

#### Spring Semester Year 3
- **PHED 3001** Practicum
- **PHED 3203** Prin. of Coaching
- **KINS 4413** Org/Man/Mkt Skills for the KINS Professional
- **HLSC 3633** First Responder & First Aid
- **HLSC Elective**

**15 Semester Hours**

#### Fall Semester Year 4
- **PHED 4023** Class Management
- **PHED 407V** Physical Education Teaching Internship
- **PHED 4263** Professional Issues in Physical Ed.
- **PHED 4731** Senior Seminar
- **HLSC Elective**

**16 Semester Hours**

### Pre-Professional Science Concentration II

#### Fall Semester Year 1
- **ENGL 1013** Composition I
- **CHEM 1103/1101L** University Chemistry I with lab
- **PEAC 1621** Fitness Concepts
- **†Fine Arts or Humanities**
- **BIOL 1543/1541L** Principles of Biology with lab

**17 Semester Hours**

#### Spring Semester Year 1
- **ENGL 1023** Composition II
- **MATH 2043** Survey of Calculus; Math 2554 Calculus I
- **†Fine Arts or Humanities**
- **CHEM 1123/1121L** University Chemistry II with lab
- **†Social Science (except PSYC 2003)**

**16-17 Semester Hours**

#### Fall Semester Year 2
- **COMM 1313** Fundamentals of Communications

### Applied Exercise Science Concentration III

#### Fall Semester Year 1
- **ENGL 1013** Composition I
- **CHEM 1103/1101L** University Chemistry I w/Lab
- **MATH 1203** College Algebra
- **†Fine Arts or Humanities**
- **BIOL 1543/1541L** Principles of Biology w/Lab

**17 Semester Hours**

#### Spring Semester Year 1
- **ENGL 1023** Composition II
- **MATH 1213** Plane Trigonometry
- **†Fine Arts or Humanities**
- **CHEM 1123/1121L** University Chemistry II w/Lab

**17 Semester Hours**
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.

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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 select the 15-hour minor. This minor could enhance future career opportunities.

Curriculum for a Major in Recreation

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<thead>
<tr>
<th>Required General Studies for the Recreation Major</th>
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<tbody>
<tr>
<td>3-hour Literature/History/Western Civilization elective</td>
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<tr>
<td>COMM 1313 Fundamentals of Communication</td>
<td></td>
</tr>
<tr>
<td>HLSC 1002 Wellness Concepts</td>
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<tr>
<td>PEAC 1621 Fitness Concepts</td>
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</tr>
<tr>
<td>Recreation Core</td>
<td>51</td>
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<tr>
<td>RECR 1003 Professional Foundations of Leisure</td>
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</tr>
<tr>
<td>RECR 1023 Recreation and Natural Resources</td>
<td></td>
</tr>
</tbody>
</table>

RECREATION (RECR)

- Professors Hunt, Moiseichik
- Associate Professor Langsner
- Assistant Professors Benton, Ditmore

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,
RECR 201V Recreation Practicum (three 1-credit experiences)
RECR 2063 Commercial Recreation and Tourism Enterprise
RECR 2093 Inclusive and Special Recreation
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
(Selected with help from a recreation faculty adviser.) 18-21
Adviser approved electives 8-11
Total Hours for Recreation degree 124

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 College of Education and Health Profession’s Web site at http://coehp.uark.edu/.

Curriculum Requirements for a Minor in Recreation
15 hours to include:
RECR 1003 Professional Foundations of Leisure
RECR 2813 Leadership Techniques in Recreation
RECR 3833 Program Planning in Recreation
RECR 3873 Sport and Recreation Risk Management
RECR elective course selected to complement major (see adviser)

SEE PAGE 384 FOR RECREATION (RECR) COURSES
SEE PAGE 378 FOR PHYSICAL EDUCATION ACTIVITIES (PEAC) COURSES

COMMUNICATION DISORDERS (CDIS)

201 Speech and Hearing Clinic
479-575-4509
- Professor Shadden
- Associate Professors Toner, Hagstrom
- Assistant Professor Baker
- Visiting Assistant Professor Agan
- 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 238.

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.
- 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

University Core (State Minimum Core) 35
Of which Communications Disorders requires the following specific courses:
BIOL 1543/1541L
PSYC 2003
And choose one of the following:
PHYS 1023/1021L
PHYS 2013/2011L
CHEM 1074/1071L

Additional General Studies course requirements for Communication Disorders 11
ENGL 2003 Advanced Comp must be taken, no exemption of this course is allowed except for Honors students
WLIT 1113
COMM 1313 Fundamentals of Communication
HLSC 2662 Terminology for the Health Professions

Communication Disorders Major Requirements 41
CDIS 2253 Introduction to Communicative Disorders
CDIS 3103 Introduction to Audiology
CDIS 3124 Normal Phonological and Articulatory Processes
CDIS 3203 Articulation Disorders
CDIS 3213 Anatomy and Physiology of Speech and Hearing Mechanisms
CDIS 3224 Language Development in Children
CDIS 3233 Introduction to Clinical Practice
CDIS 4133 Intro. to Aural Rehab
CDIS 4213 Intro. to Speech and Hearing Science
CDIS 4183 Clinical Assessment of Speech and Language Disorders
CDIS 4223 Language Disorders in Children
CDIS 4253 Neurological Bases of Communication
CDIS 4273 Communication Behavior and Aging

Electives 36-37
Total for Communication Disorders 124

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.

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<tr>
<th>Fall Semester Year 1</th>
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<tbody>
<tr>
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<td>3 MATH 1203 College Algebra (or higher)</td>
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<td>4 BIOL 1543/1541L Principles of Biology w/lab</td>
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<tr>
<td>3 U.S. History/Government</td>
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<td>6 Electives</td>
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<tr>
<td>3 WLIT 1113 World Literature</td>
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<td>3 CDIS 2253 Intro to Communicative Disorders</td>
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<td>3 PSYC 2003 General Psychology</td>
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</thead>
<tbody>
<tr>
<td>2 HLC 2662 Terminology for the Health Professions</td>
<td></td>
</tr>
<tr>
<td>3 †Social Science (except PSYC 2003)</td>
<td></td>
</tr>
<tr>
<td>3 COMM 3133 Fundamentals of Communications</td>
<td></td>
</tr>
<tr>
<td>3 Fine Arts/Humanities</td>
<td></td>
</tr>
<tr>
<td>4-5 Electives</td>
<td></td>
</tr>
<tr>
<td>15-16 Semester hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester Year 3</th>
<th>3 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 CDIS 3124 Normal Phonology &amp; Articulation</td>
<td></td>
</tr>
<tr>
<td>3 CDIS 3213 Anatomy of Speech and Hearing Mechanism</td>
<td></td>
</tr>
<tr>
<td>5 Electives</td>
<td></td>
</tr>
<tr>
<td>16 Semester hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 3</th>
<th>3 Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 CDIS 3203 Articulation Disorders</td>
<td></td>
</tr>
<tr>
<td>3 CDIS 3233 Introduction to Clinical Practice</td>
<td></td>
</tr>
<tr>
<td>3 CDIS 4223 Language Disorders in Children</td>
<td></td>
</tr>
</tbody>
</table>

Fall Semester Year 4

<table>
<thead>
<tr>
<th>15 Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 CDIS 3103 Intro. To Audiology</td>
</tr>
<tr>
<td>3 CDIS 4253 Neurological Bases of Communication</td>
</tr>
<tr>
<td>3 CDIS 4273 Communication Behavior and Aging</td>
</tr>
<tr>
<td>6 Electives (Recommend: CDIS 4001 Clinical Practicum: Undergraduate)</td>
</tr>
</tbody>
</table>

Spring Semester Year 4

<table>
<thead>
<tr>
<th>124 Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 CDIS 4133 Intro. to Aural Rehab.</td>
</tr>
<tr>
<td>3 CDIS 4213 Intro to Speech and Hearing Science</td>
</tr>
<tr>
<td>3 CDIS 4183 Assessment of Speech and Language Disorders</td>
</tr>
<tr>
<td>6 Electives (Recommend: CDIS 4001 Clinical Practicum: Undergraduate)</td>
</tr>
</tbody>
</table>

† Must meet University Core.

SEE PAGE 324 FOR COMMUNICATION DISORDERS (CDIS) COURSES

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 participating in the 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 Hours

<table>
<thead>
<tr>
<th>University Core Requirements</th>
<th>35-38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced composition requirement: no credit if exempted, three additional credits of electives required</td>
<td></td>
</tr>
</tbody>
</table>
HRDV General Education Requirements

- 3 hours Oral Communication: Fundamentals, public speaking, or similar course
- 3 hours Health/Wellness/Fitness/Safety
- 3 hours Computers/Media: application software courses, or exempted with documented proficiency
- 8 hours of electives or as needed to total 55 hours/credits of General Education and University Core

HRDV Technical Requirements

Required: HRDV 3403 Employment Law in HRD plus any combination of the following:
- Appropriate occupation-related credits from UA coursework
- Transfers from accredited institutions of higher learning (within limits), or College Level Examination Program (CLEP) exams

Credit by advanced standing examination for job knowledge as measured by selected National Occupational Competency Testing Institute (NOCTI) assessments, transcribed as CATE 200V-204V Work Experience credit

Additional HRDV 4603-4693 HRD Practicum coursework, up to 12 additional hours, beyond the HRDV Practicum requirement described below HRDV 3503 Workforce Behavior

HRDV 450V Experiential Learning. Credit for certain occupational training or professional certifications based on either the Council for the Advancement of Experiential Learning (CAEL) format or American Council on Education (ACE) guidelines. Tuition is charged for these credit hours.

Prerequisite: HRDV 3503 Workforce Behavior

HRDV Professional Courses: offered in a set rotation of Web-based or weekend classes delivered to selected host sites by distance learning starting each fall: HRDV 3113, HRDV 3123, HRDV 3133, HRDV 3213, HRDV 4113, HRDV 4133, HRDV 4213, HRDV 4233

HRDV Practicum Requirements

Students must complete four Practicums of their choice from among the following: HRDV 4603, HRDV 4613, HRDV 4623, HRDV 4633, HRDV 4643, HRDV 4653, HRDV 4663, HRDV 4673, HRDV 4683, or HRDV 4693

Total

124

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 Appropriate HRDV Technical credits</td>
</tr>
<tr>
<td>53 Semester Hours</td>
</tr>
</tbody>
</table>

Fall Semester Year 1

| 3 HRDV 3113 Intro to HRD (Fridays, CIV classroom-based) |
| 3 HRDV 4113 Theories/Principles of Adult Education (Web-based) |
| 6 HRDV General Education courses as required |
| Take all, if any, NOCTI tests needed and approved by HRDV adviser |
| Take Advanced Composition Exemption exam if desired |
| 12 Semester Hours |

Spring Semester Year 1

| 3 HRDV 3133 Communication in HRD (Fridays, CIV classroom-based) |
| 3 HRDV 4113 Skills and Strategies (Web-based) |
| 6 HRDV General Education courses as required |
| 14 Credit by examination(s) for job knowledge in semester 1 awarded |
| Begin ENGL 2013 Essay Writing by Independent Study (unless exemption approved) |
| 26 Semester Hours |

Summer Semester Year 1

| 3 ENGL 2013 Essay Writing by correspondence completed (unless exemption approved) |
| 3 HRDV 3403 Employment Law* or HRDV Practicum 1** |
| 3 HRDV 3503 Workforce Behavior*** |
| 9 Semester Hours |

Fall Semester Year 2

(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.)

| 3 HRDV 4233 Leadership in HRD (Web-based) |
| 3 HRDV 4213 Professional Development (Saturdays, CIV classroom-based) |
| 3 HRDV Practicum 1** or HRDV 3403 Employment Law* |
| 3 HRDV Practicum 2 |
| 12 Semester Hours |

Spring Semester Year 2

| 3 HRDV 3123 Needs Assessment and Evaluation (Web-based) |
| 3 HRDV 4133 Group Dynamics (Saturdays, CIV classroom-based) |
| 3 HRDV Practicum #3 |
| 3 HRDV Practicum #4 |
| 12 Semester Hours |
| 124 Total Hours |

* 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 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 HRDV academic adviser.
MISSION AND OBJECTIVES

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.

Five 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 UAFS faculty. The degree is awarded by UAF, but all classes are offered at the UAFS 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 off-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 advisor 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.

Students 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 semesters in the same academic year must receive prior approval from their Departmental Co-op Representative.

Dual-Degree Transfer Programs
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 dual-degree programs that lead 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 two to three years at the partner university and then completes an engineering curriculum in two to three 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. More information is available at http://www.engr.uark.edu/transfer.php

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 or go to http://www.uark.edu/registrar/TransferCredit/.

COLLEGE SCHOLARSHIPS

The College of Engineering awards numerous scholarships, most scholarships are based primarily on academic performance. However, scholarships may also 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. College and departmental scholarships are not available for entering freshmen. Students must be admitted to the University of Arkansas and enrolled in 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 honor societies 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, it 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
- Materials Research 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 a 28 composite score on the ACT; entering transfer students must have at least a 3.5 GPA on their transfer work. Students not initially qualifying for the Engineering Honors Program are eligible if they earn a 3.5 cumulative GPA at the University of Arkansas.

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 receive Latin distinction at graduation, a student must hold a cumulative GPA of 3.50 or better (for all course work, computed at graduation).

Deadlines related to the Honors Program are as follows:
1. A Thesis/Project Proposal is to be completed prior to a student earning 90 semester hours.
2. Honors College Graduation Certification is to be completed prior to one week before the last day of classes of the student’s last semester.

**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>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td>ENGL 1013 Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 1023 Technical Composition II</td>
<td></td>
</tr>
<tr>
<td>(ENGL 1023 Composition II may be taken in lieu of Technical Composition II)</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2554 Calculus I</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 2054 University Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYS 2074 University Physics II or CHEM 1123, 1121L University Chemistry II</td>
<td></td>
</tr>
<tr>
<td>U.S. History or Government</td>
<td>3</td>
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<tr>
<td>HIST 2003 History of American People to 1877</td>
<td></td>
</tr>
<tr>
<td>HIST 2013 History of American People 1877 to Present</td>
<td></td>
</tr>
<tr>
<td>PLSC 2003 American National Government</td>
<td></td>
</tr>
<tr>
<td>Fine Arts, Humanities and Social Sciences</td>
<td></td>
</tr>
<tr>
<td>Fine Arts and Humanities</td>
<td>6</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>9</td>
</tr>
<tr>
<td>Six hours of Fine Arts, Humanities and Social Sciences must be upper level courses (3000-4000 level). A list of approved courses is available in departmental offices.</td>
<td></td>
</tr>
</tbody>
</table>

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 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. 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 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 for 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.)
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 advisor. 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 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 451VH, Honors Thesis
- BIOL 4233 Genomics and Bioinformatics
- KINS 3353 Mechanics of Human Movement
- ELEG 2904 Digital Design
- HESC 3204 Nutrition for Health Professionals and Educators

**Biotechnology Engineering**

**Design Electives:**
- BENG 4703 Biotechnology Engineering
- BENG 4123 Biosensors and Bioinstrumentation

**Technical Electives:**
- BENG 4113 Risk Analysis for Biological Systems
- BENG 451VH Honors Thesis
- FDSC 4304 Food Chemistry
- FDSC 4124 Food Microbiology
- FDSC 3103 Principles of Food Proc.
- BIOL 4233 Microbial Genetics
- BIOL 4313 Molecular Cell Biology
- CHEM 3453/3451L Elements of Physical Chemistry
- MEEG 4413 Heat Transfer
- CHEG 3153 Non-equilibrium Mass Transfer
- CHEG 4423 Auto. Process Control
- HESC 3203 Nutrition for Health Professionals and Educators
**Ecological Engineering**

**Design Electives:**
- BENG 4903 Watershed Eco-Hydrology
- BENG 4923 Ecological Engineering Design

**Technical Electives:**
- BENG 4113 Risk Analysis for Biological Systems
- BENG 4803 Precision Agriculture
- BENG 4133 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
- 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNEG 1111</td>
<td>Introduction to Engineering I</td>
</tr>
<tr>
<td>ENGL 1013</td>
<td>Composition I</td>
</tr>
<tr>
<td>CHEM 1103</td>
<td>University Chemistry I</td>
</tr>
<tr>
<td>MATH 2554</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 2564</td>
<td>Calculus II</td>
</tr>
<tr>
<td>CHEM 3603</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>ENGL 1013L</td>
<td>Introduction CAD</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
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### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNEG 1121</td>
<td>Introduction to Engineering II</td>
</tr>
<tr>
<td>ENGL 1023</td>
<td>Technical Composition II</td>
</tr>
<tr>
<td>CHEM 1103</td>
<td>University Chemistry I</td>
</tr>
<tr>
<td>MATH 2554</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 2564</td>
<td>Calculus II</td>
</tr>
<tr>
<td>HUM 1013</td>
<td>Humanities/Social Science Elective</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
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</tr>
</tbody>
</table>

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENG 2612</td>
<td>Biological Engr Design Studio II</td>
</tr>
<tr>
<td>CHEM 3603</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 3601L</td>
<td>Organic Chemistry I Lab</td>
</tr>
<tr>
<td>GNEG 1122</td>
<td>Introduction CAD</td>
</tr>
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<td><strong>Total Semester hours</strong></td>
<td>16</td>
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### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>BENG 2622</td>
<td>Biological Engineering Design Studio III</td>
</tr>
<tr>
<td>MATH 3404</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>CHEM 3613</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM 3611L</td>
<td>Organic Chemistry II Lab</td>
</tr>
<tr>
<td>MEEG 2003</td>
<td>Statics</td>
</tr>
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<td><strong>Total Semester hours</strong></td>
<td>13</td>
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</table>

### Fall Semester Year 3

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BENG 3712</td>
<td>Engineering Properties of Biological Materials</td>
</tr>
<tr>
<td>CHEM 3813</td>
<td>Introduction to Biochemistry</td>
</tr>
<tr>
<td>MEEG 2403</td>
<td>Thermodynamics, or CHEG 2513 Thermodynamics of Single Component Systems</td>
</tr>
<tr>
<td>MEEG 3013</td>
<td>Mechanics of Materials</td>
</tr>
<tr>
<td>CVEG 3213</td>
<td>Hydraulics, or MEEG 3503 Mechanics of Fluids, or CHEG 2133 Fluid Mechanics</td>
</tr>
<tr>
<td>MEEG 3404</td>
<td>Instrumentation in Biological Engr</td>
</tr>
<tr>
<td>BENG 3733</td>
<td>Design elective</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
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</tr>
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</table>

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BENG 3723</td>
<td>Unit Operations in Biological Engr</td>
</tr>
<tr>
<td>BENG 3704</td>
<td>Biological Engineering Design I</td>
</tr>
<tr>
<td>BENG 3733</td>
<td>Transport Phenomena in Biological Systems</td>
</tr>
<tr>
<td>BENG 3734</td>
<td>Design elective</td>
</tr>
<tr>
<td>HUM 3013</td>
<td>Humanities/Social Science Elective</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
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### Fall Semester Year 4

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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BENG 4813</td>
<td>Senior Biological Engineering Design I</td>
</tr>
<tr>
<td>BENG 3733</td>
<td>Transport Phenomena in Biological Systems</td>
</tr>
<tr>
<td>BENG 3734</td>
<td>Design elective</td>
</tr>
<tr>
<td>HUM 3013</td>
<td>Humanities/Social Science Elective</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
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### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BENG 4822</td>
<td>Senior Biological Engr Design II</td>
</tr>
<tr>
<td>HUM 3013</td>
<td>Humanities/Social Science Elective</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

**Total hours:** 128

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*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 Professors Ackerson, Roper
- Assistant Professors Hestekin (C.), Hestekin (J.), Servoss
- Instructor Emeritus Myers
- 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 principally involving chemical and biochemical reactions. 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. Some new applications of the principles of chemical engineering at nanoscales are being made in sustainable energy production and detection of gene mutations, protein configurations, and virus serotypes as well as thermal destruction of cancer cells.

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, students obtain 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 or the professional level, such as for medical school. The chemical engineering program also serves as an excellent preparation for 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.

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>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>0  MATH 2554</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>3  CHEM 1123 University Chemistry I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1  CHEM 1121L University Chemistry I Lab</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3  ENGL 1013 Composition I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3  CHEG 1212L Chemical Engr Lab I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3  HIST 2003 Hist./American People to 1877 (HIST 2013 or PLSC 2003 may be substituted)</td>
<td>3</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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### Spring Semester Year 1

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<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>4  MATH 2564 Calculus II</td>
<td>4</td>
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</tr>
<tr>
<td>3  CHEG 1123 Intro. to Chem Engr II</td>
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</tr>
<tr>
<td>3  ENGL 1025 Composition II</td>
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<td></td>
</tr>
<tr>
<td>2  CHEG 1212L Chemical Engr Lab I</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3  Humanities/social science core elective</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>4  MATH 2574 Calculus III</td>
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</tr>
<tr>
<td>3  CHEM 3603 Organic Chemistry I</td>
<td>3</td>
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</tr>
<tr>
<td>1  CHEM 3601L Organic Chemistry I Lab</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>0  PHYS 2054 University Physics I</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>0  PHYS 2050L University Physics I</td>
<td>0</td>
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<tr>
<td><strong>Total</strong></td>
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<td></td>
</tr>
</tbody>
</table>

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 pursue a B.S.Ch.E. by entering the College through its Freshman Engineering Program. Students enrolled in the Freshman Engineering Program should take CHEM 1123 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.
Spring Semester Year 1

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CHEG 2313</td>
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<td><strong>Semester hours</strong></td>
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Fall Semester Year 1

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<td>Fluid Mechanics</td>
<td>3</td>
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<tr>
<td>CHEG 3523</td>
<td>Thermodynamics of Multicomponent Systems</td>
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Spring Semester Year 2

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<tr>
<td>CHEM 3613</td>
<td>Organic Chemistry I</td>
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<tr>
<td>CHEM 3611L</td>
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<td>PHYS 2074</td>
<td>University Physics II</td>
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<tr>
<td>PHYS 2070L</td>
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<td>CHEG 2133</td>
<td>Fluid Mechanics</td>
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<tr>
<td>CHEG 3523</td>
<td>Thermodynamics of Multicomponent Systems</td>
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<tr>
<td>MEEG 2003</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 3143</td>
<td>Heat Transport</td>
<td>2</td>
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<tr>
<td>CHEG 3232L</td>
<td>Chemical Engr Lab II</td>
<td>3</td>
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<tr>
<td>CHEG 3253</td>
<td>Chem Engr Computer Methods</td>
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<tr>
<td>Humanities/social science core elective</td>
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Spring Semester Year 3

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<tr>
<td>CHEG Elective</td>
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<tr>
<td>MEEG 3013</td>
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<td>CHEG 3333</td>
<td>Chem Engr Reactor Design</td>
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<td>CHEG 3153</td>
<td>Non-Equil Mass Transfer</td>
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Fall Semester Year 4

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<td>Equil Stage Mass Transfer</td>
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<td>CHEG 4143</td>
<td>Chem Engr Design I</td>
<td>3</td>
</tr>
<tr>
<td>CHEG 4813</td>
<td>Chemical Process Safety</td>
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</tr>
<tr>
<td>Technical elective</td>
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<td>3</td>
</tr>
<tr>
<td>Humanities/social science core elective</td>
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</tr>
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<td></td>
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Spring Semester Year 4

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<tr>
<td>CHEG 4443</td>
<td>Chem Engr Design II</td>
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<tr>
<td>ELEG 3903</td>
<td>Electric Circuits and Machines</td>
<td>3</td>
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<tr>
<td>CHEG 4423</td>
<td>Auto Process Control</td>
<td>3</td>
</tr>
<tr>
<td>Technical elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities/social science core elective</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester hours</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

|             | **Total hours**                                  | **132** |

### 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 adviser. 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 Biomedical Engineering Fundamentals
- CHEG 5523 Bioprocessing
- CHEM 3813 Introduction to Biochemistry, or

- CHEM 5813 Biochemistry I, or
- CHEM 5843 Biochemistry II
- BIOL 2323/2321L General Genetics
- CEMB 5911 Seminar in Cellular/Molecular Biology

### Chemical Process Safety

- CHEG 5273 Corrosion Control
- INEG 4223 Occupational Safety and Health Standards
- FDSC 4223 Risk Analysis for Biological Systems
- OMGT 4303 Industrial Safety Administration

### Environmental Engineering

- CHEG 5753 Air Pollution
- CHEG 4263 Environmental Experimental Methodology
- CHEG 4913 Environmental Engineering Thermodynamics
- CHEG 5273 Corrosion Control
- CVEG courses on an approved list available from the department.

### Food Process Engineering

- BENG 4703/4700L Biotechnology 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
- 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 Simulation
- MATH 3083 Linear Algebra

SEE PAGE 325 FOR CHEMICAL ENGINEERING (CHEG) COURSES.
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.

<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>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 Physics I</td>
<td></td>
</tr>
<tr>
<td>0 PHYS 2050L University Physics I Lab</td>
<td></td>
</tr>
<tr>
<td>1 GNEG 1111 Introduction to Engineering I</td>
<td></td>
</tr>
<tr>
<td>15 Semester hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ENGL 1023 Technical Composition II</td>
<td></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, or ELEG 3903 Electric Circuits and Machines. 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 1103 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 completing one of the following coursework sequences: CHEM 3603 and CHEM 3601L Organic Chemistry, GEOL 3514, Structural Geology, BIOL 2013 and BIOL 2011L General Microbiology; or PHYS 2074 and PHYS 2070L University Physics II. As an alternative, students may choose to complete PHYS 2074/2070L University Physics 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 completing CHEM 1123/1121L University Chemistry II. Students are advised that a grade of "C" or better in both CHEM 1123 (University Chemistry I) and CHEM 1121L (University Chemistry I Lab) is required to receive credit for CHEM 1101L (University Chemistry I Lab).

Civil 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 and 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 335 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 Andrews, Apon, Crisp, Deaton, Gauch (J.), Gauch (S.), Li, Panda, 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 lifelong 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 semester, students form teams and develop a project proposal. In the second semester, students develop, implement, and present the final project.

Honors programs are offered in both 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.

Computer Engineering Eight-Semester Degree Program

Fall Semester Year 1

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<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>4 MATH 2554 Calculus I</td>
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<tr>
<td>3 CHEM 1103 University Chemistry I</td>
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<tr>
<td>4 PHYS 2054 University Physics I</td>
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<tr>
<td>1 GNEG 1111 Introduction to Engineering I</td>
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<tr>
<td>3 ENGL 1013 English Composition</td>
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Spring Semester Year 1

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<tbody>
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<tr>
<td>4 Freshman Science elective*</td>
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<td>3 Social Science elective</td>
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<tr>
<td>1 GNEG 1121 Introduction to Engineering II</td>
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Fall Semester Year 2

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<tr>
<td>3 CSCE 2114 Digital Design</td>
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<tr>
<td>3 Discrete Math</td>
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15 Semester hours
### Computer Science Eight-Semester Degree Program

<table>
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<tr>
<th>Semester Year</th>
<th>Course Codes and Titles</th>
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<td>CSCE 2114 Computer Organization</td>
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<tr>
<td>3</td>
<td>CSCE 3953 System Synthesis and Modeling</td>
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<td>CSCE 3193 Programming Paradigms</td>
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<td>PHIL 3103 Ethics &amp; the Professions</td>
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<td>4</td>
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<td>Semester hours</td>
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<tr>
<td><strong>Spring Semester Year 3</strong></td>
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<tr>
<td>3</td>
<td>CSCE 3613 Operating Systems</td>
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<td>CSCE 3513 Software Engineering</td>
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</tr>
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<td>3</td>
<td>CSCE 4561 Capstone I</td>
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<td>CSCE 4114 Embedded Systems</td>
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</tr>
<tr>
<td>3</td>
<td>Humanities/social sciences elective (3000+)</td>
</tr>
<tr>
<td>15</td>
<td>Semester hours</td>
</tr>
<tr>
<td>126</td>
<td>Total hours</td>
</tr>
</tbody>
</table>

* 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

### 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.):

The requirements and semester plan for the Computer Science B.A. degree are listed in the Fulbright College chapter.

Requirements for a Minor in Computer Science:

SEE PAGE 333 FOR COMPUTER SCIENCE AND COMPUTER ENGINEERING (CSCE) COURSES.

ELECTRICAL ENGINEERING (ELEG)
Sami El-Ghazaly
Head of the Department
3217 Bell Engineering Center
479-575-3009
- Distinguished Professors El-Ghazaly, Vasundara Varadan, Vijay Varadan
- Professors Ang, Balda, Manasreh, Mantoosh, Martin, Naseem
- Associate Professors Brown (R.L.), El-Shenawee, McCann
- Assistant Professors Ji, Yu, Wu
- Distinguished Professor Emeritus Brown, Yeargan
- University Professor Emeritus Schmitt
- Professors Emeritus Jones, Mix, Schaper, Stephenson, Waite, Webb
- Associate Professor Emeritus Caldwell, Gattis

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 and 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, electronic 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 lead 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 electrical engineering 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 and power electronics, 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 125 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 Engineering, a Master of Science degree in Engineering, and a Doctor of Philosophy degree in Engineering. The
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</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNEG 1111 Introduction to Engineering I</td>
<td>1</td>
</tr>
<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 1103 University Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2054 University Physics I</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNEG 1121 Introduction to Engineering II</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1023 Technical Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2564 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>Freshman Science Elective*</td>
<td>4</td>
</tr>
<tr>
<td>University Core Elective**</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 2103 Electric Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 2101L Electric Circuits I Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 2904 Digital Design I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2574 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>Sophomore Science Elective***</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCE 2004 Programming Foundations I</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 2113 Electric Circuits II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 3123 Systems and Signals</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3121L System &amp; Signal Lab</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3213 Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>ELEG 3211L Electronics I Lab</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3923 Microprocessor Systems Design</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 2014 Programming Foundations II</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 2003 Advanced Composition or exemption</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 3223 Electronics II</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3221L Electronics II Lab</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3303 Electromechanical Energy Conversion</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3301L Electromechanical Energy Conversion Lab</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3703 Electromagnetics</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Math/Science Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### Fall Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 4061 Electrical Engineering Design I</td>
<td>1</td>
</tr>
<tr>
<td>ELEG 4143 Stochastic Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>Electrical Eng Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>Upper-Level Humanities/Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 4071 Electrical Engineering Design II</td>
<td>1</td>
</tr>
<tr>
<td>Electrical Eng Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td>Upper-Level Humanities/Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Social Science Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</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 9 semester hours must be 4000- or 5000-level electrical engineering elective courses. A student may select the remaining 6 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 6 semester hours in ELEG 488V and ELEG 489V may be credited toward technical electives. Students who have taken the required number of full-time co-op experiences under GNEG 3811, 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; consult with the Department Co-op Coordinator. 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 340 FOR ELECTRICAL ENGINEERING (ELEG) COURSES.

INDUSTRIAL ENGINEERING (INEG)

Kim LaScola Needy  
Head of the Department  
4207 Bell Engineering Center  
479-575-3156  
- Distinguished Professor Rardin, White  
- Professors Cassady, Johnson, Meller, Needy  
- Associate Professors Chimika, Fant, Mason, Nachtmann, Pohl, Rossetti  
- Assistant Professors Buyurgan, 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.

### Fall Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2554 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1103 University Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 2054 University Physics I</td>
<td>4</td>
</tr>
<tr>
<td>GNEG 1111 Introduction to Engineering I</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1013 Composition I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2564 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>Freshman Science elective*</td>
<td>4</td>
</tr>
<tr>
<td>Humanities/social science elective</td>
<td>3</td>
</tr>
<tr>
<td>GNEG 1121 Introduction to Engineering II</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1023 Technical Composition II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2574 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>INEG 3413 Engineering Economic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>INEG 2101 Principles of Industrial Engineering</td>
<td>1</td>
</tr>
<tr>
<td>INEG 3513 Engineering Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 2004 Programming Foundations I</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3404 Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>INEG 2403 Industrial Cost Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Science Requirement**</td>
<td>3</td>
</tr>
<tr>
<td>INEG 3533 Industrial Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CSCE 2014 Programming Foundations II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

### Fall Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INEG 3713 Methods and Standards</td>
<td>3</td>
</tr>
<tr>
<td>INEG 4623 Introduction to Simulation</td>
<td>3</td>
</tr>
<tr>
<td>MEEG 2003 Statics</td>
<td>3</td>
</tr>
<tr>
<td>ELEG 3903 Electric Circuits and Machines</td>
<td>3</td>
</tr>
<tr>
<td>History or Government Requirement: Select one from (HIST 2003, HIST 2013, PLSC 2003)</td>
<td>3</td>
</tr>
<tr>
<td>INEG 3513 Manufacturing Design and Processes</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Spring Semester Year 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INEG 3613 Introduction to Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>INEG 3523 Manufacturing Systems</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Science 1: Select one from (MEEG 2303 Introduction to Materials, MEEG 2013 Dynamics, MEEG 3013 Mechanics of Materials)</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Science Elective 2: Select one from CHEG 2133 Fluid Mech., MEEG 2403 Thermo</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2143 Basic Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 2003 Advanced Composition or Exemption</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
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### Fall Semester Year 4

<table>
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<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>
<td>3</td>
</tr>
<tr>
<td>INEG 4543 Production Planning/Control</td>
<td>3</td>
</tr>
<tr>
<td>Technical elective (please consult approved technical elective list)</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/social science electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Semester hours</strong></td>
<td><strong>18</strong></td>
</tr>
<tr>
<td><strong>Total hours required</strong></td>
<td><strong>129</strong></td>
</tr>
</tbody>
</table>

* CHEM 1132/1131L 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 358 FOR INDUSTRIAL ENGINEERING (INEG) COURSES.

### MECHANICAL ENGINEERING (MEEG)

Joseph J. Rencis
Head of the Department
204 Mechanical Engineering Building
479-575-3153
Fax: 479-575-6982
E-mail: jjrencis@uark.edu

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, Tun, Zou
- Assistant Professors Huang, Spearot, Wejinya
- Instructor Davis
- Adjunct Professor Cole
- Adjunct Assistant Professors Batzer, Chaffin, 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 result in graduates who are qualified and prepared to meet the demands of a professional career in the present and future work place 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>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1013</td>
<td>Composition I</td>
</tr>
<tr>
<td>CHEM 1103</td>
<td>University Chemistry I</td>
</tr>
<tr>
<td>PHYS 2054</td>
<td>University Physics I</td>
</tr>
<tr>
<td>MATH 2554</td>
<td>Calculus I</td>
</tr>
<tr>
<td>GNEG 1111</td>
<td>Introduction to Engineering I</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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<tr>
<td>15</td>
<td></td>
</tr>
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</table>

#### Spring Semester Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities/Social Science Elective (History)</td>
<td></td>
</tr>
<tr>
<td>GNEG 1121</td>
<td>Introduction to Engineering II</td>
</tr>
<tr>
<td>MATH 2564</td>
<td>Calculus II</td>
</tr>
<tr>
<td>Freshman Science Elective (See above)</td>
<td></td>
</tr>
<tr>
<td>ENGL 1023</td>
<td>Technical Composition II</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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#### Fall Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MEEG 2100</td>
<td>Computer-Aided Design Competency</td>
</tr>
<tr>
<td>Science Elective (See note above)</td>
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</tr>
<tr>
<td>MATH 2574</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MEEG 2303</td>
<td>Introduction to Materials</td>
</tr>
<tr>
<td>MEEG 2003</td>
<td>Statics</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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#### Spring Semester Year 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3404</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>MEEG 2013</td>
<td>Dynamics</td>
</tr>
<tr>
<td>MEEG 2403</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>MEEG 2703</td>
<td>Computer Methods in Mechanical Engineering</td>
</tr>
<tr>
<td>MEEG 2103</td>
<td>Introduction to Machine Analysis</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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#### Fall Semester Year 3

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MEEG 3013</td>
<td>Mechanics of Materials</td>
</tr>
<tr>
<td>MEEG 3113</td>
<td>Machine Dynamics and Control</td>
</tr>
<tr>
<td>MEEG 3202</td>
<td>Mechanical Engineering Laboratory I</td>
</tr>
<tr>
<td>MEEG 3503</td>
<td>Mechanics of Fluids</td>
</tr>
<tr>
<td>ELEG 3903</td>
<td>Circuits &amp; Machines</td>
</tr>
<tr>
<td>Humanities/Social Science Elective (Economics)</td>
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<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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#### Spring Semester Year 3

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MEEG 3212</td>
<td>Mechanical Engineering Laboratory II</td>
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<tr>
<td>MEEG 4413</td>
<td>Heat Transfer</td>
</tr>
<tr>
<td>MEEG 4104</td>
<td>Machine Element Design</td>
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<tr>
<td>ELEG 3913</td>
<td>Engineering Electronics</td>
</tr>
<tr>
<td>Technical/Science Elective</td>
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</tr>
<tr>
<td>Humanities/Social Science Elective (1000-2000 Level) from approved list</td>
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<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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#### Fall Semester Year 4

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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MEEG 4132</td>
<td>Professional Engineering Practice</td>
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<tr>
<td>MEEG 4131</td>
<td>Creative Project Design I</td>
</tr>
<tr>
<td>MEEG 4202</td>
<td>Mechanical Engineering Laboratory III</td>
</tr>
<tr>
<td>MEEG 4483</td>
<td>Thermal Systems Analysis and Design</td>
</tr>
<tr>
<td>Technical/Science Elective</td>
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</tr>
<tr>
<td>Humanities/Social Science Elective (3000 - 4000 Level) from approved list</td>
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</tr>
<tr>
<td>ENGL 2003</td>
<td>Advanced Composition or Exemption</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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<td>14</td>
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</table>

#### Spring Semester Year 4

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>MEEG 4133</td>
<td>Creative Project Design II</td>
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<td>Technical/Science Elective</td>
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<tr>
<td>Technical/Science Elective</td>
<td></td>
</tr>
<tr>
<td>Humanities/Social Science Elective (1000-2000 Level) from approved list</td>
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</tr>
<tr>
<td>Humanities/Social Science Elective (5000-4000-Level) from approved list</td>
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<tr>
<td></td>
<td><strong>Semester Hours</strong></td>
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</tr>
</tbody>
</table>

**Total Hours**

124
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 369 FOR MECHANICAL ENGINEERING (MEEG) COURSES.
The School of Law

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 member of the faculty who is also 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 was 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 Arsaga’s coffee shop on the second floor, the 203-seat E.J. Ball Courtyard and a new Student Services office. The Richard B. Atkinson Memorial Courtyard, designed by world-renowned artist and sculptor Jesús Moroles, was completed in fall 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 Loi.is, 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. Included 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
• Vincent Foster University Professor of Legal Ethics and Professional Responsibility Brill
• Wylie H. Davis Distinguished Professor Killenbeck (M.)
• Robert A. Leflar Professor Bailey
• Clayton N. Little Professor Goforth
• E.J. Ball Professor Judges
• Arkansas Bar Foundation Professor Leflar
• Sidney Parker Davis Jr. Professor of Business and Commercial Law Matthews
• William H. Enfield Professor Sheppard
• Professors Beard, Brummer, Flaccus, Kilpatrick, Moberly, Nance, Norvell, Schneider
• Associate Professors Circo, Ewelukwa, Foster, Kelley, Snow
• Assistant Professors Coats, Gallini, Hughes, Killenbeck (A.), Koch, Tarvin
• Research Assistant Professor Pittman
• Visiting Clinical Assistant Professor Doss
• 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 degrees.

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 student 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 director 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 internship 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 Department 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.
SCHOOL ADMISSION REQUIREMENTS

For complete details concerning admission to the School of Law, visit us at http://law.uark.edu/admissions.php or write to School of Law Office of Admissions, Leflar Law Center, University of Arkansas, Fayetteville, AR 72701, or telephone 479-575-7645 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 number 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 law 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, 479-575-7645.
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, 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/](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 31-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, Mountain Warfare and Cultural Immersion Overseas Program in the summer during the sophomore year. 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 two-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 ($1,200 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 $1,700 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 371 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.

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, Charles W. Jr. – 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.

Andrews, David L. – B.S.E.E., M.S.E.E. (University of Missouri-Columbia), Ph.D. (Syracuse University), Thomas Mullins Chair and Professor of Computer Science and Computer Engineering, 2008.

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.


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.


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.A., M.S. (University of Arkansas), Ph.D. (Purdue University), Professor of Crop, Soil, and Environmental Sciences, 1984, 1993.

Bailey, Alberta 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, Lindlee – 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, Vernoice 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.

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.

Batzer, Stephen A. – B.S. (Michigan Technological University), M.S. (GMI Engineering and Management Institute), Ph.D. (Michigan Technological University), PE, Adjunct Assistant Professor of Mechanical Engineering, 2004.


Beaupre, Steven J. – B.S., M.S. (University of Wisconsin), Ph.D. (University of Pennsylvania), Professor of Biological Sciences, 1995, 2006.

Beavers, Gordon – B.S., M.S. (University of Texas), Ph.D. (Indiana University), Associate Professor of Computer Science and Computer Engineering, 2002.

Beck, Jules – B.A., M.S., Ph.D. (University of Minnesota), Assistant Professor of Workforce Development, 2005.


Beitel, Robert R. – B.S.Ch.E., M.S.Ch.E., Ph.D. (University of Pittsburgh), PE, Professor of Chemical Engineering, Adjunct Associate Professor of Biological and Agricultural Engineering, 1993, 2006.


Bell, Steven M. – B.A. (University of Kansas), M.A. (University of Kentucky), Ph.D. (University of Kansas), Associate Professor of Foreign Languages, 1992, 1996.

Bellaiche, Laurent – B.S., M.S., Ph.D. (University of Paris VI, France), Professor of Physics, 1999, 2005.


Bennett, A. Rick – B.S. (Shippensburg State University), M.S. (Colorado State University), Ph.D. (West Virginia University), Professor of Plant Pathology, 2009.

Benton, Gregory M. – B.A. (University of California-Santa Barbara), M.S. (Indiana University), Ph.D. (Indiana University), Assistant Professor of Recreation, 2007.

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.

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.

Bluhm, Burton – B.S. (University of Oklahoma), M.S., Ph.D. (Purdue University), Assistant Professor of Plant Pathology, 2008.

Bonacci, Jeffrey A. – B.S. (University of Akron), M.S. (West Virginia University), D.A. (Middle Tennessee State University), Clinical Assistant Professor of Kinesiology, 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.


Boss, Stephen K. – B.S. (Bemidji State University), M.S. (Utah State University), Ph.D. (University of North Carolina, Chapel Hill), Associate Professor of Geology, 1996, 2002.


Bourland, Fred M. – B.S.A., M.S. (University of Arkansas), Ph.D. (Texas A&M University), Professor of Crop, Soil, and Environmental Sciences at Northeast Research and Extension Center, 1988.


Bowles, Freddie A. – B.A. (University of Central Arkansas), M.A., Ph.D. (University of Arkansas), Assistant Professor of Foreign Language Education, 2007.

Boyas, Javier – B.A. (Western Illinois University), M.S.W. (University of Michigan), Ph.D. (Boston College), Assistant Professor of Social Work, 2007.


Boyer, Mark E. – B.S.L.Arch. (University of Kentucky), M.L.Arch. (Louisiana State University), Associate Professor of Landscape Architecture, 1998, 2004.

Bradley, Mindy S. – B.A. (University of West Georgia), M.A., Ph.D. (Penn State University), Assistant Professor of Sociology and Criminal Justice, 2005.

Brady, Pamela L. – B.S., M.S. (University of Arkansas), Ph.D. (University of Tennessee), Adjunct Professor of Food Science, 1999.

Brady, Robert M. – B.S. (Murray State University), M.A. (Western Kentucky University), Ph.D. (University of Michigan), Assistant Professor of Communication, 1979, 1985.

Brahana, John Van – A.B. (University of Illinois), M.A., Ph.D. (University of Missouri), Professor of Geosciences (Geology), 1999.


Breeding, Steve – B.S., M.S., D.M.V. (North Carolina State University), Adjunct Assistant Professor of Poultry Science, 1998.

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.


Brister, Roy – B.S., M.S., Ph.D. (Texas A&M University), Adjunct Professor of Poultry Science, 1994.


Brock, Geoffrey – B.A. (Florida State University), M.A., Ph.D. (University of Pennsylvania), Associate Professor of English, 2005, 2009.

Brogi, Alessandro – B.A. (University of Florence, Italy), M.A. (Ohio University), Ph.D. (University of Florence, Italy), Ph.D. (Ohio University), Professor of History, 2002, 2008.


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, Kristofo1 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.


Bushkui h, John Francis – B.S.Ch.E. (University of Arkansas), Visiting Instructor in Chemical Engineering, 1994.

Buyur g an, Nebi l – B.S. (Istanbul Technical University), M.S., Ph.D. (University of Missouri-Rolla), Assistant Professor of Industrial Engineering, 2004.

Cai, Lian g – B.A. (Renmin University of China), M.A., Ph.D. (Cornell University), Assistant Professor of History, 2008.

Calie ja, Paul – B.S. (San Jose State University), M.S., Ph.D. (University of Arkansas), 2005.


Capog na, Luca – B.S. (Second University of Rome), Ph.D. (Purdue University), Professor of Mathematical Sciences, 1999, 2008.

Carder, 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 E. – B.A. (University of Texas, Austin), M.A., Ph.D. (University of Chicago), Assistant Professor of Anthropology, 2004.

Cassady, C. Richard – B.S.I.S.E., M.S., Ph.D. (Virginia Tech University), Professor of Industrial Engineering, 2000, 2008.

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, Peng yin – B.S., M.S. (Northwestern University of Agriculture), Ph.D. (Virginia Tech), Associate Professor of Crop, Soil, and Environmental Sciences, 2001, 2005.


Chism, Stephen J. – B.A. (University of Arkansas), M.L.S. (University of Kentucky), Associate Professor and Associate Librarian, 1984, 1990.

Cholthitchanta, Nophachai – B.M. (Chulalongkorn University, Thailand), M.M. (University of Northern Colorado), D.M.A. (University of Missouri-Kansas City), Associate Professor of Music, 2001, 2009.

Christiansen, Hope L. – B.A., M.A. (Kansas State University), Ph.D. (University of Kansas), Associate Professor of Foreign Languages, 1990, 1996.

Christy-McMullin, Kamer i – B.A. (University of Missouri - Kansas City), M.S.W., Ph.D. (University of Kansas), Associate Professor of Social Work, 2003, 2007.

Circo, Carl J. – B.A. (University of Nebraska), J.D. (University of Nebraska School of Law), Associate Professor of Law, 2003, 2007.


Clark, John R. – B.S., M.S. (Mississippi State University), Ph.D. (University of Arkansas), Professor of Horticulture, 1983, 2008.

Clausen, Edgar C. – B.S.Ch.E., M.S.Ch.E., Ph.D. (University of Missouri-Rolla), Ph.D. (University of Missouri-Rolla), 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), Assistant Professor of Law, 1996.

Coats, Kimberly F. – B.S. (Arizona State University), J.D. (Oklahoma City University), Assistant Professor of Law, 1999, 2008.


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), PE., 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. (University of Illinois at Urbana-Champaign), Associate Professor of Foreign Languages, 2002, 2008.

Congo, 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.

Cotthen, 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, 2003.

Couvillion, Rick J. – B.S.M.E. (University of Arkansas), M.S.M.E., Ph.D. (Georgia Institute of Technology), PE., 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. (Utah State University), 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. (Louisiana Tech 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.


Daniels, Donna – B.A., M.L.S. (Western Michigan University), Associate Professor and Associate Librarian, 1982, 1998.

Daniels, Michael B. – B.S. (Pennsylvania State University), M.S., Ph.D. (University of Arkansas), Professor of Crop, Soil, and Environmental Sciences, 1996, 2000.


Daughtery, Michael K. – B.S., M.S., Ed.D. (Oklahoma State University), Professor of Vocational Education, 2005.

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, Debbie – B.A., M.Ed. (University of Central Oklahoma), Ed.D. (University of Arkansas), Clinical Assistant Professor of Curriculum and Instruction, 2008.

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.


Denton, James H. – B.S., M.S., Ph.D. (Texas A&M University), Professor of Poultry Science, 1992.

Devedreddy, Latha – B.S.Ch. (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 and 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, Jia – B.S., M.S., Ed.S. (Kansas State College of Pittsburg), Ph.D. (Kansas State University), Associate Professor of Workforce Development, 1970, 1976.

Dix, Jia – B.S., M.S. (California State University, Dominick, John A. – B.S., M.A. (Louisiana Polytechnic Institute), M.S., Ph.D. (University of Alabama), Professor of Finance and the J.W. Bellamy Chair of Banking and Finance, 1970, 1976.

Dong, Elaine X. – B.S. (Beijing Normal University), M.L.S. (Wuhan University), M.L.S. (McGill University), Assistant Professor and Assistant Librarian, 2005.

Dong, Elaine X. – B.S. (Beijing Normal University), M.L.S. (Wuhan University), M.L.S. (McGill University), Assistant Professor and Assistant Librarian, 2005.

Doodle, Stephen W. – B.A., M.A. (Drake University), Ph.D. (University of Louisville), Assistant Professor of Recreation, 2008.

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.


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Doss, Angela – B.A. (University of Toronto), M.A., J.D. (University of Arkansas), Visiting Clinical Associate Professor of Law, 2006.


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Dye, Judith – B.A. (Michigan State University), M.S.L.S. (Atlantic University), Associate Professor and Associate Librarian, 2002.

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El-Ghazaly, Samir – B.S. (Cairo University), M.S. (Cairo University), Ph.D. (University of Texas at Austin), Distinguished Professor of Electrical Engineering, 2007.

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Foley, Larry – B.A. (University of Arkansas), M.S. (University of Central Arkansas), Professor of Journalism, 1993, 2005.

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Gallini, Brian – B.A. (College of the Holy Cross), J.D. (University of Michigan), Assistant Professor of Law, 2008.

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.

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Gu, Jingping – B.A. (Renmin University of China, Beijing), M.A. (Peking University), Ph.D. (Texas A&M University), Assistant Professor of Economics, 2008.

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Gunter, Timothy – B.S.E., M.M. (University of Arkansas), Adjunct Assistant Professor of Music, 1991.

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Hallbrook, Steve A. – B.A. (University of Arkansas), Ph.D. (Iowa State University), J.D. (Drake University School of Law), Professor of Agricultural Economics and Agribusiness, 2008.

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Ham, Lindsay S. – B.A., M.A., Ph.D. (University of Nebraska-Lincoln), Assistant Professor of Psychology, 2007.

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Han, Jun Hee – B.S. (Seoul National University), M.S., Ph.D. (University of Wisconsin), Assistant Professor of Mathematical Sciences, 2009.

Hanaleski, Robert R. – B.S. (Pennsylvania State University), M.S., Ph.D. (Princeton University), Assistant Professor of Psychology, 2008.
Hagood, Thomas L. – B.A., M.F.A. (University of Arizona), Assistant Professor of Art, 2005.

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.


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.

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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.

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Hendrix, William H. – B.S. (Clemson), M.S. (University of Arkansas), Ph.D. (Iowa State University), Professor of Entomology, 1996.

Henry, L. Jean – B.S. (Texas A&M University), M.A. (Michigan State University), Ph.D. (Texas Woman's University), Assistant Professor of Health Science, 2008.

Henry, Ralph L. – B.S.E. (University of Kansas), M.S., Ph.D. (Kansas State University), Professor of Biological Sciences, 1996, 2005.

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Lusby, Keith S. – B.S., M.S. (Kansas State University), Ph.D. (Oklahoma State University), Professor Animal Science, 1995.
Mauroumoustakos, Andy – B.S. (Oral Roberts University), M.S., Ph.D. (Oklahoma State University), Professor of Crop, Soil, and Environmental Sciences, 1989, 2002.

Maxwell, Charles – B.S., M.S., Ph.D. (University of Wisconsin), Professor of Animal Science, 1996.

Mayes, Richard – B.S. (University of Arkansas), Major (U.S. Army Corps of Engineers), Assistant Professor of Military Science and Leadership, 2004.

Mayes, Susan – B.S.E., M.Ed. (University of Arkansas), Instructor in Kinesiology, 1982.


McCann, Roy – B.S.E.E., M.S.E.E. (University of Illinois), Ph.D. (University of Dayton), Associate Professor of Electrical Engineering, 2003.

McCartney, Nancy G. – B.A., M.A., Ph.D. (University of Wisconsin), Assistant Professor and Assistant Curator, 1974, 1976.

McComas, William F. – B.S. (Lock Haven State University), M.A. (West Chester State University), Ph.D. (University of Iowa), Professor of Curriculum and Instruction, 2006.


McDonald, Garry – B.S., M.S. Ph.D. (Texas A&M University), Assistant Professor of Horticulture, 2008.

McGhee, Marilyn – B.S.E., M.S. (University of Arkansas), Instructor in Communication Disorders, 1999.

McIntosh, Matthias C. – B.A. (Virginia Tech), Ph.D. (Pennsylvania State University), Associate Professor of Chemistry and Biochemistry, 1996, 2002.


McLeod, Paul J. – B.S., M.S., Ph.D. (University of Arkansas), Professor of Entomology, 1984, 1993.


McMullan, Irene – B.A., M.A. (University of Toronto), Ph.D. (Rice University), Assistant Professor of Philosophy, 2007.

McNabb, David – B.S. (University of Texas at Arlington), Ph.D. (Louisiana State University Medical Center), Associate Professor of Biological Sciences, 2000, 2006.


Meaux, Laurie M. – B.S., M.S., Ph.D. (University of Southwestern Louisiana), Associate Professor of Mathematical Sciences, 1989, 1995.

Meek, James L. – B.A., M.A., Ph.D. (University of Texas), Associate Professor of Mathematical Sciences, 1967, 1974.

Meller, Russell D. – B.S.E., M.S.E., Ph.D. (University of Michigan), Professor of Industrial Engineering and the James M. Heffley and Marie G. Heffley Professor of Logistics and Entrepreneurship, 2005.


Messadi, Tahar – B.Arch. (Universite de Constantine, Algeria), M.Arch., Ph.D. (University of Michigan, Ann Arbor), Assistant Professor of Architecture, 2003.

Meuilleten, Jean-Francois – B.S. (Superior Special Math Preparatory School, Remins, France), M.S. (National Superior School of Agronomy and Food Science, Nancy, France), Ph.D. (University of Georgia), Professor of Food Science and Food Sensory Science Professorship, 1996, 2008.

Miles, Jennifer M. – B.S., (Florida State University), M.A., Ed.D. (University of Alabama), Assistant Professor of Higher Education, 2006.


Miller, David M. – B.S., M.S. (Purdue University), Ph.D. (University of Georgia), Professor of Crop, Soil, and Environmental Sciences, 1988, 2001.

Miller, Debra L. – B.A. (University of Arkansas), M.S.L.S. (University of Kentucky), Adjunct Assistant Professor and Adjunct Assistant Librarian, 1999.

Miller, Jefferson D. – B.A. (Northeastern State University, Oklahoma), M.A., Ph.D. (Oklahoma State University), Associate Professor of Agricultural and Extension Education, 2001, 2006.

Miller, Michael – B.S. (University of Missouri, Rolla), M.S. (University of Colorado), Visiting Assistant Professor of Operations Management, 2001.


Miller, Nancy G. – B.A., B.S. (Iowa State University), M.S., Ph.D. (University of Minnesota), Assistant Professor of Interior Design, 2002.

Miller, Phyllis – B.S., M.Ed. (Lamar University), Ph.D. (Texas A&M University), Associate Professor of Journalism, 1991, 1993.

Miller, Wayne P. – B.S. (Purdue University), M.S. (University of Illinois), Ph.D. (University of Wisconsin), Adjunct Professor of Agricultural Economics and Agribusiness, 1989, 1992.


Millett, Francis S. – B.S. (University of Wisconsin), Ph.D. (Columbia University), University Professor of Chemistry and Biochemistry, 1972, 1989.

Milus, Eugene A. – B.S. (Pennsylvania State University), M.S., Ph.D. (Washington State University), Professor of Plant Pathology, 1988, 2005.


Misenhelter, Dale – B.M. (Florida State University), M.M. (University of Wyoming), Ph.D. (Florida State University), Associate Professor of Music, 2002.

Moberly, Robert M. – B.S., J.D. (University of Wisconsin), Professor of Law, 1999.

Moiseichik, Merry – B.S.E., M.S. (State University of New York at Cortland), Re.D. (Indiana University), Associate Professor of Recreation, 1989, 1995.


Monfort, Walter Scott – B.S., M.S. (University of Georgia), Ph.D. (University of Arkansas), Assistant Professor of Plant Pathology, Extension Plant Pathologist, 2006.


Moore, Corey L. – B.A. (University of Georgia), M.S. (University of Kentucky), Rh.D. (Southern Illinois University), Research Assistant Professor of Rehabilitation, 1999.

Moore, Cynthia K. – B.A. (Central Missouri State University), M.S. (University of Alabama at Birmingham), Ph.D. (University of Alabama at Tuscaloosa), Assistant Professor of Human Environmental Sciences, 2006.

Moore, Philip A. Jr. – B.S., M.S. (University of Arkansas), Ph.D. (Louisiana State University), Visiting Associate Professor of Crop, Soil, and Environmental Sciences, 1990, 1992.

Moore, John A. – B.B.A. (Kent State University), M.A. (Ball State University), Visiting Assistant Professor of Operations Management, 2000.

Moorhead, James R. – B.S. (Indiana State University), M.B.A. (Kennedy Western University), Visiting Assistant Professor of Operations Management, 1989.

Morawicki, Ruben O. – B.S. (Universidad Nacional de Misiones, Argentina), M.S. (State University of New York-Buffalo), Ph.D. (Pennsylvania State University), Assistant Professor of Food Science, 2006.


Osborn, Tommy – B.S. (Arkansas State University), Major (Field Artillery, U.S. Army), Assistant Professor of Military Science and Leadership, 2001.

Overbey, Randle – B.S. (Arkansas State University), M.S., Ph.D. (University of Arkansas), Instructor in Electrical Engineering, 2008.


Owens-Hanning, Casey M. – B.S., M.S., Ph.D. (Texas A&M University), Associate Professor of Poultry Science, 2000, Adjunct Assistant Professor of Food Science, 2003, 2006.

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Parker-Gibson, Necia – B.S.A. (University of Arkansas), M.L.I.S. (Louisiana State University), Associate Professor and Associate Librarian, 1991, 1997.


Patton, Aaron J. – B.S. (Iowa State University), M.S., Ph.D. (Purdue University), Assistant Professor of Horticulture, 2006.

Paul, David W. – B.S. (Southwestern University), Ph.D. (University of Cincinnati), Associate Professor of Chemistry and Biochemistry, 1980, 1986.

Paulus, David – B.S., M.S. (University of Tennessee), Ph.D (Colorado State University), Adjunct Assistant Professor, Mechanical Engineering, 2007.

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Pulay, Peter – M.S. (Eotvos L. University), M.S., Ph.D. (University of Stuttgart), Roger Bost Professor of Chemistry and Biochemistry, 1982, 1983.

Pullen, Brian – B.S. (Arkansas Tech University), M.A. (University of Arkansas), Associate Professor of Food Science, 2003.

Pumphord, Neil R. – B.S., Ph.D. (University of Arkansas for Medical Sciences), Adjunct Research Assistant Professor of Poultry Science, 1999.

Purcell, Larry P. – B.S., M.S. (University of Georgia), Ph.D. (University of Florida), Professor of Crop, Soil, and Environmental Sciences and the Ben J. Altheimer Chair for Soybean Research, 1993, 2003.


Quinn, William A. – B.A. (Xavier University), M.A., Ph.D. (Ohio State University), Professor of English, 1979, 1995.


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Reese, Donna J. – B.A. (Northwestern University), M.S.W., Ph.D. (University of Maryland), Assistant Professor of Social Work, 2000.

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Restrepo, Luis Fernando – B.A. (Universidad Pontificia Bolivariana), M.A., Ph.D. (University of Maryland at College Park), Professor of Foreign Languages, 1995, 2006.

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Reynolds, Michael – B.S.M.E. (Marquette University), M.S.M.E., Ph.D. (Purdue University), Adjunct Assistant Professor, Mechanical Engineering, 2007.

Rhoads, Douglas D. – B.A., M.A. (Wichita State University), Ph.D. (Kansas State University), Professor of Biological Sciences, 1990, 2006.

Richardson, Michael D. – B.S. (Louisiana Tech University), M.S. (Louisiana State University), Ph.D. (University of Georgia), Associate Professor of Horticulture, 1998, 2002.

Richardson, Vernon J. – B.S., M.B.A. (Brigham Young University), Ph.D. (University of Illinois at Urbana-Champaign), Professor and the Donald “Buddy” Wray Chair in Food Safety, 2006.

Rieck, YoAv – B.A. (Israel Institute of Technology), Ph.D. (University of Texas), Associate Professor of Mathematical Sciences, 2000, 2007.

Riggs, Charles Jr. – B.S. (University of Texas), M.S., Ph.D. (Texas A&M University), Professor of Kinesiology, 1984, 1992.

Riggs, Susan – B.S. (University of Texas), M.Ed. (Texas A&M University), Instructor in Curriculum and Instruction, 1987.


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Robbins, James A. – B.S. (University of Wisconsin), M.S. (University of Georgia), Ph.D. (University of California-Davis), Professor of Horticulture, 1998.

Robbins, Robert Thomas – B.S., M.S. (Kansas State University), Ph.D. (North Carolina State University), University Professor of Plant Pathology, 1979, 2008.


Roeder, Mikelle J. – B.S., M.S. (Washington State University), Ph.D. (University of Idaho), Adjunct Assistant Professor of Animal Science, 2002.


Rogers, Marylin – B.A. (Northwestern State University, Louisiana), M.L.S. (Louisiana State University), Associate Professor and Assistant Librarian, 1987.


Root, Sarah – B.S., (University of Pittsburgh), Ph.D. (University of Michigan), Assistant Professor of Industrial Engineering, 2007.

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Rosen, Chris – B.A. (Washington and Lee University), M.A. (Appalachian State University), Ph.D. (University of Akron), Assistant Professor of Management, 2006.


Rossetti, Manuel D. – B.S. (University of Cincinnati), M.S., Ph.D. (Ohio State University), Associate Professor of Industrial Engineering, 1999, 2003.


Rothrock, Craig S. – B.S. (Iowa State University), M.S., Ph.D. (University of Illinois), Professor of Plant Pathology, 1989, 1994.

Rotolo, Charles J. – B.Arch. (Louisiana State University), M.Arch. (Washington University), Clinical Assistant Professor of Architecture, 2007.


Roziere, Louise – Licence ès Lettres (Université des Lettres et Sciences Humaines, Besançon, France), M.A. (University of Arkansas), D.M.L. (Middlebury College), Assistant Professor of Foreign Languages, 2004.

Rudzinski, Russell – B.Arch. (Syracuse University), M.Arch. (Washington University), Adjunct Assistant Professor of Architecture, 2000, 2006.

Ruiz, M. Reina – B.A. (University of Leon, Spain), M.A. (Kansas State University), Ph.D. (Washington University), Associate Professor of Foreign Languages, 2001, 2007.


Rupe, John C. – B.A. (Goshen College), B.S. (Colorado State University), M.S., Ph.D. (University of Kentucky), Professor of Plant Pathology, 1984, 2001.

Russell, Joshua A. – B.A. (Shepherd University), M.M. (Northwestern University), Ph.D. (University of Colorado, Boulder), Assistant Professor of Music, 2007.

Rutger, J. Neil – B.S. (University of Illinois), M.S., Ph.D. (University of California-Davis), Adjunct Professor of Crop, Soil, and Environmental Sciences USDA (ARS), 1995.

Rutledge, E. Moye – B.S. (Tennessee Technological University), Ph.D. (University of Kentucky), Adjunct Assistant Professor of Architecture, 2000, 2006.

Ryan, Jeffrey J. – B.A. (Colorado State University), M.A., Ph.D. (Rice University), Associate Professor of Political Science, 1990, 1996.


Sadaka, Samy – B.S., M.S., (Alexandria University,Egypt), Ph.D.(Dalhousie University Canda and Alexandria University, Egypt), Assistant Professor of Biological and Agricultural Engineering, 2007.

Sagers, Cynthia L. – B.A. (University of Iowa), Ph.D. (University of Utah), Associate Professor of Biological Sciences, 1994, 2000.


Sampson, Kathryn A. – B.A. (University of Northern Iowa), J.D. (University of Iowa), Assistant Professor of Law, 1995, 2008.

Salamo, Gregory J. – B.S. (Brooklyn College), M.S. (Purdue University), Ph.D. (City University of New York), Distinguished Professor of Physics, 1975, 2005.

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Sayler, Ronald J. – B.S., M.S. (North Dakota State University), Ph.D. (University of California-Davis), Research Assistant Professor of Plant Pathology, 2006.

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Schiesser, Lothar – Diploma, Ph.D. (University of Munich), Distinguished Professor of Chemistry and Biochemistry, 1968, 1989.


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), L.L.M. (University of Arkansas), Professor of Law, 1998, 2006.


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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.

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Seideman, Steven – B.S., M.S., Ph.D. (Texas A&M University), Extension Specialist of Food Science, 2002.

Selvam, Ratham Panneer – B.E, M.E (University of Madras, India), M.S.C.E. (South Dakota School of Mines and Technology), Ph.D. (Texas Tech University), P.E., Professor of Civil Engineering, 1986, 1999.


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Shannon, Graham F. – B.A., B.Arch. (University of Arkansas), M.Arch. in Urban Design (Rice University), Professor of Architecture, 1979, 1990.

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Shields, Todd G. – B.A. (Miami University), M.A., Ph.D. (University of Kentucky), Professor of Political Science, 1994, 2005.

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Siebenborn, Terrence J. – B.S.Ag.E. (University of Arkansas), M.S.Ag.E. (Purdue University), Ph.D. (University of Nebraska), P.E., University Professor of Food Science, 1984, 2006, Adjunct Professor of Chemical Engineering, 2004.

Silano, Alfred L. – B.S. (Rutgers University), M.S. (Newark College of Engineering), Ph.D. (Rutgers University), Research Professor of Chemical Engineering, 1987.

Silverman, Jeffrey D. – B.S., M.A. (Southern Methodist University), M.S. (Louisiana State University Medical Center), Ph.D. (University of Miami), Assistant Professor of Biological Sciences, 2004.

Singh, Surendra R. – B.Sc., M.Sc. (Banaras Hindu University, India), Ph.D. (University of Rochester), Professor of Physics, 1982, 1992.

Sisson, Wendy – B.S.N. (Florida International University), M.S.M. (University of Arkansas for Medical Sciences), Instructor of Nursing, 2006.


Skulman, Briggs W. – B.S., M.S., Ph.D. (University of Arkansas), Adjunct Assistant Professor of Crop, Soil, and Environmental Sciences, 2005.
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<tr>
<th>Name</th>
<th>Institution</th>
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<tr>
<td>Smith, Brent L.</td>
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<td>Smith, Tom E.C.</td>
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<td>Spearot, Douglas E.</td>
<td>B.S. (University of Michigan), M.S., Ph.D. (Georgia Institute of Technology), Assistant Professor of Mechanical Engineering, 2005.</td>
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<tr>
<td>Spence, Thomas O.</td>
<td>B.S.Ch.E., M.S.Ch.E., Ph.D. (University of Arkansas), Professor of Chemical Engineering, 1984, 1996.</td>
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<tr>
<td>Spiegel, Frederick W.</td>
<td>B.A. (Drew University), Ph.D. (University of North Carolina), Professor of Biological Sciences, 1982, 2005.</td>
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<tr>
<td>Spradley, J. Pies</td>
<td>B.S. (Hendrix College), M.S. (University of Arkansas), Associate Professor of Plant Pathology and Extension Pesticide Specialist, 1984, 2003.</td>
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</tbody>
</table>
Sun-Ok, Lee – B.S., M.S. (Dongduk Women’s University), M.S., Ph.D. (Iowa State University), Assistant Professor of Food Science, 2008.

Studebaker, Glenn – B.S. (Missouri Southern University), M.S., Ph.D. (University of Arkansas), Assistant Professor of Entomology, 1993.


Swartwood, Larry D. – B.A. (Southern Colorado State College), M.F.A. (University of Colorado), Visiting Assistant Professor of Art, 1993.


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. (California State University), Ph.D. (University of Nebraska), Associate Professor of Entomology, 2001, 2006.

Tacker, Phil – B.S., M.S. (University of Arkansas), 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.


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, Fangzhens – B.S. (University of Science and Technology of China), Ph.D. (University of Maryland), Assistant Professor of Geosciences, 2008.


Thibado, Paul M. – B.S. (San Diego State University), Ph.D. (University of Pennsylvania), Professor of Physics, 1996, 2004.

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.

Thompson, Cecilia – B.S., M.Ed. (University of Arkansas), Ph.D. (Pennsylvania State University), Associate Professor of Career and Technology Education, 1987, 1995.

Thompson, Craig – B.S. (Stanford University), M.S., Ph.D. (University of Texas at Austin), Axiom Database Chair in Engineering and Professor of Computer Science and Computer Engineering, 2003.


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, Randall J. – B.A. (Indiana University), M.S. (Indiana University), J.D. (University of Illinois), Associate Professor of Law, 2008.

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.


Troxel, Tom R. – B.S. (West Texas State University), M.S., Ph.D. (University of Illinois), Professor of Animal Science, 1993.

Tschebikow, 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.


Tyndall, C. Patrick – B.A. (Wabash College), M.A. (Miami University at Ohio), Ph.D. (University of Texas), Assistant Professor of Drama, 1999, 2002.

Tzanetakis, Ioannis – B.S., M.S. (Agricultural University of Athens, Greece), Ph.D. (Oregon State University), Assistant Professor in Plant Pathology, 2008.

Ulrich, Richard K. – B.S.Ch.E. (University of Texas), M.S.Ch.E. (University of Illinois), Ph.D. (University of Texas, Austin), Ph.D. (University of Texas at Austin), PE, Professor of Chemical Engineering, 1987, 1995.


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.


Vickers, Kenneth – B.S., M.S. (University of Arkansas), Research Professor of Physics, 1998.

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 Boyce 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.

Vyas, Reeta – B.S., M.S. (Banaras Hindu University), Ph.D. (State University of New York at Buffalo), Professor of Physics, 1989, 2002.
Wailes, Eric J. – B.S. (Cornell University), Ph.D. (Michigan State University), Professor of Agricultural Economics and Agribusiness; L.C. Carter Endowed Chair in Rice and Soybeans, 1980, 2002.


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.


Wang, Kelvin C.P. – B.S. (Southwestern Jiao Tong University), M.S. (Northern Jiao Tong University), Ph.D. (Arizona State University), Ph.D. (University of Civil Engineering), 1993, 2002.

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.

Ward, Barry M. – B.A., B.M., M.Sc. (Trinity College, Dublin), Ph.D. (Rutgers University), Assistant Professor of Philosophy, 2002.


Wardlow, George W. – B.S., M.Ed. (University of Missouri), Ph.D. (Ohio State University), Professor of Agricultural and Extension Education, 1992, 1998.

Warnock, Mary M. – B.A. (Texas Christian University), M.S., Ph.D. (Texas Woman's University), Professor of Human Environmental Sciences, 1976, 1996.


Warren, W. Dale – B.S. (Austin Peay State University), M.M. (University of Kentucky), Associate Professor of Music, 1991.

Watkins, Bradley – B.S., M.S. (University of Arkansas), Ph.D. (Oklahoma State University), Research Assistant Professor of Agricultural Economics, 2002.

Watkins, Patsy – B.A., M.A. (University of Texas, Austin), Ph.D. (University of Iowa), Associate Professor of Journalism, 1984, 1992.


Watson, Douglas – B.S. (Ballad Tank College), M.S. (Southern Illinois University), Ph.D. (Florida State University), Professor of Rehabilitation Education, 1982, 1984.

Wawering, Michael J. – B.S. (Quincey College), M.A.T. (Indiana University), Ph.D. (University of Iowa), Associate Professor of Secondary Education, 1985, 1987.

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), P.E., Professor of Mechanical Engineering, 1982, 1990.


White, Calvin Jr. – B.A., M.A. (University of Central Arkansas), Ph.D. (University of Mississippi), Assistant Professor, 2007.

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., M.E. (University of Arkansas), M.S. (Virginia Polytechnic Institute), Ph.D. (Ohio State University), Distinguished Professor of Industrial Engineering and Chancellor Emeritus, 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. Darell – B.S.A. (University of Tennessee), M.S., Ph.D. (University of Arkansas), Research Assistant Professor of Agronomy, 1982.

Wiedenmann, 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. (University of Texas, Austin), 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.

Williams, Stacy – B.S.C.E., M.S.C.E., Ph.D (University of Arkansas), Assistant Professor of Civil Engineering, 2001.


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.

Wisserh, Catherine – B.S., M.S., M.Ed (Southeast Missouri State University), Ph.D. (University of Missouri-Columbia), Assistant Professor of Curriculum and Instruction, 2009.

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.


Woodland, Janet C. – B.A. (King's College, Wilkes-Barre, Penn.), M.A., Ph.D. (State University of New York at Stony Brook), Clinical Assistant Professor of Mathematical Sciences, 1993, 2009.


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.

Worshen, Diana Gonzales – B.S. (University of Houston), M.A.T. (University of Texas), Ph.D. (University of Arkansas), Adjunct Instructor of Curriculum and Instruction, 2007.

Wu, Jingxian – B.S. (Beijing University of Aeronautics and Astronautics), M.S. (Tsinghua University), Ph.D. (University of Missouri-Columbia), Assistant Professor of Electrical Engineering, 2008.

Xiao, Min – B.S. (Nanjing University), Ph.D. (University of Texas), Distinguished Professor of Physics, 1990, 2004.

Xie, Jining – B.E. (Tsinghua 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, Kaixing – 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.

You, Janice – B.M. (Drake University), M.M. (University of Tulsa), Associate Professor of Music, 1985, 1991.

Yoon, Hargsoon – B.S., M.S. (Yonsei University, Korea), Ph.D. (Pennsylvania State University), Research Assistant Professor in Electrical Engineering, 2005.

Young, Elizabeth – B.A. (Hendrix College), J.D. (George Washington University), Assistant Professor of Law, 2008.


Young, Juana R. – B.A. (Texas Tech University), M.L.S. (North Texas State University), Professor and Librarian, 1972, 1984.

Yu, Shui-Qing (Fisher) – B.S., M.S. (Peking University), Ph.D. (Arizona State University), Assistant Professor of Electrical Engineering, 2008.

Zachry, Doy L. Jr. – B.S., M.S. (University of Arkansas), Ph.D. (University of Texas, Austin), Professor of Geology, 1968, 1987.

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.

Zheng, Nan – B.S. (University of Science and Technology of China), M.S. (University of Rochester), Ph.D. (University of Michigan), Assistant Professor of Chemistry and Biochemistry, 2008.

Zhang, 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.

Zies, Brenda – B.S. (East Texas State University), M.A., Ph.D. (University of Arkansas), Visiting Assistant Professor of Psychology, 2005.


Zou, Min – B.S.A.E., M.S.A.E. (Northwestern Polytechnical University), M.S., Ph.D. (Georgia Institute of Technology), Associate Professor of Mechanical Engineering, 2003, 2008.

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 the Registration portion of the Orientation and Registration chapter for more information.

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 or staff 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. The class schedule is available online and is sometimes informally referred to as the “Racing Form.”

College or School. One of ten major divisions within the University that offers specialized curricula.

Concentration. A subset 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.

Core. See University Core below.

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 the Placement and Proficiency portion of the 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.

Dependent Major. See Second Major below.

Drop/Add. Official dropping or adding of courses for which students are registered during specified times as published in the schedule of classes. See also Withdrawal below.

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 either require a summer internship or fieldwork, and may therefore not qualify for the eight-semester degree completion program.

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, that 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.

Honors.

Integrated Student Information System (ISIS). This online database manages student, faculty and staff records and class schedules.

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 nor-
mally 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 behavior, 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.

**Second Major.** A major that is not offered independently but which a student may pursue in addition to a primary major.

**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.

**State Minimum Core.** See University Core below.

**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, calculated 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 the entry for Fees above.

**Undeclared Major.** Designation indicating students who have not selected a major.

**Undergraduate Study.** Work taken toward earning an associate or a baccalaureate degree.

**University Core.** The state of Arkansas specifies a number of core courses that students must successfully pass to obtain a degree. These are also sometimes referred to as the State Minimum Core. See the Requirements for Graduation and University Core portions of the Academic Regulations for more information.

**Withdrawal.** Official withdrawal from all courses during a semester at the University.
## Course Descriptions

### How to Read a Course Description

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<th>Course Code</th>
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<td>349</td>
<td>EDRE (Educational Reform)</td>
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<td>EDUC (Education)</td>
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<td>ENDY (Environmental Dynamics)</td>
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<td>ESRM (Educational Statistics and Research Methods)</td>
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<td>371</td>
<td>GSMD (Graduate Studies in Musical Drama)</td>
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<td>372</td>
<td>GSRE (Graduate Studies in Religious Education)</td>
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<td>LARC (Landscape Architecture)</td>
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<td>LAST (Latin American Studies)</td>
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<td>PLPA (Plant Pathology)</td>
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<td>SPAC (Space and Planetary Sciences)</td>
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<td>SWAH (Swahili)</td>
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<td>TLOG (Transportation and Logistics)</td>
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<td>UACS (UA Clinton School)</td>
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<td>WEDW (Workforce Development)</td>
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<td>426</td>
<td>WIL (World Literature)</td>
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<td>427</td>
<td>WLLC (World Languages, Literatures and Cultures)</td>
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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 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-letter code represents the course prefix name. Usually the course prefix will be the same as the department offering the course, but 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 World Languages, Literatures and Cultures.

**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.

Students desiring admission to courses offered at levels beyond their standing should request the instructor's permission to enroll. (For definitions of academic standing see Student Standing on page 28.)

The second and third digits of the number identify the course within the department that offers it.

The fourth digit identifies the semester-hour value of the course. Credit for certain courses does not count toward some degrees (see Courses that Do Not Count Toward Degrees on page 27.)

Normally, courses meet once each week for 50 minutes for each hour of course credit. Laboratory, drill and other kinds of activity courses typically meet for two 50-minute periods per week for each hour of credit.

The letter ‘V’ is used in place of the last digit for those courses in which credit is variable. The minimum and maximum credit hours possible are given in parentheses after the course title.

The first three digits of the number are the same for corequisite courses (for example, a lecture and the corequisite lab or drill).

**Course Suffix:** A suffix to the course number further identifies the specific type of instruction:

- D - Drill or Discussion
- L - Laboratory
- H - Honors Course
- E - Honors Drill or Discussion
- M - Honors Laboratory

A course with no suffix is a typical lecture course (not an honors course).

**Course Title:** The title of the course is printed in bold letters.

**Course Semester Offering:** Course titles are followed by abbreviations (in parentheses) for the semester in which 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. Consult the Schedule of Classes to verify that a course is being offered for a given term.

**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.

**Requisites:** Requisites are requirements that must be fulfilled either before a course may be taken or at the same time a course is taken. It is the student's responsibility to make sure the proper prerequisites have been completed before enrolling in any class. 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 corequisite are to be taken in the same semester as the course desired.

A course listed as both a pre- and corequisite is a requirement that if not taken prior to enrolling in a course, must be taken during the same semester as the course.

Students may not enroll in courses for which they do not have the necessary requisites. Students who are in doubt concerning their eligibility to enroll in specific courses should consult with their academic adviser. Students may be dropped from courses for which they do not have the necessary requisites.

### African American Studies (AAST)

**AAST1003 Introduction to African American Studies (Fa)**

This course is an interdisciplinary study of the tangible and intangible contributions made by the indigenous people of Africa and their descendants to the world order and society with an emphasis on their manifestations in the United States of America.

**AAST2323 African American History to 1877 (Fa)**

The course will study the African beginnings, the Caribbean and Latin American influences, and the African American early struggle to survive slavery in the new world, and the continuing social, political, and economical quest to become a first class citizen in American society until Reconstruction, 1840-1877.

**AAST2324 African American History Since 1877 (Sp)**

The course will study the major social, political, and economical issues relating to the African American experience beginning with the late post-Reconstruction period and will include all of the major personalities and influences in the Civil Rights Movement, from 1877 to the present.

**AAST2353 The History of Sub-Saharan Africa (Fa)**

Sub-Saharan African history from the 18th century to the present, with emphasis on the impact of the slave trade, colonization, independence, and contemporary issues of the post-colonial period.

Examination of the ways Africans experienced change in terms of culture, society, economics, gender, religion, politics, and labor.

**AAST4063 Women in Africa (Irregular)**

A 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 ANTH 4083)

**AAST4093 The History of African Americans and Social Justice (Even years, Fa)**

Explores how the United States has engaged social justice to African Americans during the nation's history. Examines social justice for blacks and the impact of historic policies and practices on black life today.

**AAST4293 African American Politics (Irregular)**

This is a survey course designed to provide students with a comprehensive overview of African American political participation in the United States. In addition to analyzing important events in African American Politics, the course attempts to explain evolving patterns of political participation in Black America. (Same as PLSC 4293)

**AAST4363 Independence and Africa Today (Sp)**

Examines the last half-century of Africa's history, focusing on the last few decades. Introduction of Africa's colonial past, revolutions and struggles for independence. Review of African development in the post-colonial and contemporary era, successes and failures of independent Africa, and the challenges the continent faces today.

**AAST4383 The American Civil Rights Movement (Irregular)**

Introduction to the history and development of the civil rights movement in the United States. (Same as HIST 4383)

**AAST4483 African American Biographies (Irregular)**

Introduction to the history and intellectual development of famous and not-so-famous African Americans. (Same as HIST 4483)

**AAST499V African American Studies Seminar (Sp, Su, Fa) (1-6)**

Explores the various aspects of the African American experience as it relates to the development of black and white relationships in American society and the world. May be repeated for up to 6 hours of degree credit.

### 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.

**ACCT310V Accounting Internship (Sp, Su, Fa) (1-3)**

This class is designed to give students an internship opportunity to combine their formal academic preparation with an exposure to the accounting profession. Prerequisite: ACCT 3723 and ACCT 3843. May be repeated for up to 3 hours of degree credit.

**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-orientated, and database systems. The relative advantages and disadvantages of each type of system are highlighted and discussed. Prerequisite: ACCT 3723 or ACCT 3513 each with a grade of ‘C’ or better.

**ACCT3761 Management Uses of Accounting Information (Sp, Fa)**

Use of accounting information for managerial purposes 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) (3)**

This course is designed to study the theoretical basis for financial accounting concepts and principles related to financial reporting. This course emphasizes researching technical accounting pronouncements for application to external financial reporting issues. Prerequisite: WCOB 2043 with a grade of ‘C’ or better.

**ACCT3753 Intermediate Accounting II (Sp)**

This is the second financial accounting course designed to continue study of financial accounting concepts and principles. This course emphasizes research of technical accounting pronouncements for application to external financial reporting issues. Prerequisite: ACCT 3013 or ACCT 3723 each with a grade of ‘C’ or higher.

**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 or ACCT 3723 each with a grade of ‘C’ or better or graduate standing.

**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

University of Arkansas, Fayetteville
ACCT4203 Taxation of Business Entities (Irregular) Focus on the tax treatment of corporations and partnerships. Prerequisite: ACCT 3843 with a grade of "C" or better.

ACCT4673 Product, Project and Service Costing (Sp) Cost systems with emphasis on information generation for cost management and decision making. The course includes spreadsheet and other computer program application. Prerequisite: ACCT 3013 or ACCT 3723 each with a grade of "C" or better.

ACCT4963 Operational Auditing (Fa) The audit of efficiency, effectiveness, and performance of business and nonbusiness entities. Includes coverage of performance auditing techniques and application of these techniques to financial and nonfinancial entities. Prerequisite: ACCT 3013 or ACCT 3723 each with a grade of "C" or better.

ACCT5223 Accounting for Supply Chain & Retail Organizations (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 Advanced Financial Accounting (Fa) Integrated course which explores the financial reporting, tax, managerial, systems and auditing aspects of major corporate restructurings arising from acquisitions, accounting for Chapter 11, hostile takeovers, and bankruptcies. Prerequisite: MBAD 512V with a grade of "C" or better.

ACCT5443 Asset Management (Sp)Managing assets to achieve corporate strategy. Included are issues such as strategy formulation, acquisition processes, internal controls, system requirements, accounting measurements, inventory models, re-engineering capital budgeting, tax issues, and discussion of current business events that have ethical implications. Prerequisite: MBAD 513V with a grade of "C" or better.

ACCT550V Financial Statement Analysis (Sp) This course is designed to study financial statements and their related footnotes; tools and procedures common to financial statement analysis; the relationships among business transactions, environmental forces (political, legal, economic, social), and reported financial information; and how financial statement information can help solve certain business problems. Prerequisite: ACCT 3273 with a grade of "C" or better.

ACCT5549V Special Topics in Accounting (Sp, Fa) (1-3) Seminar in current, advanced topics in accounting. Prerequisite: ACCT 3273 or another course in accounting. May enroll in one or more units. May be repeated for up to 3 hours of degree credit.

ACCT5873 Advanced Taxation (Fa) In-depth coverage of the tax law as it affects business entities 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.

ACCT5883 Individual Tax Planning (Sp) In-depth coverage of the tax treatment of pass-through business entities 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) Examines the national security process, military decision making, the role of Special Operations Forces personnel and evaluation systems, leadership ethics, and the sociology of fraud, elements of fraud, types of fraud involving accounting information, costs of fraud, use of controls to prevent fraud, and methods of fraud detection. Prerequisite: MBAD 512V with a grade of "C" or better.

ACCT5954V Special Topics (Sp, Fa) (1-3) Seminar in current, advanced topics in accounting. Prerequisite: ACCT 3273 or another course in accounting. May enroll in one or more units. May be repeated for up to 3 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 current 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.

ACCT6036V Special Topics in Accounting (Sp, Fa) (1-6) Special research project under supervision of a graduate faculty member.

ACCT6433 Accounting Research Seminar IV (Irregular) Fourth course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects current 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.

ACCT6563 Accounting Research Seminar V (Irregular) Fifth course in the accounting research seminar sequence which explores and evaluates current accounting literature. Course content reflects current 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) Special research project under supervision of a graduate faculty member.

Air Force ROTC (AERO)

AERO1011 The Foundations of the United States Air Force (Fa) A survey course designed to introduce cadets to the United States Air Force and Air Force Reserve Officer Training Corps. Topics include: mission and organization of the Air Force, officerhood and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills. Leadership LAB mandatory for cadets. Corequisite: Lab component.


AERO1020 The Evolution of Air and Space Power I (Fa) A historical survey of air and space power, from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples illustrate the development of air and space capabilities and evaluate the roles of war and peace. Topics include: principles of War and Tenets of Air and Space Power. Leadership LAB mandatory for cadets. Corequisite: Lab component.

AERO1021 The Evolution of Air and Space Power II (Sp) A historical survey of air and space power, from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples illustrate the development of air and space capabilities and missions. Additional topics include: role of space, Space Power, and Tenets of War and Peace. Leadership LAB mandatory for cadets. Corequisite: Lab component.

AERO3023 Air Force Leadership Studies I (Sp) A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations. Corequisite: Lab component.

AERO3024 Air Force Leadership Studies II (Sp) A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations. Corequisite: Lab component.

AERO4013 National Security Affairs and Preparation for Active Duty I (Fa) Examines the national security process, regional security, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officerhood, military justice, civil control of the military, preparation for active duty, and current issues affecting military professionalism. Communication skills are honed within this course. Corequisite: Lab component.

AERO4023 National Security Affairs and Preparation for Active Duty II (Sp) Examines the national security process, regional security, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officerhood, military justice, civil control of the military, preparation for active duty, and current issues affecting military professionalism. Communication skills are honed within this course. Corequisite: Lab component.

AFLS1011 Freshman Orientation (Fa) An orientation to academic expectations, policies and procedures, resources, and career exploration in agricultural, food and life sciences. Lecture two days a week during the first eight weeks of the semester.

AFLS101H Honors Freshman Orientation (Fa) The course will serve as an introduction to the basic information and requirements of the AFLS Honors Program. The course is available to all students, but is required for students in the honors program. Topics covered will include: purpose and organization of the honors program, course requirements, research and creative activity opportunities, and writing and oral communication exercises. Recitation 3 hours per week for the first 5 weeks of the semester.

AFLS102YH Honors Special Topics for Freshmen (Irregular) (1-6) Topics not covered in other courses or in-depth study of a particular topic. Used primarily with the program for the Honors Program. Must be in Honors program to register for this course.

AFLS300V Study Abroad (Sp, Su, Fa) (1-24) Open to undergraduate students studying abroad on university sponsored programs. Study abroad may include summer internships, special topics, coursework abroad and/or directed individual or group study abroad trips of one-to-four weeks duration. May be repeated for up to 24 hours of degree credit.

AFLS3131H Honors Management and Leadership (Fa) Leadership styles and principles and organizational systems as they relate to professional situations. Recitation 3 hours per week for the first 5 weeks of the semester. Corequisite: Lab component.

AFLS3211H Honors Professional Development (Sp) Professional networking, communication skills, and group dynamics as they relate to research, teaching, and extension. Recitation 3 hours per week for 5 weeks.

AFLS3231H Honors Intro to Scientific Thinking & Methods - Logic, Reasoning, & Sci. Argumentation (Fa) A course to introduce students to general patterns of scientific thinking, and methods of scientific evaluation and conclusion building through discussions, readings, and exam, non-credit. Lecture 3 hours per week for the second 5 weeks of the semester.

AFLS3313H Honors Global Issues in AFLS (Sp) The course offers the opportunity to increase their understanding of global issues related to AFLS. The course is open to all students, but first priority will be given to AFLS Honors Students. A mandatory study tour will be scheduled during Spring Break. Recitation 3 hours per week. Prerequisite: Instructor permission.

AFLS3412H Honors Proposal Development (Sp) This course offers a synthesis level learning opportunity. Course will include creative process, ethics, proposal writing, literature review, experimental design, scientific theory and methods, data collection, statistics, budget, and summary. Students will draw on their background and presentations to create written proposals. Three hours per week for 10 weeks. Prerequisite: Junior or senior standing.

AFLS3512H Honors Rotations in Agricultural Laboratory Research (Sp) A laboratory course to introduce students to current laboratory research techniques used in agricultural and life sciences. Hands-on laboratory exercises will emphasize current cellular and molecular research techniques, laboratory notebook keeping, data interpretation, and presentation of results. 4 hours per week. Prerequisite: BIOL 1543 or equivalent.

AFLS400VH Honors Thesis (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

AFLS401VH Honors Special Topics (Irregular) (1-3) Studies of selected topics not covered in other courses. Must be in the Honors program to register for this course. May be repeated for up to 4 hours of degree credit.

AFLS402I Internship for Ambassadors (Sp, Fa) Practical experience gained through group dynamics, communication, planning and implementing collegiate wide activities. Must be selected as a group ambassador before enrollment. May be repeated for up to 6 hours of degree credit.

AFLS4431H Honors Exploring Ethics (Fa) Exploring issues relevant to human deeds in plants, animals, and environment. Issues to be covered include the sanctity of life and the ethics of mass media in the modern world and the responsibility of individuals as professionals. Recitation 3 hours per week for the second 5 weeks of the semester.
Agricultural Economics (AGEC)

AGEC1103 Principles of Agricultural Microeconomics (Sp, Fa) Introduction to agricultural economics, including a survey of the role and characteristics of agriculture businesses in our economic system. Basic economic concepts concerning price determination, profit maximization, and resource use are emphasized. The use of economic principles as applied to the production and marketing decisions made by managers of agricultural firms is demonstrated. Prerequisites: Graduate standing. MATH 1103.

AGEC2103 Principles of Agricultural Macroeconomics (Sp, Fa) Applications of economic principles to problems of agricultural production, distribution, and income: including a study of the interrelationships of agriculture and other segments of the economy; and the dynamic forces in the economy which affect agriculture. Prerequisites: MATH 1103.

AGEC2143 Agricultural Business Financial Records (Fa) Principles of small business recordkeeping and accounting practices are taught to allow students to gain hands-on experience with financial record keeping for a business. Resulting financial statements are analyzed to determine opportunities for enhancing financial efﬁciency, profitability or equivalent and AGEC 1103.

AGEC2303 Introduction to Agribusiness (Sp) Introduction to agribusiness issues as they relate to the production, processing, warehousing, and retail sectors of the agricultural industry. Coverage of methods and tools used to help agribusinesses evaluate business opportunities. Case studies serve to communicate concepts of product distribution, design, promotion and pricing in the development of a marketing plan. Prerequisite: AGEC 1103 or ECON 2023.

AGEC2403 On-Site Management 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 course work. Focus is on the use of statistical and optimization methods used in researching problems, economic theory, and applied decision making activities. Prerequisites: AGEC 1103 and MATH 2033.

AGEC3303 Food and Agricultural Marketing (Fa) Surveys consumer trends in food markets and the marketing activities of the food industry. Emphasizes marketing concepts for farm and agribusiness commodities and differentiated 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 profession sales persons and sales practices and techniques. Prerequisites: AGEC 1103 or AGEC 2103 or ECN 2013 or ECON 2143 or equivalent.

AGEC3373 Futures and Options Markets (Sp) Theory and mechanism of 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 commodity markets and alternatives to commodity speculation and hedging simulation exercises. Prerequisite: AGEC 1103 or ECON 2023.

AGEC3403 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 techniques (enterprise, partial, cash flow), balance sheet, income statement, cash flow, investment analysis and risk management. Recommended: AGEC 1103 (or ECON 2023), AGEC 2143, and AGEC 2903.

AGEC3413 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 ENVR 4413).

AGEC3503 Agricultural Law (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 tenancy; environmental laws in the use and ownership of farmland; water law; environmental protection; the productivity of agricultural land; and the law of sales and secured transactions in an agricultural context.

AGEC4005V Special Topics in Natural Resources Law (Even years, Sp) Principles of environmental and natural resource laws relevant to agriculture, food, and the environmental sciences; legal principles relating to regulation of water, air, hazardous substances, land, wildlife, livestock, and water rights. Principles of civil and criminal liabilities and other developing legal and regulatory issues relating to agricultural law. Prerequisites: AGEC 4000V Special 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, Fa, Su) (1-6) A supervised practical work experience in an agribusiness firm or a governmental or industrial organization having direct impact on agriculture in order to gain professional competence and insight and employment opportunities. Prerequisite: junior standing. May be repeated for up to 8 hours of degree credit.

AGEC402V Special Topics (Irregular) (1-4) Studies of selected topics in agribusiness, marketing, finance, and economics not available in other courses. Prerequisites: AGEC 4113 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 practice in the application of economics and statistical analysis to agricultural price analysis. Prerequisite: 5 hours, laboratory 2 hours per week. Prerequisites: AGEC 1103 (or ECON 2023), AGEC 2403, (introductory statistics AISTG 4003 or STAT 2303 or WCOB 1003) 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 analysis, and understanding of financial firms serving agriculture. Prerequisites: AGEC 2143 or WCOB 1033 recommended. Prerequisite: AGEC 1103 or (ECON 2023) and AGEC 2103 or (ECON 2013).

AGEC4163 Agicultural and Rural Development (Irregular) Examination of agricultural and rural development issues in less developed countries. Alternative agricultural production systems are compared, development theories examined, and consideration given to the planning and implementation of development programs. Prerequisites: AGEC 1103 or (ECON 2023).

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 economic and product marketing principles and economic theory to analyze varied marketing situations. Cases will be used for demonstrating the role that demand analysis and consumer behavior play in market management. Prerequisite: AGEC 3303.

AGEC4313 Agricultural Business Management (Fa) The planning, organizing, leading and controlling functions of management as they relate to agricultural business firms. Marketing of value-added products, budgeting, organizational structure, cost control, financial statements, capital budgeting and employee supervision and motivation. Case studies are used to teach communication and decision-making skills. Prerequisites: AGEC 2143 or equivalent, AGEC 2003 or equivalent.

AGEC4323 Agribusiness Entrepreneurship (Sp) Agribusiness entrepreneurship is the process of bringing food or rural-based products and services from concept to conceptualization to market. The course presents the entrepreneur with constraints facing individuals and firms operating in rural or isolated markets while emphasizing the steps in conceptualization, development, marketing, and delivery-selling of agribusiness rural products. Prerequisite: AGEC 1103 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, crop growers, soybean crushers, poultry firms, etc. Spreadsheet and statistical techniques are used to develop optimal hedging ratios. Prerequisite: AGEC 3373.

AGEC4813 Domestic and International Agricultural Policy (Fa) Agricultural and food policies studied from domestic and international perspectives. Examines public policy in terms of rational, content, and consequences. Economic framework used to assess policies to improve competitive structure, operation, and performance of U.S. and international agriculture and food, international trade, resource, technology, food marketing, and consumer policy analyses. Prerequisite: AGEC 1103 (or ECON 2023) and AGEC 2103 or (ECON 2013).

AGEC480V Special Problem (Sp, Su, Fa) (1-3) Individual reading and investigation of a special problem in agricultural economics not available under regular courses, under the supervision of the graduate faculty. Prerequisite: Graduate standing.

AGEC500V Special Problems (Sp, Su, Fa) (1-3) Direct applications of advanced study to special problems in agribusiness. Prerequisites: AGEC 5003V Internship in Agricultural Economics (Sp, Su, Fa) (1-3) On-the-job application of skills developed in the M.S. program.

AGEC5333 Agricultural and Environmental Resource Economics (Even years, Sp) An economic approach to problems of evaluating private and social benefits and costs of altering the environment. Emphasis given to the interaction of individuals, institutions, and technology in problems of determining an acceptable level of environmental quality. Prerequisite: Minimum of 3 hours Agricultural Economics or Economics at 3000 level or higher or PhD standing.

AGEC5343 Financial Management in Agriculture (Irregular) Covers advanced topics in agricultural finance. The general focus of the course is the financial management of non-corporate firms. Covers the basic tools of financial analysis including financial arithmetic, asset evaluation under risk, and financial analysis and planning using econometric models. Such topics covered include management of current assets, capital budgeting, capital structure, and institutions involved in agricultural finance. Prerequisite: Graduate standing.

AGEC5513 The Economics of Public Policy (Sp) This class will examine the impact of public policy on agricultural and other business sectors as well as households and individuals, particular in rural areas. Emphasis will also be placed on analyzing the potential impact of future policy changes. The course will focus on the application of welfare criteria and economic analyses to the problems and policies affecting resource allocation in agriculture and rural communities. Prerequisite: Graduate standing.

AGEC5540 Advanced Agribusiness Marketing (Fa) Application of quantitative techniques used to support management 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.

AGEC5543 Agribusiness 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 in a changing and competitive environment of agricultural firms and industries. Prerequisite: Graduate standing.

AGEC5563 Econometrics I (Fa) Use of economic theory and statistical methods to estimate economic models. The single equation model is examined emphasizing multicollinearity, autocorrelation, heteroskedasticity, binary variables and distributed lags and model specification. Prerequisites: MATH 2043 and knowledge of matrix algebra, which may be acquired as a corequisite. Prerequisites: AGEC 1103 or ECON 2023 or (AGEC 2403 or AGST 4023 or STAT 2303 or WCOB 1003). (Same as ECON 5613).

AGEC5573 Food Safety Law (Irregular) This course provides students with an introduction to food and public policy, including the rules and regulations for food, regulation of the organization of federal food law and regulatory agencies, government inspection and enforcement powers, food safety standards, food labeling, food advertising and product liability. Prerequisite: Graduate standing.

AGEC600V Master's Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

AGEC700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.
Grange, and others pertaining to membership, awards programs, benefits, and special recognition programs. Lecture and discussion. Two periods per week.
AGED1133 Methods in Agricultural Education (Fa) Methods and techniques in teaching agriculture at the secondary level. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: AGED 1031 or CIED 1011. Corequisite: AGED 1141L Ag Communications Lab (Sp, Fa) Corequisite: AGED 3142.
AGED1142 Agri Communications (Sp, Fa) An overview of communications in the agricultural, food, and life sciences, including newsletter design, slide presentations, newswriting, electronic communication and web publishing. Corequisite: AGED 3141L.
AGED11901L Small Power (Sp) Identification of styles and roles of leadership; development of leadership techniques and skills required in working with organizations; dynamics of group action; methods of resolving conflicts; ethical considerations for leaders; and personal skills development. Prerequisite: Junior standing.
AGED2432 Ag Reporting and Feature Writing (Odd years, Fa) This course will provide students an exposure to writing, interviewing, and editing news on agricultural issues. This course is designed for students who want to earn six hours of upper division courses. Prerequisite: Junior standing.
AGED2492 Professional Development in Agricultural Communications (Even years, Fa) Overview of professional and technical skills needed to succeed in internships and jobs in the field of agricultural communications. Prerequisite: Senior standing.
AGED4003 Issues in Agriculture (Sp, Fa) Lecture and discussion on local, national, and international issues related to agriculture, policy, environment, society, and science. Designed for students with at least six hours of upper division agricultural science courses. Prerequisite: Senior standing.
AGED400V Special Problems in Agricultural and Extension Education (Sp, Su, Fa) Individual study or research for advanced undergraduates in the field of agricultural and extension education. Prerequisite: Senior standing.
AGED4012 Program Development (Sp) Principles and concepts of program development, organization, supervised experience, and advisory committees. This course is a portion of pre-professional studies required for certification in agricultural education. Prerequisite: AGED 3133. (Same as AGED 401V)
AGED4102 Studies of selected topics in agricultural or extension education not covered in other courses. (Same as AGED 4102) May be repeated for up to 4 hours of degree credit.
AGED4103 Electronic Communications in Agriculture (Even years, Sp) An overview of communication technology in the agricultural, food and life sciences. Prerequisite: AGED 4102.
AGED4243 Graphic Design in AFLS Productions (Odd years, Even years, Sp) This course provides students with graphic design and software skills specific to industries in Agriculture, Food, and Life Sciences. Students will learn to use industry-standard software (InDesign, Photoshop, Illustrator, Microsoft Excel, etc.) to prepare text and graphics and package them for use in print production. Prerequisite: AGME 2903
AGED4343 Communication Campaigns in Agriculture (Even years, Fa) Students will develop understanding of the principles, practices and applications of social marketing, integrated marketing communications, advertising and public relations as they pertain to developing communication campaigns for the agricultural industry. Students will develop a communication campaign for an agricultural company and/or entity focused on a specific product or service. Prerequisite: Senior or Graduate status.
AGED4443 Principles of Technological Change (Fa) This course introduces a structured approach for dealing with the organizational and human aspects of technology transition, including the key concepts of resistance and change management, organizational change, communications, and processes by which professional change agents influence the introduction, adoption, and diffusion of technological change. This course may be offered as a web-based course. Prerequisite: Junior status.
AGED4632 Teaching Diverse Populations in Agricultural and Extension Education (Sp) This course is designed to provide students with an understanding of teaching diverse populations as applied to problems of practice in agricultural and extension education.
AGED475V Internship in Agr Educ (Sp, Su, Fa) 1-6 Scheduled laboratory. Prerequisite: Senior standing. Small Power Units/Turf Equipment Laboratory (Sp) An introduction to agricultural mechanics shop work to include hot and cold metal work, arc welding, and gas welding and cutting. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. AGME2693 Agricultural and Human Environmental Sciences (Fa) Analysis of fundamental crop and animal characteristics and laboratory assignments covering the contemporary use of microcomputers in agricultural research, production, and home economics. Major emphasis placed on using selected appropriate software packages. Lecture 2 hours per week, laboratory 2 hours per week.
AGED3042 Agricultural Construction Technology (Sp) Principles of building design and construction. Includes site selection calculating structural loads and computer aided design design. Safety practices, selection of building materials and determining costs are also included. Lecture is one hour and lab is two hours per week. Prerequisite: MATH 1203 and junior standing. AGME191L Small Power Units/Turf Equipment Laboratory (Sp) Testing, evaluation, and maintenance of engines, hydrostatic power transmission systems, and equipment commonly used in the turf and landscaping industries. Corequisite: AGME 3102. Prerequisite: MATH 1203.
AGED3102 Small Power Units/Turf Equipment (Sp) Principles of operation, adjustment, repair, maintenance, and trouble shooting of small air-cooled engines and power units, including various engine systems, service and maintenance and laboratory equipment and machine. Lecture 2 hours per week. Corequisite: AGME 3101L. Prerequisite: MATH 1203.
AGED3153 Surveying in Agriculture and Forestry (Fa) Techniques and procedures of surveying and mapping such as coordinate systems and characterizing the topography of agricultural and forest lands. Includes basic concepts of surveying: use and care of level, transit, distance measuring equipment: topographic mapping and public lands surveys. Lecture and laboratory 6 hours per week. Prerequisite: MATH 1203.
AGED3173 Electricity in Agriculture (Sp) Principles of electricity; wiring of home, farmstead and other agricultural structures; selection of electric motors and their care and application in the broad field of agriculture; lighting and special uses of electricity such as heating and electrical controls. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: MATH 1203.
AGED400V Special Problems (Sp, Su, Fa) 1-6 Individual research or study in electricity, irrigation, farm power, machinery, or buildings. Prerequisite: Senior standing.
AGED4011 Senior Seminar (Sp) For agricultural education, communication and technology majors. Covers how to prepare and present a report on a current topic, job opportunities, and professionalism. Prerequisite: Senior standing.
AGED402V Special Topics in Agricultural Mechanization (Irregular) Topics not covered in other courses or a more intensive study of specific topics in agricultural mechanization. Prerequisite: MATH 1203.
AGED4023 Mechanized Systems Management (Fa) Selection, sizing, and operating principles of agricultural machinery systems, including power sources and computer techniques applied to planning and management of mechanized systems. Corequisite: Lab component. Prerequisite: MATH 1203.
AGED4973 Irrigation (Sp) Methods of applying supplemental water to satisfy water needs of plants. Prerequisite: Lecture 3 hours. Corequisite: Lab component. 2 hours per week. Prerequisite: MATH 1203. Corequisite: Lab component. AGST400V Special Problems (Sp, Su, Fa) 1-6 Work on special problems of agricultural statistics or related areas. AGST4011 SAS Programming for Agricultural Sciences (Fa, Sp) An introduction to the SAS programming language with an emphasis on the reading and restructuring of data files, and the displaying of data in tabular and graphic forms. The course is taught using a hands-on approach.
AGED4023 Principles of Experimentation (Sp) Fundamental concepts of experimental and statistical methods as applied to agricultural research. Lecture 3 hours per week. Prerequisite: MATH 1203 or higher.
AGED402V Special Topics in Agricultural Statistics (Sp, Su, Fa) 1-6 Individual investigation of a special problem in some area of statistics applicable to the agricultural, food, environmental, and life sciences not available under existing courses. May be repeated for up to 6 hours of degree credit.
AGED5014 Experimental Design (Sp) Types of experimental designs, their analysis and application to agricultural research. Lecture 3 hours and laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: AGST 4011 and (AGST 4023 or STAT 4003).
AGED504V Special Topics (Irregular) Topics not covered in other courses or a broader-based study of specific topics in statis-
Course Descriptions

**Animal Science (ANSC)**

**ANSC1001L** Introductory to Animal Sciences Laboratory (Fa) Study of facilities used in production, processing, and management in agricultural animal. Identification, selection and evaluation of testing livestock, meat, and milk. Laboratory 3 hours per week.

**ANSC1032** Introductory Animal Sciences (Fa) Students will be introduced to biological sciences associated with modern systems of care and management of livestock. Foundation sciences include topics of nutrition, animal development, reproduction, physiology, nutrition, animal health, and animal behavior. Course will meet M, T, W, and R for the first eight weeks of the fall semester.

**ANSC1041** Introduction to Companion Animal Industry (Fa) The importance of companion animals and their allied industries will be discussed. Application of scientific principles to the care and management of companion animals, specifically dogs, cats, and horses, will be emphasized. Course will meet on T and R during the second week of the fall semester.

**ANSC1051** Introduction to the Livestock Industry (Fa) The importance of livestock and their allied industries will be discussed. Application of scientific principles to the care and management of livestock including principles of nutrition, feeding, and management of beef cattle, swine, sheep, and goats will be emphasized. Course will meet on M and W during the second eight weeks of the fall semester.

**ANSC2252L** Introductory 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, hog, and sheep.

**ANSC3622** Equine Law (Odd years, Fa) Horse ownership presents unusual, if not unique, legal issues. This course examines the basic understanding of commercial transactions in horses, tort liability, business structure, environmental laws and gaming regulation.

**ANSC4482** Companion Animal Management (Fa) Students will be introduced to the basic processes of protein digestion, amino acid, absorption, transport, metabolism, and utilization along with how biochemical function of proteins and their dynamic state affect nutritional status for animals and man. Prerequisite: BIOL 2043 and CHEM 1123.

**ANSC4523** Advanced Meats Technology (Even years, Su) Comprehensive review of recent advances in research relating to the various phases of livestock production. Prerequisite: ANSC 4522 or ANSC 4526.

**ANSC5743L** Advanced Analytical Methods in Animal Sciences Laboratory (Fa) Introduction into theory and application of special advanced analytical techniques used in animal research. Two 3-hour laboratory periods per week. (Same as POSC 5743L)

**ANSC781** Career Preparation and Development (Fa) The importance of preparing for a career in the animal sciences will be covered.
ANTH1011L Introduction to Biological Anthropology Laboratory (Fa) Laboratory exercises illustrating concepts of physical anthropology. Corequisite: ANTH 1013.

ANTH1011L Introduction to Biological Anthropology Laboratory (Fa) Laboratory exercises illustrating concepts of physical anthropology. Corequisite: ANTH 1013.

ANTH1013 Introduction to Biological Anthropology (Fa) An introductory perspective on the study of 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 1011M.

ANTH1023 Introduction to Cultural Anthropology (Sp, Su, Fa) Introduction to the nature of culture and its influence on human behavior and personality: comparative study of custom, social organization, and processes of change and integration of culture. May be repeated for up to 12 hours of degree credit.

ANTH1030 World Prehistory (Irregular) Survey of the prehistoric and early historic cultures of the Americas, Asia, and Africa. ANTH2021L Archeology Laboratory (Sp, Fa) Laboratory exercises illustrating concepts of anthropological archaeology. Corequisite: ANTH 2023.

ANTH2032 Approaches to Archeology (Sp, Fa) Study of the field of archeology including method, theory, analysis and interpretation with substantive worldwide examples. Corequisite: ANTH 2021L.

ANTH2033 Egyptian Archaeology (Sp) Exploration of the history and contributions of ancient Egyptian civilization including chronology, art, religion, literature and daily life. Prerequisite: Junior standing.

ANTH2123 The Anthropology of Religion (Sp) An exploration of ritual, 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.

ANTH3143 Language and Expressive Culture (Irregular) This course explores the complex interrelationship of language, culture, and social identity. Verbal art and expressive culture are examined from a variety of perspectives, which include ethnography of speech, 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 and linguistic theory and analysis. Data drawn from various languages reveal linguistic universals as well as phonological, syntactical, and semantic systems of individual languages. Related topics: language history, dialectology, language change, and contemporary linguistic theory and research. Corequisite: Junior standing. (Same as COMM 3173, ENGL 3173, WLLC 3173).

ANTH3213 Indians of North America (Irregular) Study of the Indians of North America, focusing on 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 PLS 3273, SOCI 3253).

ANTH3263 Indians of Arkansas and the South (Odd years, Sp) Study of the traditional lifeways and prehistoric backgrounds of Indians living in the Southern United States. Corequisites: Royal 3421L Human Osteology Laboratory (Sp) Laboratory exercises illustrating concepts of human osteology. Corequisite: ANTH 3423.


ANTH3433 Human Reproduction (Sp) A study of human evolution from origin to the present, including trends in comparative primate evolution and functional development of human form as a result of cultural and biological interaction.

ANTH3434 Criminal Anthropolgy: Forensic Sciences (Irregular) Introduction to forensics focused on the scientific analysis of physical and biological evidence encountered in criminal investigations. Chemical, microscopic, biological, and occupational techniques employed in the analysis of evidence will be described, discussed, and illustrated within an investigative framework. Topics include inorganic remains, fiber, tissue, human identification, fingerprints, tools, and weapons.
Borderlands (Irregular) An exploration of the interplay between Latinx, Mexican, Anglo, and Native American identities and cultures along the border. This course examines border dynamics, hybridity, social tension, marginalization, race and gender, and from an anthropological perspective, paying special attention to the border as theoretical construct as well as material reality.

ANTH4633 Archeological Prospecting & Remote Sensing (Odd years, Fa) Ground-based geophysical, aerial, and other remote sensing surveys are examined for detecting, mapping, and understanding archeological and other deposits. These methods include magnetometry, resistivity, conductivity, radar, aerial photograp

ANTH4635 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 decision models. Several raster GIS programs are examined with links to statistical analysis software. Prerequisite: ANTH 4533 or GEOG 4533.

ANTH4800 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 Ethnographic 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 relationships between modern theories of culture and anthropology. May be repeated for credit.

ANTH4863 Quantitative Anthropology (Irregular) Introduc
tory statistics course for anthropology students examines probability theory, nature of anthropological data, data graphics, descriptive statistics, probability distributions, test for means and variances, categorical and rank methods, ANOVA, correlation and regression. Lectures focus on theory, methods, and social statistics software. (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, study, 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 SLSC 4923)

ANTH500V Advanced Problems in Anthropology (Sp, Su, Fa) (1-18) Individual investigation of clearly defined problems or problem areas. May be repeated for up to 18 hours of degree credit.

ANTH5043 Advanced Vector Geographic Information System (Irregular) Advanced vector data applications and analysis. Topics will include topological analysis, network analysis, geocoding, conflation, implications of source and product map scale, map generation, error mapping, and cartographic production. Prerequisite: ANTH 4633 or GEOG 4633 or equivalent. (Same as ENGS 5033, GEOG 5033)

ANTH5053 Quaternary Environments (Irregular) An interdisciplinary study of the Quaternary Period including dating methods, deposi

ANTH4833 Peoples and Cultures of Sub-Saharan Africa (Irregular) An exploration of the people and places of Africa from a variety of anthropological perspectives. Classic and contemporary works will be studied in order to understand the unity and diversity of African cultures, as well as the importance African societies have played in the evolution of both academic and cultural resources management research. May be repeated for up to 6 hours of degree credit.

ANTH5633 Advanced Archaeological Prospecting (Irregular) This course offers advanced training in applications of archaeological geophysics. Emphasis is placed on theory, instrument handling, use of advanced software, and the interpretation of data. Five principal methods: magnetometry, electrical resistivity, electromagnetic induction, ground-penetrating radar, and thermal infrared imaging. Prerequisite: ANTH 4633.

ANTH600V Master's Thesis (Sp, Su, Fa) (1-6) Individual investigation of clearly defined problems or problem areas. May be repeated for up to 6 hours of degree credit.

ANTH600V Master's Thesis (Sp, Su, Fa) (1-6) Individual investigation of clearly defined problems or problem areas. May be repeated for up to 6 hours of degree credit.

ANTH600V Master's Thesis (Sp, Su, Fa) (1-6) Individual investigation of clearly defined problems or problem areas. May be repeated for up to 6 hours of degree credit.

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ANTH600V Master's Thesis (Sp, Su, Fa) (1-6) Individual investigation of clearly defined problems or problem areas. May be repeated for up to 6 hours of degree credit.

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architectural studies degrees.

ARCH111 Leadership By Design I (Fa) Introduces time management, study strategies, promotes solutions for maintaining personal health, and develops communication and leadership skills intended to benefit education, career, and the community.

ARCH1103 Diversity and Design (Fa) Explores the reciprocal relationship between design in America, investigating how race, gender, religion, ability, age, class, and location affect and are affected by the design of media, products, architecture, and cities/regions. Positive and negative effects of diversity and design are discussed.

ARCH1103H Honors Diversity and Design (Fa) Explores the reciprocal relationship between diversity and design in America, investigating how race, gender, religion, ability, age, class, and location affect and are affected by the design of media, products, architecture, and cities/regions. Positive and negative effects of diversity and design are discussed.

ARCH1104 Architectural Design I (Sp, Fa) Sees drawing, drafting, analysis and graphic communication. Subject and object: expression and craft. Studio and seminars 12 hours per week. Corequisite: ARCH 1122.

ARCH1101 Leadership by Design II (Sp) Introduces time management, study strategies, promotes solutions for maintaining personal health, and develops communication and leadership skills intended to benefit education, career, and the community. Continuation of ARCH 1101.

ARCH1103H Architecture 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 1122.

ARCH1121 Design Methods I (Sp, Fa) Interdisciplinary 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.

ARCH1122 Design Methods II (Sp, Su) Theoretical, formal, and constructive principles and their impact in the design disciplines, modernism and after. Introduction to the intellectual and philosophical foundations of design theory. Lecture 1 hour per week. Corequisite: ARCH 1024. Prerequisite: ARCH 1121.

ARCH2161 Architectural Design III (Fa) Introduction of formal principles and strategies used in space making, focusing on the development of individual design space. Precedents and the possibility of using them through analysis and synthesis 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 2333. Prerequisite: ARCH 2122.

ARCH2126 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 structural section, and exterior expression; the role of site as a generator of form; and the overarching importance of techniques, including the materiality of space, structure, and light. Corequisite: ARCH 2124. Prerequisite: ARCH 2161.

ARCH2126 Architecture Theory I (Fa) Introduction to the fundamentals of building systems technology. Emphasis on the interrelationships of site, environmental, structural, and enclosure systems. Focus on the integration of all systems within the conceptual and functional organization of the building and its context. Corequisite: ARCH 2126. Prerequisite: ARCH 2161.

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 the 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 steel framing systems; introduction to indeterminate structures; 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 2124. Prerequisite: ARCH 2114 and PHYS 1044.

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 the 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 steel framing systems; introduction to indeterminate structures; 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 2124. Prerequisite: ARCH 2114 and PHYS 1044.

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ARCH2122 Architectural Technology V (Sp, Fa) Emphasis on structural, mechanical, plumbing, electrical, fire protection, natural and electric lighting systems and environmental considerations of energy usage, code requirements, and system selection and integration. Three hours lecture and three hours laboratory exercises in principles and practices of architectural technology each week. Corequisite: ARCH 2124. Prerequisite: ARCH 2122.

ARCH2134H Honors Architectural Technology I (Fa) Introduction to the fundamentals of building systems technology. Emphasis on the interrelationships of site, environmental, structural, and enclosure systems. Focus on the integration of all systems within the conceptual and functional organization of the building and its context. Corequisite: ARCH 2126. Prerequisite: ARCH 2161.

ARCH2114H Honors Architecture Technology I (Fa) Introduction to the fundamentals of building systems technology. Emphasis on the interrelationships of site, environmental, structural, and enclosure systems. Focus on the integration of all systems within the conceptual and functional organization of the building and its context. Corequisite: ARCH 2126. Prerequisite: ARCH 2161.

ARCH303V Special Projects (Irregular) (1-6) Individual or group project concerning special interests of student or faculty. Prerequisites: ARCH 2124, ARCH 2233, ARCH 2243, and ARCH 4433.

ARCH3016 Architectural Design V (Fa) Emphasizes critical issues of design process, exploration of internal and external determinants of form and the integration of appropriate technologies in design solutions. Corequisite: ARCH 3134. Prerequisite: ARCH 2206.

ARCH3026 Architectural Design VI (Sp) Studio-based analysis and synthesis of building projects, 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.

ARCH303VH Honors Special Projects (Irregular) (1-6) Individual or group project in research, visual communication, history, or design concerning special interests of student or faculty. Prerequisites: ARCH 2124, ARCH 2233, ARCH 2243, and ARCH 4433.

ARCH3016 Architectural Design V (Fa) Emphasizes critical issues of design process, exploration of internal and external determinants of form and the integration of appropriate technologies in design solutions. Corequisite: ARCH 3134. Prerequisite: ARCH 2206.

ARCH3026 Architectural Design VI (Sp) Studio-based analysis and synthesis of building projects, 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.

ARCH303VH Honors Special Projects (Irregular) (1-6) Individual or group project in research, visual communication, history, or design concerning special interests of student or faculty. Prerequisites: ARCH 2124, ARCH 2233, ARCH 2243, and ARCH 4433.

ARCH4026 Architectural Design VIII (Sp) Emphasis on issues of design process, exploration of internal and external determinants of form and the integration of appropriate technologies in design solutions. Corequisite: ARCH 3134. Prerequisite: ARCH 2206.

ARCH3016 Architectural Design V (Fa) Emphasizes critical issues of design process, exploration of internal and external determinants of form and the integration of appropriate technologies in design solutions. Corequisite: ARCH 3134. Prerequisite: ARCH 2206.

ARCH3026 Architectural Design VI (Sp) Studio-based analysis and synthesis of building projects, 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.

ARCH303VH Honors Special Projects (Irregular) (1-6) Individual or group project in research, visual communication, history, or design concerning special interests of student or faculty. Prerequisites: ARCH 2124, ARCH 2233, ARCH 2243, and ARCH 4433.

ARCH4026 Architectural Design VIII (Sp) Emphasis on issues of design process, exploration of internal and external determinants of form and the integration of appropriate technologies in design solutions. Corequisite: ARCH 3134. Prerequisite: ARCH 2206.

ARCH4016 Architectural Design VII (Fa) Emphasis on issues of typology, context and technological suitability as sources of theoretical and developmental responses. Prerequisite: ARCH 3026.

ARCH4023H Honors Advanced Architectural Studies (Sp, Fa) Emphasis on structural, mechanical, plumbing, electrical, fire protection, natural and electric lighting systems and environmental considerations of energy usage, code requirements, and system selection and integration. Three hours lecture and three hours laboratory exercises in principles and practices of architectural technology each week. Corequisite: ARCH 2124. Prerequisite: ARCH 2124.

ARCH4016 Architectural Design VII (Fa) Emphasis on issues of typology, context and technological suitability as sources of theoretical and developmental responses. Prerequisite: ARCH 3026.

ARCH5016H Honors Degree Project I (Sp) Degree project development dependent upon the synthesis of knowledge and application of critical thinking addressing architectural issues at multiple scales.

ARCH5016H Honors Degree Project II (Su) Degree project development dependent upon the synthesis of knowledge and application of critical thinking addressing architectural issues at multiple scales.

ARCH4610 Architecture of the City (Sp, Fa) Analysis of urbanism and the public realm. Focus on the integration of the design of urban structures and the surrounding landscape. Prerequisites: ARCH 2233, ARCH 2243, and ARCH 4433.

ARCH4932 Architectural Research Methods (Fa) Investigation into the practical, theoretical, and methodological strategies necessary for embarking upon architectural inquiry and discourse at a sophisticated level, for instance, in the form of a year-long thesis or independent project. Practical issues of method, such as research skills, literature review, and argument analysis are examined. The classic range of tools for interpreting architecture are surveyed from single-cause explanations (e.g., formalism) to more recent multi-causal theories (e.g., Semiotics, Deconstruction, Post-colonial theory, etc.) for architectural design. Prerequisite: ARCH 2233, ARCH 2243, and ARCH 4433.
Art Education (ARED)

ARED3603 Public School Art for Elementary Schools (Sp, Fa) An introduction to the methods and techniques of art for students planning to teach elementary art. Prerequisite: ARTS 1303 and 1304 and ARTS 1313.

ARED3623 Teaching Art in Elementary Schools (Sp) Philosophy of education and methods and techniques used in teaching elementary art. Prerequisite: ARED 3313.

ARED4633 Individual Research in Art Education (Sp, Fa) Independent study in specified areas of art education. Prerequisite: 6 hours of education.

ARED76V 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 involving the school and community. Prerequisite: BFA degree in Art Education.

Art History (ARHS)

ARHS1003 Basic Course in the Arts: Art Lecture (Sp, Su, Fa) An introduction to the visual arts. Lectures on theory and criticism, demonstrations, films, and slides. Three hours a week plus attendance at specified programs and exhibits. May not be counted toward satisfaction of the B.A. fine arts requirement by art majors.

ARHS1003H Honors Basic Course in the Arts: Art Lecture (Sp, Su, Fa) An introduction to the visual arts. Lectures on theory and criticism, demonstrations, films, and slides. Three hours a week plus attendance at specified programs and exhibits. May be counted toward satisfaction of the B.A. fine arts requirement by art majors.

ARHS1913 American Art to 1900 (Odd years, Fa) An introduction to American art from the Colonial era to the present. Prerequisite: ARHS 2913.

ARHS2833 Special Topics in Art History (Irregular) Subject matter covering research opportunities in areas of art history and criticism. Prerequisite: 12 hours of Art History.

ARHS2913 Art History Survey I (Sp, Fa) Survey of art from the beginning of Western art to the Renaissance. Prerequisite: ARHS 2923.

ARHS2923 Art History Survey II (Sp, Fa) Survey of art from the Renaissance to the present. Prerequisite: ARHS 2923.

ARHS3833H Honors Ancient Art (Irregular) Selective study of the major styles and periods of art from the earliest times. Prerequisite: ARHS 2923.

ARHS3913 Art History Survey III (Sp) Survey of art from the early Renaissance to the Industrial Revolution. Prerequisite: ARHS 2923.

ARHS4913 Art History Survey IV (Sp) Survey of art from the late nineteenth century to the present. Prerequisite: ARHS 2923.

ARHS4913H Honors Ancient Art (Irregular) Selective study of the major styles and periods of art from the earliest times. Prerequisite: ARHS 2923.

ARHS4933H Honors Special Topics in Art History (Irregular) Subject matter covering research opportunities in areas of art history and criticism. Prerequisite: 12 hours of Art History.

ARHS4943 Seminar in Art History (Sp, Fa) Seminar dealing with an advanced topic in art history. Prerequisite: 9 hours of Art History.

ARHS4943H Honors Seminar in Art History (Sp, Fa) Seminar dealing with an advanced topic in art history. Prerequisite: 9 hours of Art History.

ARHS4963 Individual Research in Art History (Sp, Fa) Independent study in specified areas of art history and criticism. Prerequisite: 12 hours of Art History.

ARHS4983 Special Topics in Art History (Irregular) Subject matter covering research opportunities in areas of art history and criticism. Prerequisite: 12 hours of Art History.

ARHS5943 Seminar in Art History (Sp, Fa) Seminar dealing with an advanced topic in art history. Prerequisite: 9 hours of Art History.

ARHS6943 Seminar in Advanced Topics in Art History (Irregular) Seminar dealing with advanced research in art history. Prerequisite: 9 hours of Art History.

Arts and Sciences (ARSC)

ARSC1001 Fulbright Perspectives (Fa) Open to incoming freshman and transfer students participating in the university’s First Year Experience. Available for credit only.

ARSC300V Studio Abroad (Sp, Su, Fa) Undergraduate students studying abroad in officially sanctioned programs. May be repeated for up to 15 hours of degree credit.

ARSC310V Cooperative Education (Sp, Su, Fa) (1-4) Required of students in cooperative education work assignments. Available for credit only. May be repeated for up to 36 hours of degree credit.

ARSC500V Studio Abroad (Sp, Su, Fa) Undergraduate 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.

ARTS1013 Drawing Fundamentals I (Sp, Fa) Problems dealing with materials and techniques of drawing, including basic concepts of line, form, and space. Prerequisite: ARTS 1003.

ARTS1113 Two-Dimensional Design (Sp, Fa) Studio problems in the use of line, shape, texture, value, and color and their relationships.

ARTS1303 Three-Dimensional Design (Sp, Fa) Studio problems with the elements of three-dimensional design: structure, space, form, and surface, and their relationships.

ARTS2003 Drawing Fundamentals II (Sp) Continuation of drawing fundamentals. Prerequisite: ARTS 1113.

ARTS2013 Figure Drawing I (Sp, Fa) Continuation of drawing fundamentals with emphasis upon human figure studies. Prerequisite: ARTS 1013.

ARTS2313 Computer Applications in Art (Sp, Fa) Introduction to digital imaging in the visual arts. Beginning instruction 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 1113.

ARTS3023 Drawing III (Fa) Advanced studies and problems in drawing techniques and materials. Prerequisite: ARTS 2013 and ARTS 2033.

ARTS3131 Painting I (Sp, Fa) An exploration of different ways of articulating visual forms on a picture plane, using common materials and procedures. Prerequisite: ARTS 2113 or ARTS 2133 or ARTS 2213 or ARTS 2233 or ARTS 2253 or ARTS 2313 or ARTS 2333 or ARTS 2353.

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 in a basis for observation, interpretation and invention. Prerequisite: ARTS 2113, ARTS 2133.

ARTS3203 Sculpture I: Fundamentals of Modeling, Carving & Casting (Fa) An introduction to fundamental additive and subtractive sculpture techniques and the use of modeling and working that give expression to material form. Beginning techniques in modeling, carving, mold-making, and basic casting are demonstrated. Lectures, readings, and critiques will develop student awareness of traditional building techniques as well as contemporary approaches. Prerequisite: ARTS 1113 and ARTS 2113 or ARTS 2133.

ARTS3213 Sculpture II: Construction Methods & Alternative Media (Sp) An introduction to material sensitivity through thoughtful creative approaches. Students will become familiar with traditional 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 2113.

ARTS3333 Color Studies (Fa) Investigation of color qualities and relationships through research and studio problems. Prerequisite: ARTS 1113 and ARTS 2213 and ARTS 2113.

ARTS3363 Graphic Design I (Sp, Fa) An overview of design principles and the application of design processes to posters, logos, stationery, and publication design. Conceptual development and visual and technical problems solving skills are emphasized. Prerequisite: ARTS 1013 and ARTS 2133.

ARTS3403 Etching I (Sp) Introduction to intaglio and relief. Prerequisite: ARTS 1113 and ARTS 2003 or ARTS 2033.

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.

ARTS3432 Some knowledge of photography preferred, but not mandatory. Prerequisite: ARTS 1113 and (ARTS 2003 or ARTS 2033 or ARTS 2053).

ARTS3435 Printmaking II (Sp) Advanced study with emphasis on intaglio and plate lithography techniques. Prerequisite: ARTS 3432.

ARTS3443 Serigraphy I (Su) Introduction to serigraphy techniques, including cut stencil, resist methods, and photoprinting on copper and plexiglass plates. Some knowledge of photography preferred, but not mandatory. Prerequisite: ARTS 3403 or (ARTS 2003 or ARTS 2033 or ARTS 2053).

ARTS3445 Serigraphy II (Su) Continuation of the study and use of serigraphy techniques. Prerequisite: ARTS 3443.
of serigraphy techniques. Prerequisite: ARTS 3443.

ARTS3463 Introduction to Printmaking (Su) Introduces the study of printmaking through primary methods used in relief, serigraphic, intaglio, and lithographic techniques. Prerequisite: ARTS 1013 and (ARTS 2003 or ARTS 2013 or ARTS 2023).

ARTS3503 Ceramics: Handbuilding I (Fa) This is an introductory course focusing on basic handbuilding techniques and basic ceramic processes including clay mixing, glaze making, and low temperature gas and electric firing techniques. Prereq: Or Coreq: ARTS 1013 and ARTS 1313 and ARTS 1322.

ARTS3523 Ceramics: Wheelthrowing I (Sp) This is an introductory course in ceramics focusing on basic wheelthrowing techniques and basic ceramic processes including clay mixing, glaze making, and low temperature gas and electric firing techniques. Prereq: Or Coreq: ARTS 1013 and ARTS 1313 and ARTS 1322.

ARTS3533 Ceramics: Wheelthrowing II (Fa) This course is an intermediate course in wheelthrowing and some handbuilding. A primary emphasis is on clay body and glaze calculation, and understanding the processes of firing low, high, and atmospheric kilns. Prerequisite: ARTS 3503 and ARTS 3523.

ARTS3543 Ceramics: Slips-Casting (Sp) This is an intermediate course in ceramic sculpture focusing on concept based making. The techniques taught are mold-making and slip-casting, along with an understanding of clay handling, glaze mixing, low and high temperature gas and electric firing techniques. Prerequisite: ARTS 3503 and ARTS 3523.

ARTS3553 Ceramics: Advanced Ceramic Processes (Su, Fa) Advanced B & W materials, techniques, and theory. Development of visual ideas through assignments, critiques, slide lectures, and demonstrations. Prerequisite: ARTS 1313.

ARTS3563 Lithography (Sp) Lithography and related graphic techniques. Prerequisite: ARTS 3503 or ARTS 3523 and ARTS 3533 and ARTS 3543. May be repeated for up to 6 hours of degree credit.

ARTS3564 Advanced Ceramics (Sp, Fa) This is an advanced course where any ceramic technique can be used. The course continues advanced study of glaze and clay calculation, and kiln design, building, and firing. Prerequisite: ARTS 3503 and ARTS 3523 and ARTS 3533 and ARTS 3543. May be repeated for up to 6 hours of degree credit.

ARTS3565 Advanced Ceramics (Sp, Fa) Projects on an advanced basis for advanced students in any area of art in which the catalog sequence of courses has been completed. May be repeated for up to 6 hours of degree credit.

ARTS3566 Advanced Ceramics (Sp, Fa) This project course explores the World Wide Web and the technologies and techniques involved in creating a successful Web Presence. Discussions include interactivity, usability and accessibility with an emphasis on handicapping standards-based HTML and cascading style sheets and a special attention to graphic design standards. Prerequisite: ARTS 3603.

ARTS3567 Visual Design: Web I (Sp) This course introduces students to the World Wide Web and the technologies and techniques involved in creating a successful Web Presence. Discussions include interactivity, usability and accessibility with an emphasis on handicapping standards-based HTML and cascading style sheets and a special attention to graphic design standards. Prerequisite: ARTS 3603.

ARTS3568 Advanced Ceramics (Sp, Fa) Advanced Ceramics I and II (Sp, Fa) This course will study advanced techniques in creating successful Web sites, including information architecture, HTML and cascading style sheets. Web animation, digital photography, storytelling and animation with current techniques. The course is designed for students involved in the production of Web pages.

ARTS3569 Advanced Ceramics (Sp, Fa) Elements of Animation (Fa) This course explores the fundamentals of sequential imaging and storytelling from traditional methods through modern animation software. computer based projects will make use of digital and video cameras, video editing software, Web animation software and a 3D animation package. Prerequisites: ARTS 1013, ARTS 1313, ARTS 1323.

ARTS3573 Advanced Ceramics (Sp, Fa) 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 through guidance of the instructor. Research evidenced in work, discussions, and critiques is emphasized. Prerequisite: ARTS 3203 and ARTS 3213.

ARTS3574 Advanced Ceramics (Sp, Fa) An exploration of the use of technology as a tool for creative expression, environmental art, light, and kinetics as they apply to contemporary sculptural language. Specific problems utilizing various media are preceded by readings, lectures, and demonstrations. Prerequisite: ARTS 3203.

ARTS3583 Advanced Ceramics (Sp, Fa) An exploration of the use of technology as a tool for creative expression, environmental art, light, and kinetics as they apply to contemporary sculptural language. Specific problems utilizing various media are preceded by readings, lectures, and demonstrations. Prerequisite: ARTS 3203.

ARTS3610 Advanced Studio Art (Sp) 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 through guidance of the instructor. Research evidenced in work, discussions, and critiques is emphasized. Prerequisite: ARTS 3203 and ARTS 3213.

ARTS3701 Visual Design: Motion Design (Irregular) In this course, students will explore motion graphic design as it combines 2D and 3D animation, typography, video footage photography and sound. The project involves scripting, interactive animation, compositing and animation principles that focus on Web and DVD delivery, using mainly Adobe Premier and After Effects. Prerequisite: ARTS 4563.

ARTS3702 Visual Design: Interactive Design (Sp, Fa) Students work on special projects on an individual basis with instructor, exploring innovative interface design, in-depth projects potentially exploring solutions to and awareness of social issues, with various types of media, from DVD and digital video to Web and motion graphics. Cross-discipline collaboration is encouraged. Prerequisites: ARTS 4563 and ARTS 4623 and ARTS 4653. May be repeated for up to 6 hours of degree credit.

ARTS3703 Digital Photography (Irregular) Introduction to digital photography production, techniques and theory. Digital input from scanning (flatbed & slide/negative), digital cameras, video and Internet sources. Computer assisted manipulation of imagery for correction and abstraction. Output to a digital printing systems, analog systems (film recorder), servers and Internet. Prerequisite: ARTS 3800.

ARTS3704 Color Photography I (Irregular) Introduction to color photography, principles, techniques and theory. Direct, reverse transparencies and prints, color negative processing and printing, and manipulation of color materials. Assignments, demonstrations, critiques, and lectures. Prerequisite: ARTS 3803.


ARTS3804 Special Problems in Photography (Sp, Fa) Individual research. Prerequisite: Admission to MFA program.
Course Descriptions

exercises on selected topics. Pre- or Corequisite: ASTR 2003.
ASTR2003 Survey of the Universe (Sp, Su, Fa) An introduction to the content and fundamental properties of the cosmos.
Topics include planets and other objects of the solar system, the
Sun, normal stars and interstellar medium, birth and death of stars,
neutron stars, pulsars, black holes, the Galaxy, clusters of galaxies,
and cosmology. Corequisite: ASTR 2001L or ASTR 2001M.
ASTR2003H Honors Survey of the Universe (Fa) An introduction to the content and fundamental properties of the cosmos.
Topics include planets and other objects of the solar system, the
Sun, normal stars and interstellar medium, birth and death of stars,
neutron stars, pulsars, black holes, the Galaxy, clusters of galaxies,
and cosmology. Corequisite: ASTR 2001M. May be repeated for up to
3 hours of degree credit.
ASTR301V Observational Astronomy (Irregular) (1-3)
Individual experimental or observational problems studied with small
telescopes, cameras, and other basic equipment. No credit is given
toward a B.S. degree in physics. Prerequisite: ASTR 2003 or ASTR
3003.
ASTR3033 Solar System Astronomy (Irregular) Basic
course on state of knowledge of solar system astronomy, especially
designed for students in B.A. Physics program or as an elective for
undergraduates in related areas. Prerequisite: PHYS 2033 and PHYS
2031L or PHYS 2074.
ASTR4013 Astrophysics (Even years, Sp) Introduction to
astrophysics for seniors. The course covers stellar evolution, interstellar medium, galactic nucleogenesis and observational cosmology.
Prerequisite: PHYS 3614 or CHEM 3504.
ASTR5013 Astrophysics (Odd years, Fa) Introduction to astrophysics. The course covers stellar evolution, interstellar medium,
galactic nucleogenesis and observational cosmology. Prerequisite:
PHYS 3614 or CHEM 3504.
ASTR5033 Planetary Systems (Fa) The nature of the solar system and other planetary systems as deduced from observations and
theoretical modeling. Structure and evolution of terrestrial and Jovian
planets and their satellites. Planetary atmospheres, magnetospheres,
and the solar wind; planetary interiors. Theoretical and observed
properties of exoplanetary systems; astrobiology.

Biological Engineering (BENG)
BENG1012 Biological Engineering Design Fundamentals
(Irregular) Introduction to the profession of Biological Engineering
including a definition, and demonstration through field trips, guest
speakers, examples of job opportunities and internships. Basic
engineering methodologies, including analysis and design, as applied
to biological systems. Introduction to problem solving, data analysis,
report writing, presentations, and engineering record keeping. Group
activities and team design efforts. Lecture 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 Studio. Design projects explore the unique
problems associated with engineering applied to biological systems.
Group activities to teach teamwork skills in the context of engineering
practice, including reporting, project management, time management, communication and balancing individual and team accountability. Introduction and application to a computer aided graphics
package. Lecture 1 hour, laboratory 3 hours per week. Prerequisite:
BENG 1012 or GNEG 1103. Corequisite: Lab component.
BENG2612 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 watershed 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: GNEG 1121.
Pre- or Corequisite: PHYS 2054, BIOL 1543/1541L.
BENG2622 Biological Engineering Design Studio III (Sp)
Continuation of BENG 2612. Design Studio experience includes
additional life support system design modules. Design process will
include discussion of social issues and ethics, use of engineering
economics as a tool to evaluate design alternatives. Use of descriptive statistics and regression to analyze experimental data. Improve
written and oral communication skills through presentation of design
project results. 4 hours of design studio per week. Prerequisite:
BENG 2612.
BENG3213 Biomedical Engineering: Emerging Methods
and Applications (Sp) Introductory course for undergraduate
biomedical engineering students. Emerging biomedical engineering
topics including: tissue engineering, stem cell engineering, biomedical nanotechnology, medical imaging and biosensing, single molecule
imaging, biomarker discovery and proteomics, gene therapy, drug
delivery, and protein engineering. Design of components for tissue

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engineering processes, nanodrug delivery and nanotechnology based
disease detection. Lecture 3 hours per week. Prerequisite: BIOL
2533. Pre- or Corequisite: BENG 3723.
BENG3712 Engineering Properties of Biological Materials
(Fa) Measuring and predicting the physical, 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 2622.
BENG3723 Unit Operations in Biological Engineering
(Sp) Design of basic unit operations typical of biological engineering
practice; unit operations include pump-pipe, fan-duct, moist air
(psychrometric) processes (cool/heater/humidifier/dryer), air mixing,
aeration, and refrigeration; unit operations design will account for
unique constraints imposed by biological systems. Lecture 2 hours
and lab 3 hours per week. Corequisite: Lab component. Prerequisite:
(MEEG 2403 or CHEG 2313) and (CVEG 3213 or CHEG 2133 or
MEEG 3503).
BENG3733 Transport Phenomena in Biological Systems
(Fa) Applications of the principles of kinetics and heat and mass
transfer to the analysis and design of biological engineering processes. Biological engineering processes will encompass examples in
the realms of biotechnology, ecological, and biomedical engineering.
Lecture 3 hours per week. Prerequisite: MATH 3404 and BENG 3723.
Pre- or Corequisite: CHEM 3813.
BENG3803 Mechanical Design in Biological Engineering (Sp) Introduction to the mechanical design process applied to
biological engineering, with examples of mechanical components
interfacing with biological systems. Engineering properties of materials, loading, combined stress analysis, theories of failure. Systems
approach in design, including safety, reliability and cost. Lecture 2
hours, laboratory 3 hours per week. Corequisite: Lab component.
Prerequisite: MEEG 3013.
BENG4104 Electronic Instrumentation for Biological
Systems (Sp) Theory and advanced applications of analog circuits,
digital circuits, and commercial instruments involving biological
materials and systems. Lecture 3 hours, laboratory 3 hours per week.
Prerequisite: PHYS 2074.
BENG4104H Honors Electronic Instrumentation for
Biological Systems (Sp) Theory and advanced applications of
analog circuits, digital circuits, and commercial instruments involving
biological materials and systems. Lecture 3 hours, laboratory 3 hours
per week. Prerequisite: PHYS 2074 .
BENG4113 Risk Analysis for Biological Systems (Odd
years, Fa) Principles of risk assessment including exposure assessment, dose response, and risk management. Methods of risk analysis
modeling and simulation with computer software. Applications of
risk analysis in medical, animal, food and environmental systems.
Prerequisite: MATH 2564 and BIOL 2013.
BENG4123 Biosensors & Bioinstrumentation (Odd
years, Sp) Principles of biologically based sensing elements and
interfacing techniques. Design and analysis methods of biosensing
and transducing components in bioinstrumentation. Applications of
biosensors and bioinstrumentation in bioprocessing, bioenvironmental, biomechanical and biomedical engineering. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite:
BIOL 2013 and BENG 4103.
BENG4133 Digital Remote Sensing and GIS (Irregular)
Basic digital image processing techniques and geo-spatial analysis
applied to monitoring of natural processes and resources. Course
topics include introduction to electromagnetic radiation, concept of
color, remote sensing systems, 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 with aerial and satellite 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.
BENG4203 Biomedical Engineering Principles (Fa)
Engineering principles applied to the design and analysis of systems
affecting human health. This is an introductory course focusing
on fundamentals of physiological systems and modeling and how
this relates to analysis and equipment design. Topics include:
brief overview of anatomy and physiology; bioelectric 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: MEEG 2013, (MEEG 2403 or CHEG 2313), ELEG
2103, (MEEG 3503 or CVEG 3213 or CHEG 2133), MEEG 3013, BIOL
1543 or equivalents.
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 computer simulation and mathematical modeling applications in biomedical engineering. Prerequisite:
MATH 3404.

BENG4283 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 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, Debye, Cole-Cole models. Role
of bound and free water on tissue properties. Magnetic response of
tissues. Experimental methods to measure tissue response. Applications to Electrocardiography & Electroencephalography, Microwave
Medical Imaging, RF Ablation will be discussed 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.
Prerequisites: ELEG 3703 or equivalent; MATH 3404 or equivalent;
basic biology. (Same as ELEG 4773)
BENG450V Special Problems (Sp, Su, Fa) (1-4) Selected
problems in biological engineering are pursued in detail. Prerequisite:
senior standing. May be repeated for up to 4 hours of degree credit.
BENG451VH Honors Thesis (Sp, Su, Fa) (1-6) Prerequisite:
Honors candidacy.
BENG452V Special Topics in Biological Engineering (Irregular) (1-6) Special topics in biological engineering not covered
in other courses. May be repeated for up to 8 hours of degree credit.
BENG4703 Biotechnology Engineering (Fa) Introduction to biotechnology topics ranging from principles 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 such as biofuels, and fine and
bulk chemical production. Lecture 2 hours, laboratory 3 hours per
week. Prerequisite: BENG 2622. Corequisite: Lab component.
BENG4813 Senior Biological Engineering Design I (Fa)
Design concepts for equipment and processes used in biological,
food and agricultural industries. Initiation of comprehensive twosemester team-design projects; defining design objectives, developing functional/mechanical criteria, standards, reliability, safety, ethics
and professionalism issues. Lecture 2 hours, laboratory 3 hours per
week. Corequisite: Lab component. Prerequisite: consent of instructor. Prerequisite: BENG 3723. Pre-or Corequisite: 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 methods, safety, ergonomics, analysis/synthesis/
design methods as appropriate for particular design projects. Laboratory/design 4 hours per week. Prerequisite: BENG 4813.
BENG4903 Watershed Eco-Hydrology (Sp) Engineering
principles involved in assessment and management of surface
water flow and hydrologic processes within ecosystems. 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. Prerequisite: CVEG 3213.
BENG4923 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, and filter strips. Design of sustainable
ecological processes for the treatment and utilization of wastes/
residues. Techniques may include: direct land 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 enhancement of
habitat for wildlife and recreation, and the discovery of economically
viable methods for coexistence of urban and agricultural land uses.
Lecture 3 hours per week. Prerequisite: BENG4903.
BENG500V 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.
BENG5103 Advanced Instrumentation in Biological
Engineering (Even years, Sp) Applications of advanced
instrumentation in biological systems. Emphasis on updated sensing and transducing technologies, data acquisition and analytical
instruments. Lecture 2 hours, lab 3 hours per week. Corequisite: Lab
component. Prerequisite: BENG 4103.
BENG5113 DIGITALRemote Sensing and GIS (Irregular)
Basic digital image processing techniques and geo-spatial analysis
applied to monitoring of natural processes and resources. Course
topics include introduction to electromagnetic radiation, concept of
color, remote sensing systems, and light attenuation by atmosphere,
objects and sensors. Advanced topics include data models, spectral

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transforms, spatial transforms, correction and calibration, geo-
rectification, and image classification with hyperspectral and multi-
spectral data. The emphasis will be on cellular physiology and cardio-
vascular system. Other topics included are advanced image analy-
sis, neuroanatomical and physiological correlates of brain com-
munication. We will develop the central electrical mechanisms from the
molecular to the ecosystem level. Discussion of software tools and
practices for advanced ecological services. Lecture 3 hours per
week. Students may not count towards BS in Biology. Corequisite: Bi-
omics and Bio-Mems (Irregular) Topics include the funda-
mental principles of microfluidics, Navier-Stokes Equation, bio/abio
interfacing techniques, and integration of microbiological
anatomy and physiology, bioelectic phenomena and neuronal
model, compartmental modeling, cardiovascular system and blood
flow, biomechanics, computational biology and signal transduction.
Requires a background in circuits, fluid dynamics, mechanics, biol-
ogy, and/or biochemistry. Lecture 3 hours per week. Students may not
earn credit for both BENG 5263 and BENG 4203. Prerequisites: MATH 3404
or equivalent and graduate standing.

BENG273 Numerical Methods in Biomedical Engineer-
(5p) Application of mathematical techniques and numerical
methods for analyzing biological data and solving biological prob-
lems. The emphasis will be 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.

BENG283 Electronic Response of Biological Tissues (Irregular)
Topics include the electronic response of biological tissues with
particular reference to neural and cardiovascular systems. Passive and
active forms of electric signals in cell commu-
nication. We will develop the central electrical mechanisms from the
membrane to the whole system. The emphasis will be on the
relationship between excitation and electrical signals. Lecture 3 hours per
week. Students may not earn credit for both BENG 5283 and BENG 4203. Prerequisites: MATH 3404 or equivalent and graduate standing.

BENG293 Watershed Eco-Hydrology (Sp) Engineering principles involved in design and analysis of surface
water flow and hydrologic processes within ecosystems. Includes
frequency analysis of rainfall, infiltration, runoff, evapotranspiration. Use of GIS/mathematical models to quantify hydrologic processes at
the watershed-scale landscape. Design/implementation of best
management practices and ecological engineering principles and
processes for advanced ecological services. Lecture 3 hours per
week. Students may not earn credit for both BENG 5493 and BENG 4003.
Prerequisites: CEG 2323 or equivalent.

BENG5933 Environmental and Ecological Risk Assess-
(5p) Process and methodologies associated with human-
environmental and ecological risk assessments. Environmental risk
assessments based on human receptors as endpoints, addressing
predominantly abiotic processes. Ecological risk assessments based
on non-human receptors as endpoints. Approaching using hazard
definition, effects assessment, risk estimation, and risk management.
Application of methods to student projects to gain experience in
defining and quantifying uncertainty associated with human perturba-
tion, management and restoration of environmental and ecological
processes.

BENG5932 Nonpoint Source Pollution Control and
(5p) Control of hydrologic, meteorologic, and landscape
factors on nonpoint source (NPS) pollution in urban and agricultural
watersheds. Discussion of water quality models to develop NPS
pollution control plans and total maximum daily loads (TMDLs),
with considerations for air-water interactions, surface and
bulk chemical production. Lecture 2 hours, laboratory 3 hours per
week. Students may not earn credit for both BENG 5743 and BENG 4703. Prerequisite: Graduate standing. Corequisite: Lab component.

BENG6801 Graduate Seminar (Sp) Reports presented by
graduate students on topics dealing with current research in agricul-
tural engineering. Prerequisite: Graduate standing.

BENG5793 Environmental and Ecological Risk Assess-
(5p) Process and methodologies associated with human-
environmental and ecological risk assessments. Environmental risk
assessments based on human receptors as endpoints, addressing
predominantly abiotic processes. Ecological risk assessments based
on non-human receptors as endpoints. Approaching using hazard
definition, effects assessment, risk estimation, and risk management.
Application of methods to student projects to gain experience in
defining and quantifying uncertainty associated with human perturba-
tion, management and restoration of environmental and ecological
processes.

BENG5932 Nonpoint Source Pollution Control and
(5p) Control of hydrologic, meteorologic, and landscape
factors on nonpoint source (NPS) pollution in urban and agricultural
watersheds. Discussion of water quality models to develop NPS
pollution control plans and total maximum daily loads (TMDLs),
with considerations for air-water interactions, surface and
bulk chemical production. Lecture 2 hours, laboratory 3 hours per
week. Students may not earn credit for both BENG 5743 and BENG 4703. Prerequisite: Graduate standing. Corequisite: Lab component.

BENG6801 Graduate Seminar (Sp) Reports presented by
graduate students on topics dealing with current research in agricul-
tural engineering. Prerequisite: Graduate standing.

BENG5793 Environmental and Ecological Risk Assess-
(5p) Process and methodologies associated with human-
environmental and ecological risk assessments. Environmental risk
assessments based on human receptors as endpoints, addressing
predominantly abiotic processes. Ecological risk assessments based
on non-human receptors as endpoints. Approaching using hazard
definition, effects assessment, risk estimation, and risk management.
Application of methods to student projects to gain experience in
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pollution control plans and total maximum daily loads (TMDLs),
with considerations for air-water interactions, surface and
bulk chemical production. Lecture 2 hours, laboratory 3 hours per
week. Students may not earn credit for both BENG 5743 and BENG 4703. Prerequisite: Graduate standing. Corequisite: Lab component.

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with considerations for air-water interactions, surface and
bulk chemical production. Lecture 2 hours, laboratory 3 hours per
week. Students may not earn credit for both BENG 5743 and BENG 4703. Prerequisite: Graduate standing. Corequisite: Lab component.

BENG6801 Graduate Seminar (Sp) Reports presented by
graduate students on topics dealing with current research in agricul-
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predominantly abiotic processes. Ecological risk assessments based
on non-human receptors as endpoints. Approaching using hazard
definition, effects assessment, risk estimation, and risk management.
Application of methods to student projects to gain experience in
defining and quantifying uncertainty associated with human perturba-
tion, management and restoration of environmental and ecological
processes.
BIOL4163 Dynamic Models in Biology (Irregular) Mathematical and computational techniques for developing, executing, and analyzing dynamic models arising in the biological sciences. Both discrete and continuous time models are studied. Applications include population dynamics, cellular dynamics, and the spread of infectious diseases, with particular emphasis on virus dynamics. (Same as MATH 4163)

BIOL4233 Genomics and Bioinformatics (Sp) Principles of molecular and computational analyses of genomes. Prerequisite: BIOL 4313.

BIOL4234 Comparative Physiology (Fa) Comparison of fundamental physiological mechanisms in various animal groups. Adaptations to environmental factors at both the organismal and cellular levels are emphasized. Lecture 3 hours, laboratory 3 hours per week. Corequisite: BIOL 2533 and CHEM 3613 and CHEM 3611.

BIOL4263 Cell Physiology (Fa) In-depth molecular coverage of cellular processes involved in growth, metabolism, transport, excitation, signaling and motility, with emphasis on function and regulation in eukaryotes, primarily animals. Prerequisite: BIOL 2533 and BIOL 2323 and CHEM 3813 and PHYS 2033.

BIOL4313H Honors Cell Physiology (Fa) In-depth molecular coverage of cellular processes involved in growth, metabolism, transport, excitation, signaling and motility, with emphasis on function and regulation in eukaryotes, primarily animals. Prerequisite: BIOL 2533 and BIOL 2323 and CHEM 3813 and PHYS 2033.

BIOL4304 Plant Physiology (Fa) Plant processes. Lecture 5 hours, laboratory 3 hours per week. Corequisite: BIOL 1611 and BIOL 1611L. Component. Prerequisite: BIOL 1613 and BIOL 1611 and BIOL 1543 and BIOL 1541, and general chemistry.

BIOL4313 Molecular Cell Biology (Sp) In-depth molecular coverage of cell functions, transcription, translation, and protein processing in eukaryotes and prokaryotes. Prerequisite: BIOL 2533 and BIOL 2323 and CHEM 3603 and CHEM 3613 and CHEM 3611.

BIOL4313H Honors Molecular Cell Biology (Sp) In-depth molecular coverage of transcription, cell cycle, translation, and protein processing in eukaryotes and prokaryotes. Prerequisite: BIOL 2533 and BIOL 2323 and CHEM 3603 and CHEM 3611 and CHEM 3013. Component. Prerequisite: BIOL 1543 and BIOL 1541L.

BIOL4404 Comparative Botany (Sp) 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. Corequisite: BIOL 2323 and BIOL 2533.

BIOL4404H Honors Comparative Botany (Even 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. Corequisite: BIOL 2533 and BIOL 2323 and CHEM 3603 and CHEM 3611 and CHEM 3013. Component. Prerequisite: BIOL 1540.

BIOL4844 Community and Ecosystem Ecology (Odd years, Sp) A survey of the 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. Prerequisite: BIOL 2323.

BIOL4713H Basic Immunology Laboratory (Sp) Corequisite: BIOL 4713.

BIOL4713 Basic Immunology (Sp) An overview of immunity with emphasis on the underlying cellular, molecular, and genetic events, and discussions of more specialized issues in immunology, such as disease states involving the immune system, and other interesting problems in modern immunology. Lecture 2 hours, laboratory 4 hours per week. Corequisite: BIOL 2323 and BIOL 2533.

BIOL4724 Protistology (Odd years, Fa) The biology of eukaryotes other than animals, plants, and fungi with emphasis on morphology and modern approaches to phylogenetic systematics. Three lecture hours, four lab/wk. Involves writing term papers. Corequisite: Lab component or Corequisite: BIOL 4724 and graduate standing. Prerequisite: BIOL 2533 and BIOL 2323 or graduate standing.

BIOL4734 Wildlife Management Techniques (Odd years, Sp) To familiarize students with techniques used in the management of wildlife populations. Students will be exposed to field methods, approaches to data analysis, experimental design, and how to write a scientific paper. Management applications will be emphasized. Lecture 3 hours, laboratory 3 hours per week. Prerequisite: BIOL 3863.

BIOL4743 Marine Biology (Even years, Sp) Comprehensive survey of marine biology, focusing on the ecological bases of evolutionary change. Three lecture hours, 4 hours lab/week. Pre- or Corequisite: BIOL 3863.

BIOL4753 General Virology (Sp) An introduction to viral life-cycles, structure, and host cell interactions. Emphasis placed on molecular and biochemical aspects of virology. Two lecture hours and one discussion periods. Prerequisite: BIOL 2533.

BIOL4763 Ornithology (Even years, Sp) Taxonomy, morphol- ogy, physiology, behavior, and ecology of birds. Lecture, laboratory, and field work. Corequisite: Lab component. Prerequisite: BIOL 3863.

BIOL4774 Fishery Biometry (Even years, Sp) Introduction to the statistical tools and methods used in ecological, biological, and management sciences. Emphasis on biological, statistical and experimental design by actually designing experiments and analyzing data, as well as through lecture, discussion, reading, writing, and problem solving. Lecture 3 hours, laboratory 3 hours each week. Prerequisite: STAT 2023 or equivalent. Corequisite: BIOL 3863.

BIOL4783 Mammary (Even years, Fa) Lectures and laboratory dealing with classification, morphology, distribution, ecology, behavior, and physiology of mammals. Two lecture hours, 4 hours laboratory. Corequisite: Lab component. Prerequisite: 10 hours Biological Sciences.

BIOL4793 Introduction to Neurobiology (Sp) Exploration of the neurological underpinnings of perception, action, and experience including: how sense receptors convert information in the world into electricity, how information flows through the nervous system, how neural wiring makes vision possible, how the nervous system changes with experience, and how the system develops. Prerequisite: BIOL 2533.

BIOL480V Special Problems (Sp, Su, Fa) (1-6) For advanced students with adequate preparation. Prerequisite: BIOL 2533.

BIOL480VH Honors Special Problems (Sp, Su, Fa) (1-6) For advanced students with adequate preparation. Prerequisite: BIOL 2533.

BIOL4814 Limnology (Odd years, Fa) Physical, chemical and biological conditions of inland waters. Lecture 3 hours, laboratory by arrangement. Corequisite: Lab component. Prerequisite: (CHEM 1123 or 1121L) or equivalent and BIOL 3863 or instructor's permission.

BIOL4833 Animal Behavior (Odd years, Fa) Organization, regulation, and phylogeny of animal behavior, emphasizing invertebrates. Two lecture, laboratory, and field work. Corequisite: Lab component.

BIOL4844 Community and Ecosystem Ecology (Odd years, Fa) Survey of theoretical and applied aspects of community
processes stressing structure, trophic dynamics, community interactions, and major community types. Corequisite: Lab component.

Prerequisite: BIOL 3863.

BIOL45V Field Ecology (Sp, Su) (1-3) Project-oriented approach employing current field and laboratory techniques, experimental design, and data analysis. Field trip is required.

BIOL45AV Analysis of Animal Populations (Even years, Sp, Su) Basic principles of design and analysis for population studies of fish and wildlife species. 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 emphasized. Lecture 2 hours, laboratory 3 hours per week. Prerequisite: BIOL 3863. 8 hours of biological sciences. May be repeated for up to 6 hours of degree credit.

BIOL493V Special Topics in Zoology (Su) Discussion of recent outstanding zoological research of interest to zoology majors and public school science teachers. Prerequisite: 8 hours of biological sciences. May be repeated for up to 6 hours of degree credit.

BIOL508V Problems in Biological Sciences (Sp, Su, Fa) (1-4) Prerequisite: senior standing. May be repeated for up to 8 hours of degree credit.

BIOL509V Laboratory Problems in Biological Sciences (Sp, Su, Fa) (1-4) Prerequisite: senior standing. May be repeated for up to 8 hours of degree credit.

BIOL5001 Seminar in Biology (Sp, Su) Discussion of selected topics and current research problems in any area of the biological sciences. (Same as CEMB 5911) May be repeated for up to 2 hours of degree credit.

BIOL5003 Laboratory in Prokaryote Biology (Sp) Laboratory techniques in prokaryote culture, identification, physiology, metabolism, and genetics. Lecture and laboratory 5 hours per week. Prerequisite: BIOL 3123.

BIOL5063 Climate Through Time (Sp) The earth’s climate history over the past 200 million years and the influence of various factors have had on it; compilation and paleoclimatic histories and methods of dating climatic effects. Prerequisite: GEG 4983 or equivalent. (Same as ENDY 5683, GEOG 5683)

BIOL5233 Genomics and Bioinformatics (Sp) Principles of molecular and computational analyses of genomes. Prerequisite: BIOL 4313 or BIOL 5313.

BIOL5263 Cell Physiology (Fa) In-depth molecular coverage of cellular processes: ion and nutrient transport, metabolism, transcription, excitation, signaling and motility, with emphasis on function and regulation in eukaryotes, primarily plants. Prerequisite: BIOL 2233, BIOL 2523, BIOL 2531L, CHEM 3813, and PHYS 2033.

BIOL5264 Vascular Plant Physiology (Sp) Concepts of plant physiology with coverage of cell, tissue, organ, and whole plant processes. Prerequisite: BIOL 2233 and BIOL 2533L, CHEM 3801, CHEM 3813 and CHEM 3811L.

BIOL5334 Biochemical Genetics (Sp) Lectures and laboratory exercises based on modern molecular genetic techniques for analyses of eukaryotic and prokaryotic systems. Prerequisite: BIOL 2533 and BIOL 2533L, CHEM 3603 and CHEM 3601L, CHEM 3813 and CHEM 3811L.

BIOL5335 Molecular Cell Biology (Sp) In-depth molecular coverage of transcription, cell cycle, translation, and protein processing in eukaryotes and prokaryotes. Prerequisite: BIOL 2533 and BIOL 2533L, CHEM 3603 and CHEM 3601L.

BIOL5336 Molecular Biology (Sp) An introduction to modern molecular biology techniques: laboratory practices in gene identification, cloning, and characterization. Lecture 2 hours, laboratory 6 hours per week. Corequisite: Lab component. Prerequisite: BIOL 3323 (or equivalent) and CHEM 3813 (or equivalent).

BIOL5343 Advanced Immunology (Fa) Aspects of innate, cell-mediated, and humoral immunity in mammalian and avian species. Molecular mechanisms underlying the function of the immune system are emphasized. A course in Basic Immunology prior to enrollment in Advanced Immunology is recommended but not required. Lecture 3 hours per week. (Same as POSC 5343)

BIOL5352L Immunology in the Laboratory (Sp) Laboratory course on immune-diagnostic laboratory techniques and uses of antibodies as a research tool. Included are cell isolation and characterization procedures, immunochromatography, flow cytometry, ELISA and cell culture assay systems. Laboratory 6 hours per week. Prerequisite: POSC 5343 or BIOL 5343.

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 3323 or equivalent. May be repeated for up to 3 hours of degree credit.

BIOL539V Research in Genetics (Sp, Su, Fa) (1-4) Prerequisite: BIOL 2533.

BIOL5404 Comparative Botany (Odd years, Sa) A comparative approach to organisms classically considered to be plants with emphasis on systematics, relationships, morphology, and physiology. A hands-on course in three hours lecture, 4 hours lab per week. Prerequisite: graduate standing.

BIOL5423 Human Evolutionary Anatomy (Irregular) Paleo-

BIOL5433 Analytical Techniques (Even years, Fa) Advanced survey of the methods of evolutionary change with special emphasis on advances since the modern Synthesis. Historical, theoretical, and population genetics approaches are discussed. Recommended: BIOL 3233 and BIOL 3321L and BIOL 3801L. Prerequisite: BIOL 3233 and BIOL 3863.

BIOL5463 Physiological Ecology (Odd years, Sp) Interactions between environment, physiology, and properties of individuals and populations. Ecological and evolutionary scales. Prerequisites: BIOL 3863 and BIOL 4233.

BIOL5511L Population Ecology Laboratory (Even Years, Fa) Demonstration of the models and concepts from BIOL 5513. Prerequisite: BIOL 5513.

BIOL5513 Population Ecology (Even 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.

BIOL5523 Plant Ecology (Even years, Sp) To develop understanding of important ecological concepts through study of dynamics relationships between the environment and the vegetation. To become familiar with the literature of plant ecology, and interpretation and critique of ecological research. Prerequisite: BIOL 3864.

BIOL5524 Developmental Biology (Sp) An analysis of the concepts and methods underlying the manipulation of the experimental animal. Corequisite: Lab component.

BIOL5533 Chemical and Biochemical Aspects of Evolution (Odd years, Sp) Abiotic synthesis of biomolecules on Earth, the origin of the atmosphere, origin of life on Earth and elsewhere, evolution and diversity, ecological niches, bacteria, archaea, eukaryotes, novel metabolic reshaping of the environment, life being reshaped by the environment, molecular data and evolution. BIOL5533 Astrobiology (Irregular) Discusses the scientific basis for the possible existence of extraterrestrial life. Includes the origin and evolution of life on Earth, possibility of life elsewhere in the solar system (including Mars), and the possibility of life on planets around other stars. Prerequisite: Instructor consent. (Same as SPAC 5553)

BIOL558V Research in Cell Biology (Sp, Su, Fa) (1-6) May be repeated for up to 18 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 understanding that both the tricks pathogens use and the body’s own defenses contribute to pathologies. BIOL5713 Basic Immunology (Sp) A general overview of Immunity with emphasis on the underlying cellular, molecular and genetic events controlling immune reactions. Reading of the primary literature on disease states involving the immune system. BIOL5723 Fish 2303. Lecture and laboratory 3 hours. Prerequisite: BIOL 2233 or equivalent.

BIOL5734 Herpetology (Even years, Sp) Morphology, classification and ecology of amphibians and reptiles. Lecture 2 hours, laboratory 1 hour per week. Corequisite: Lab component. Prerequisite: 12 hours of biological sciences.

BIOL5743 Herpetology (Even years, Sp) Morphology, classification and ecology of amphibians and reptiles. Lecture 2 hours, laboratory 1 hour per week. Corequisite: Lab component. Prerequisite: 12 hours of biological sciences.

BIOL5753 General Virology (Sp) An introduction to viral life-cycles, structure, and host cell interactions. Emphasis placed on molecular and biochemical aspects of virology. Two hour lecture and one hour discussion. Prerequisite: BIOL 2523 and BIOL 2323.

BIOL5763 Microbiology (Even years, Fa) Taxonomy, morphology, physiology, behavior, and ecology of birds. Lecture, laboratory, and field work. Corequisite: Lab component. Prerequisite: 10 hours of biological sciences.

BIOL5783 Vertebrate Paleontology (Fa) Lecture and laboratory dealing with classification, morphology, distribution, ecology, behavior, and physiology of mammals. Two hour lecture, 4 hours laboratory. Corequisite: Lab component.

BIOL579V Research in Vertebrate Zoology (Sp, Su, Fa) (1-6)

BIOL580V Research in Botany (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

BIOL5814 Limnology (Odd years, Sa) Physical, chemical and biological conditions of inland waters. Lecture 3 hours per week, laboratory arranged. Corequisite: Lab component. Prerequisite: (CHEM 1122 and CHEM 1122L) or equivalent and 12 hours of biological sciences. Prerequisite: BIOL 3864.

BIOL581V Research in Microbiology (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

BIOL630V Master’s Thesis (Sp, Su, Fa) (1-18) Prerequisite: Graduate standing. May be repeated for up to 18 hours of degree credit.
for up to 12 hours of degree credit.

CATE539V Competency Based Internship: Educational Legal Issues (Sp, Su, Fa) (3-6) In an actual school setting the student will satisfactorily demonstrate the competencies required to conduct a total vocational-technical education program. Instruction and follow-up will be provided by a University resource person. Prerequisite: Study of 12 credit hours of CATE 330V and employee inservice-vocational-technical education field based instructor. May be repeated for up to 24 hours of degree credit.

CATE4003 Introduction to Professionalism (Fa) Studying and developing educational concepts in career and technical education with accepted principles of professionalism in secondary education settings.

CATE4003H Honors Introduction to Professionalism (Fa) Studying and developing educational concepts in vocational education with accepted principles of professionalism applied to career and technical education settings.

CATE4013 Teaching Strategies (Fa) Methods and techniques in the preparation and delivery of instruction.

CATE4023 Classroom Management (Fa) Theory and techniques in classroom management, including professional ethics and school policies related to students, faculty and programs.

CATE4033 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.


CATE4053 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.

CATE4073 Career Technical Education 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 4053, CATE 4054, CATE 4063, CATE 4070, CIED 3023 and CIED 3033.

CATE4101 Understanding Student Affairs (Fa) This course provides students an opportunity to gain knowledge in the theory and problems applying to student affairs. Emphasis is 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 commonly accepted principles of leadership applied to workforce education settings.

CATE4063 Problems in Career & Technical Education (Sp, Su, Fa) (1-3) A study of special problems relating to technical education and career planning. May be repeated for up to 3 hours of degree credit.

CATE5004 Cohort Directed Field Experience (Sp, Su, Fa) A minimum of 15 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 supervision. Prerequisite: 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.

CATE5016 Cohort Teaching Internship (Sp, Su, Fa, Su) A study of methods of teaching and techniques of managing hands-on activities in career orientation class setting.

CATE5503 Trends and Issues in Technology Education (Sp, Su, Fa) A comprehensive technology education methods course pertaining to the teaching of standards-based curriculum materials.

CATE5543 Technology for Teaching and Learning (Su, Fa) A study of computer technology as it relates to teacher education. This course introduces the student to various teaching methods and techniques of hands-on technology activities that can be incorporated in an educational setting. Students interact with the instructor and other students via BlackBoard and engage in weekly discussions and acquire hands-on computer technology experience.

CATE5573 Instructional Materials (Sp, Su) A comprehensive course designed to give students the opportunity to understand, prepare, and test materials leading toward excellence in instruction.

Communication Disorders (CDIS)

CDIS2253 Introduction to Communicative Disorders (Sp, Fa) An introductory course which surveys the professional interests of speech-language pathology and audiology with specific attention 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 communica tion disorders.

CDIS3103 Introduction to Audiology (Fa) Introduction to the basic concepts for evaluating hearing and the anatomy and physiology of the auditory 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 Auditory Processing Disorders (Sp) A study of the definition, etiology, pathology, and treatment procedures of problems of speech, language, and audition.

CDIS3224 Language Development in Children (Fa) Study of the nature 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.

CDIS3244H Honors Language Development in Children (Fa) An honors study of the cognitive development of language and speech, including the role of research in child development, parent-child interaction, and intervention strategies. Prerequisite: CDIS 3213 and CDIS 3224.

CDIS3251 Anatomy of Physiology of the Speech and Hearing Mechanisms (Fa) Structure and function of the organic mechanisms responsible for speech, language, and audition.

CDIS3252 Language Development in Children, Families, and Schools (Fa) Study of the educational management of children, families, and schools with special attention to the role of research in clinical services, professional ethics, and the development of therapy models for the education and management of children and families with speech, language, and hearing impairments.

CDIS3253 Seminar in Language Disorders (Sp) A seminar surveying the role of language in health and society, including an introduction to the life cycle and the aging process.

CDIS3263 Advanced Audiology (Fa) Study of the structures and functions of the central and peripheral nervous systems as they relate to human speech, language, and cognition. Corequisite: 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 throughout 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.

CDIS5012 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 research, basic research designs, statistics 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 communication and social development. Topics include early communication development, service delivery in a family context, coordination with other disciplines, and legislation mandating services. Prerequisites: CDIS 2223 or equivalent, and graduate standing.

CDIS5121 Feeding and Swallowing Disorders Lab (Fa) Observation and interpretation of techniques used for assessment and remediation of feeding and swallowing disorders in children and adults. Corequisite: CDIS 5122. Prerequisite: CDIS 2231 and graduate standing.

CDIS5122 Feeding and Swallowing Disorders (Fa) Study of the etiology, assessment, and remediation of feeding and swallowing disorders in children and adults. Corequisite: CDIS 2231 or equivalent, and graduate standing.

CDIS5133 Discourse Analysis and Treatment (Fa) Study of discourse behaviors and discourse analysis procedures appropriate for children and adults who need to develop or restore discourse skills. 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 2233.

CDIS5163 Seminar in Language Topics (Sp, Su, Fa) 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 language impairment(s). Prerequisite: Graduate standing.

CDIS5193 Seminar in Problems of Oral Communication (Sp, Su, Fa) 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 (Su) Study of disorders of the voice and resonation, including etiologies, diagnoses, and intervention strategies. Prerequisite: Graduate standing.

CDIS5222 Fluency Disorders (Fa) Speech disfluency, including theoretical etiological assumptions and management consideration. Prerequisite: Graduate standing.

CDIS5232 Seminar in Maritalcure (Sp, Su) Etiology, diagnosis and treatment of disorders of speech articulation. Prerequisite: Graduate standing.

CDIS5243 Language Disorders in Adults (Sp) Cognitive and communicative breakdown due to neurological trauma, including etiology, characteristics, assessment and treatment for aphasia, traumatic brain injury, and right hemisphere disorders. Prerequisite:
CHEG1113 Introduction to Chemical Engineering (Fa) Introduction to the field of chemical engineering. Industries, careers, and the curriculum are discussed. Basic chemical engineering terms, concepts, and calculations are presented. Mass balance calculations are performed and the application of computers to chemical engineering problems is introduced. Prerequisite: CHEM 1103.

CHEG1123 Introduction to Chemical Engineering II (Sp)

CHEG3134 Chemical Engineering Reactor Design (Sp, Fa) Application of the principles of conduction, convection and radiation to the analysis and design of chemical processing heat transfer equipment and systems such as double-pipe and shell-and-tube heat exchangers, multiple-effect evaporators, condensors, and boilers. Prerequisite: CHEG 2133 and CHEG 2134.

CHEG3143H Honors Heat Transport (Sp, Fa) Application of the principles of conduction, convection and radiation to the analysis and design of chemical processing heat transfer equipment and systems such as double-pipe and shell-and-tube heat exchangers, multiple-effect evaporators, condensors, and boilers. Prerequisite: CHEG 2133 and CHEG 2134.

CHEG3333 Chemical Engineering Reactor Design (Sp, Su) Principles of kinetics of homogeneous and heterogeneous reactions, catalysis, and reactor design with applications, drawn from industrial processes. Prerequisite: CHEG 2133 and MATH 3404.

CHEG3333H Honors Chemical Engineering Reactor Design (Sp, Su) Principles of kinetics of homogeneous and heterogeneous reactions, catalysis, and reactor design with applications, drawn from industrial processes. Prerequisite: CHEG 2133 and MATH 3404.

CHEG4332L Chemical Engineering Laboratory II (Sp, Fa) Experimental investigations of fluid flow and heat transfer. Complete written reports are required. Prerequisite: CHEG 3134.

CHEG4323L Chemical Engineering Laboratory II (Sp, Fa) Experimental investigations of fluid flow and heat transfer. Complete written reports are required. Prerequisite: CHEG 3134.

CHEG4443H Honors Chemical Engineering Process Safety (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 4143 and CHEG 4163.

CHEG4813 Chemical Process Safety (Fa) Application of chemical engineering principles to the study of safety, health, and loss prevention. Fires and explosions, hygiene, toxicology, hazard identification, and risk assessment in the chemical process industries. Prerequisite: Senior standing.

CHEG4944H Honors Chemical Process Safety (Sp, Fa) Application of chemical engineering principles to the study of safety, health, and loss prevention. Fires and explosions, hygiene, toxicology, hazard identification, and risk assessment in the chemical process industries. Prerequisite: Senior standing.

CHEG5013 Membrane Separation and System Design (Fa) Theory and system design of cross flow membrane processes. Prerequisite: CHEG 3153.

CHEG5303 Technical Administration Seminar (Fall, Spring) Contem- porary issues affecting the domestic and global Chemical Process Industries (CPI). Emphasis is on process economics, market and corporate strategy as well as advances in technology to improve corporate earnings while addressing the threats and opportunities in the CPI. Prerequisites: Senior or graduate standing.

CHEG5113 Transport Processes I (Sp) Fundamental concepts and laws governing the transfer of momentum, mass, and heat. Prerequisite: CHEG 2133 (or equivalent) and MATH 3404.

CHEG5133 Advanced Reactor Design (Fa) Applied reaction kinetics with an emphasis on the design of heterogeneous reacting systems including solid surface catalysis, enzyme catalysis, and transport phenomena effects. Various types of industrial reactors, such as packed bed, fluidized beds, and other non-ideal flow systems are considered. Prerequisite: MATH 3404 and CHEG 3333.

CHEG5213 Advanced Chemical Engineering Calculations (Fa) Applications of developments of numerical solutions of equations and mathematical models of chemical processes and mechanisms. Prerequisite: CHEG 3333 and CHEG 3253.

CHEG5273 Corrosion Control (Sp) Qualitative and quantitative introduction to corrosion and its control. Application of the funda- ments of corrosion control in the process industries is emphasized. Prerequisite: CHEG 2133.

CHEG5313 Planetary Atmospheres (Fr) Origins of planetary
CHEG3504 Physical Chemistry (Fa) Introduction to atomic and molecular structure, kinetic theory of gases, and elementary statistical mechanisms. Lecture and recitation 4 hours per week. Pre- or Corequisite: MATH 2564. Prerequisite: CHEM 1123 and CHEM 1121L or (CHEM 1123H and CHEM 1121M or CHEM 1223 and CHEM 1221L) and PHYS 2074.

CHEM3512L Physical Chemistry Laboratory (Sp) Basic laboratory practices of molecular mechanics, statistical thermodynamics, chemical kinetics, and the determination of other physicochemical properties of matter. Laboratory 8 hours per week. Pre- or Corequisite: CHEM 3504.

CHEM3513L Chemical Kinetics I (Sp) Chemical thermodynamics, phase equilibria, chemical equilibrium; introduction to the structure and properties of solution, liquid state and solid state; and chemical kinetics. Lecture and recitation 4 hours per week. Prerequisite: CHEM 3504.

CHEM3601L Organic Chemistry I Laboratory (Su, Fa) Laboratory exercises in organic chemistry. Meets 3 hours per week. Corequisite: CHEM 3603.

CHEM3603 Organic Chemistry I (Su, Fa) Lecture 3 hours per week. Primarily for non-majors and with applications to chemistry majors who do not take the CHEM 3703/3702L-3713/3712L sequence. Corequisite: CHEM 3601L and related course component drill section for CHEM 3603. Prerequisite: CHEM 1123 and CHEM 1121L or CHEM 1123H and related course component drill section for CHEM 3603. Pre- or Corequisite: MATH 1074 or higher or satisfactory performance on the mathematics proficiency examination.

CHEM3612M Honors Organic Chemistry II Laboratory (Sp, Su) Corequisite: CHEM 3602 and related course component drill section for CHEM 3612M. Prerequisite: CHEM 1123 and 1121L or CHEM 1123H and related course component drill section for CHEM 3612M.

CHEM3613L Organic Chemistry II (Sp, Su) Lecture 3 hours per week. Primarily for chemistry majors and pre-professional and agriculture students, presented with some recourse to calculus and with applications to life processes and biochemistry. Lecture 3 hours per week. B.A. chemistry majors must enroll in CHEM 3451L concurrently. Prerequisite: CHEM 2262 and CHEM 2272 and PHYS 2033 and PHYS 2033L (or PHYS 2074), and CHEM 3701 and MATH 2343.

CHEM3504 Physical Chemistry (Fa) Introduction to atomic and molecular structure, kinetic theory of gases, and elementary statistical mechanisms. Lecture and recitation 4 hours per week. Pre- or Corequisite: MATH 2564. Prerequisite: CHEM 1123 and CHEM 1121L or (CHEM 1123H and CHEM 1121M or CHEM 1223 and CHEM 1221L) and PHYS 2074.

CHEM3512L Physical Chemistry Laboratory (Sp) Basic laboratory practices of molecular mechanics, statistical thermodynamics, chemical kinetics, and the determination of other physicochemical properties of matter. Laboratory 8 hours per week. Pre- or Corequisite: CHEM 3504.

CHEM3513L Chemical Kinetics I (Sp) Chemical thermodynamics, phase equilibria, chemical equilibrium; introduction to the structure and properties of solution, liquid state and solid state; and chemical kinetics. Lecture and recitation 4 hours per week. Prerequisite: CHEM 3504.

CHEM3601L Organic Chemistry I Laboratory (Su, Fa) Laboratory exercises in organic chemistry. Meets 3 hours per week. Corequisite: CHEM 3603.

CHEM3603 Organic Chemistry I (Su, Fa) Lecture 3 hours per week. Primarily for non-majors and with applications to chemistry majors who do not take the CHEM 3703/3702L-3713/3712L sequence. Corequisite: CHEM 3601L and related course component drill section for CHEM 3603. Prerequisite: CHEM 1123 and CHEM 1121L or CHEM 1123H and related course component drill section for CHEM 3603. Pre- or Corequisite: MATH 1074 or higher or satisfactory performance on the mathematics proficiency examination.

CHEM3612M Honors Organic Chemistry II Laboratory (Sp, Su) Corequisite: CHEM 3602 and related course component drill section for CHEM 3612M. Prerequisite: CHEM 1123 and 1121L or CHEM 1123H and related course component drill section for CHEM 3612M.

CHEM3613L Organic Chemistry II (Sp, Su) Lecture 3 hours per week. Primarily for chemistry majors and pre-professional and agriculture students, presented with some recourse to calculus and with applications to life processes and biochemistry. Lecture 3 hours per week. B.A. chemistry majors must enroll in CHEM 3451L concurrently. Prerequisite: CHEM 2262 and CHEM 2272 and PHYS 2033 and PHYS 2033L (or PHYS 2074), and CHEM 3701 and MATH 2343.

CHEM3504 Physical Chemistry (Fa) Introduction to atomic and molecular structure, kinetic theory of gases, and elementary statistical mechanisms. Lecture and recitation 4 hours per week. Pre- or Corequisite: MATH 2564. Prerequisite: CHEM 1123 and CHEM 1121L or (CHEM 1123H and CHEM 1121M or CHEM 1223 and CHEM 1221L) and PHYS 2074.

CHEM3512L Physical Chemistry Laboratory (Sp) Basic laboratory practices of molecular mechanics, statistical thermodynamics, chemical kinetics, and the determination of other physicochemical properties of matter. Laboratory 8 hours per week. Pre- or Corequisite: CHEM 3504.

CHEM3513L Chemical Kinetics I (Sp) Chemical thermodynamics, phase equilibria, chemical equilibrium; introduction to the structure and properties of solution, liquid state and solid state; and chemical kinetics. Lecture and recitation 4 hours per week. Prerequisite: CHEM 3504.

CHEM3601L Organic Chemistry I Laboratory (Su, Fa) Laboratory exercises in organic chemistry. Meets 3 hours per week. Corequisite: CHEM 3603.

CHEM3603 Organic Chemistry I (Su, Fa) Lecture 3 hours per week. Primarily for non-majors and with applications to chemistry majors who do not take the CHEM 3703/3702L-3713/3712L sequence. Corequisite: CHEM 3601L and related course component drill section for CHEM 3603. Prerequisite: CHEM 1123 and CHEM 1121L or CHEM 1123H and related course component drill section for CHEM 3603. Pre- or Corequisite: MATH 1074 or higher or satisfactory performance on the mathematics proficiency examination.

CHEM3612M Honors Organic Chemistry II Laboratory (Sp, Su) Corequisite: CHEM 3602 and related course component drill section for CHEM 3612M. Prerequisite: CHEM 1123 and 1121L or CHEM 1123H and related course component drill section for CHEM 3612M.

CHEM3613L Organic Chemistry II (Sp, Su) Lecture 3 hours per week. Primarily for chemistry majors and pre-professional and agriculture students, presented with some recourse to calculus and with applications to life processes and biochemistry. Lecture 3 hours per week. B.A. chemistry majors must enroll in CHEM 3451L concurrently. Prerequisite: CHEM 2262 and CHEM 2272 and PHYS 2033 and PHYS 2033L (or PHYS 2074), and CHEM 3701 and MATH 2343.

CHEM3504 Physical Chemistry (Fa) Introduction to atomic and molecular structure, kinetic theory of gases, and elementary statistical mechanisms. Lecture and recitation 4 hours per week. Pre- or Corequisite: MATH 2564. Prerequisite: CHEM 1123 and CHEM 1121L or (CHEM 1123H and CHEM 1121M or CHEM 1223 and CHEM 1221L) and PHYS 2074.

CHEM3512L Physical Chemistry Laboratory (Sp) Basic laboratory practices of molecular mechanics, statistical thermodynamics, chemical kinetics, and the determination of other physicochemical properties of matter. Laboratory 8 hours per week. Pre- or Corequisite: CHEM 3504.

CHEM3513L Chemical Kinetics I (Sp) Chemical thermodynamics, phase equilibria, chemical equilibrium; introduction to the structure and properties of solution, liquid state and solid state; and chemical kinetics. Lecture and recitation 4 hours per week. Prerequisite: CHEM 3504.
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 are emphasized. Course content is derived from text, research, and field experience. Prerequisite: CIED 3003 and 3043. Corequisite: CIED 3043.

CIED3070 Early Adolescent Literature (Sp) A study of rationale and strategies for incorporating early adolescent literature into the middle level curriculum. Emphasis is on the characteristics of the middle level learner. An ten-hour field experience is required. Corequisite: CIED 3073 and honors candidacy. Prerequisite: CIED 3043.

CIED3073 Literacy Strategies for Middle Level Learners (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 and honors candidacy. Prerequisite: CIED 3043.

CIED3073 Honors Early Adolescent Literature (Sp) A study of rationale and strategies for incorporating early adolescent literature into the middle level curriculum. Includes an examination of genres and selected texts from each. Corequisite: CIED 3063. Prerequisite: CIED 3043.

CIED3073 Honors Early Adolescent Literature (Sp) A study of rationale and strategies for incorporating early adolescent literature into the middle level curriculum. Includes an examination of genres and selected texts from each. Corequisite: CIED 3063. Prerequisite: CIED 3043 and honors candidacy.

CIED3073 Honors Early Adolescent Literature (Sp) A survey of children's literature in the elementary curriculum. The course will provide students with an understanding of children from the emergent to developmental stages, materials and effective research-based teaching strategies for classroom practice. Not for USEF credit. Prerequisite: CIED degree program. Concurrent clinical experiences in each area of emphasis are required. Corequisite: CIED 3103.

CIED3103 Children's Literature (Fa) A survey of children's literature, authors, and illustrators with emphasis on the preschool and primary grade literature. Corequisite: CIED 3113. Prerequisite: PSYC 3093 or CIED 3003.

CIED3103 Honors Children's Literature (Fa) A survey of children's literature, authors, and illustrators with emphasis on the preschool and primary grade literature. Corequisite: CIED 3113. Prerequisite: PSYC 3093 or CIED 3003.

CIED3113 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 3093 or CIED 3003.

CIED3113 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 3093 or CIED 3003.

CIED3123 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.

CIED3133 Integrated Social Studies (Sp, Su) Focuses on the methods and materials of teaching social studies in both elementary and secondary schools. Prerequisite: CIED 3002 and CIED 3111; or MUED 2012; or CATE 1901; or AGED 1031.

CIED3133 Classroom Learning Theory (Sp, Su, Fa) A survey of the principles of learning with special emphasis on human learning and implications for education. Prerequisite: CIED 3002 and CIED 3111; or MUED 2012; or PHED 1003; or CATE 1901; or AGED 1031; and PSYC 2003.

CIED3134 Instruction to Middle Level Principles and Methods (Fa) A comprehensive overview of the key components, principles, methodologies, 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 expectations will be a primary means of course evaluation. Prerequisite: CIED 3033.

CIED3135 The Nature 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 students with exceptionalities in both elementary and secondary schools. Prerequisite: CIED 3002 and CIED 3111; or MUED 2012; or CATE 1901; or AGED 1031.

CIED3133 Classroom Learning Theory (Sp, Su, Fa) A survey of the principles of learning with special emphasis on human learning and implications for education. Prerequisite: CIED 3002 and CIED 3111; or MUED 2012; or PHED 1003; or CATE 1901; or AGED 1031; and PSYC 2003.

CIED3137 Instruction to Middle Level Principles and Methods (Fa) A comprehensive overview of the key components, principles, methodologies, 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 expectations will be a primary means of course evaluation. Prerequisite: CIED 3033.

CIED3135 The Nature 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 students with exceptionalities in both elementary and secondary schools. Prerequisite: CIED 3002 and CIED 3111; or MUED 2012; or PHED 1003; or CATE 1901; or AGED 1031; and PSYC 2003.

CIED3134 Instruction to Middle Level Principles and Methods (Fa) A comprehensive overview of the key components, principles, methodologies, 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 expectations will be a primary means of course evaluation. Prerequisite: CIED 3033.
Course Descriptions
CIED5753 Nature and Needs of the Gifted and Talented (Fa) Educational, psychological, and social characteristics of gifted and talented children. Prerequisite: CIED 5803.

CIED5803 Nature and Needs of the Gifted and Talented (Fa) Educational, psychological, and social characteristics of gifted and talented children. Prerequisite: Graduate standing.

CIED5873 Assessment of Exceptional Students (Fa) Examines the various models for assessing educational needs and differentiates students who are gifted, talented, and exceptional. Prerequisite: CIED 5803.

CIED5883 Research in Special Education (Irregular) Review of research in special education including all areas of exceptionalities and special education issues. Prerequisite: Graduate standing.

CIED5973 Practicum in Literacy (Sp, Fa, Fa) Laboratory experience in and exposure to diverse reading difficulties and practice remedial measures under the direct supervision of the instructor. Emphasis is given to continuous diagnosis and to the use of commercially produced materials and trade books in remediation. Emphasis on individual and initial assessment.

CIED6003T Experience of Reading Difficulties (Sp) Focuses on the identification of the causes and remediation of reading disorders. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6023 Organization of Reading Programs (Sp, Su, Fa) Study of the factors of creativity, how they can be applied to the special education classroom. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6043 Analysis of Teacher Education (Irregular) This course examines issues, problems, trends, and research associated with teacher education programs in early childhood, elementary, secondary and special education. Prerequisite: Admission to the Ed.S or Ph.D. program.

CIED6053 Advanced Assessment (Sp) This course provides a survey of assessment methods used to evaluate students’ levels of performance in educational settings. Prerequisites: Admission to Ed.S. or Ph.D. program.

CIED6063 Systemic Change in Education (Sp) This course is designed to critically examine education and society and interplay between them, to differentiate between meaningful and superficial change in education and society. Prerequisite: Admission to Ed.S. or Ph.D. program.

CIED6073 Seminar in Developing Creativity (Irregular) A study of the factors of creativity, how they can be applied to the special education classroom. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6083 Pliaget’s Theory and Instruction (Odd years, Sp) Pliaget’s theory as it relates to the following: observation of the child, the classroom environment, and the effects of Pliaget’s theories on instruction in various settings. Prerequisite: CIED 6023.

CIED6093 Organization of Reading Programs (Sp, Su, Fa) Study of the factors of creativity, how they can be applied to the special education classroom. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6133 Issues, History, and Rationale of Science Education (Irregular) This course is the foundation for the study of issues related to the discipline of science education. It provides an overview of the historical development of science education in the United States. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6203 Advanced Research Methods (Sp) This course is designed to critically examine education and society and interplay between them, to differentiate between meaningful and superficial change in education and society. Prerequisite: Admission to Ed.S. or Ph.D. program.

CIED6203T Experience of Reading Difficulties (Sp) Focuses on the identification of the causes and remediation of reading disorders. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6233 Career Counseling (Sp) Focuses on the identification of the causes and remediation of career counseling. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6243 Advanced Science Teaching Methods (Irregular) This course is designed for those educators who have had some previous instruction in science teaching methods and/or have some prior science teaching experience. Students will gain new or renewed perspectives with respect to their personal teaching ability while engaging in discussions and activities designed to assist others in professional growth. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6303 Classroom Management (Sp) Focuses on the identification of the causes and remediation of classroom management. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6313 Issues, History, and Rationale of Science Education (Irregular) This course is the foundation for the study of issues related to the discipline of science education. It provides an overview of the historical development of science education in the United States. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6333 Nature and Needs of Persons with Serious Emotional Disorders (Irregular) A study of serious emotional disorders, particularly those that have a significant impact on the educational and social functioning of students. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6353 Nature and Needs of Persons with Serious Emotional Disorders (Irregular) A study of serious emotional disorders, particularly those that have a significant impact on the educational and social functioning of students. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6353 Nature and Needs of Persons with Serious Emotional Disorders (Irregular) A study of serious emotional disorders, particularly those that have a significant impact on the educational and social functioning of students. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6393 Practicum in Gifted Education (Irregular) Students will engage in action research in a school setting to advance their knowledge of teaching and learning venues including schools and other educational settings. Prerequisite: Permission of the instructor.

CIED6403 Effective Teaching: Concepts and Processes (Sp, Su, Fa) This course is designed to assist students in examining a variety of effective teaching practices and problems found in classrooms and in acquiring knowledge, concepts, and ideas about ways to effectively influence the learning and development of students. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6413 Special Topics in Special Education (Irregular) A study of special education issues, such as the impact of multicultural education, different views of multicultural education, and the impact of multicultural education upon the school setting. 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 school setting. Emphasis is upon school settings of culturally diverse students, language issues, gender issues, and other issues related to multicultural education. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6423 Special Topics in Special Education (Irregular) A survey of the educational, psychological, and social characteristics of gifted and talented children. Prerequisite: Graduate standing.

CIED6433 Critical Thinking in Writing in Criminal Justice (Sp, Fa) An introduction to methods of critical thinking in criminal justice. Prerequisite: CMJS 2003; open to graduate students.

CIED6453 Legal Aspects of Special Education (Irregular) A study of the legislative and legal aspects of special education, including federal and state laws and court cases, and due process hearings. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6457 Research in Special Education (Irregular) A survey of research in special education including all areas of educational, psychological, and social characteristics of gifted and talented children. Prerequisite: Graduate standing.

CIED6463 Special Topics in Special Education (Irregular) A study of special education issues, such as the impact of multicultural education, different views of multicultural education, and the impact of multicultural education upon the school setting. Emphasis is upon school settings of culturally diverse students, language issues, gender issues, and other issues related to multicultural education. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6466V Workshop (Sp, Su, Fa) This course is designed to assist students in examining a variety of effective teaching practices and problems found in classrooms and in acquiring knowledge, concepts, and ideas about ways to effectively influence the learning and development of students. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6603 Multicultural Education (Sp, 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 school setting. Emphasis is upon school settings of culturally diverse students, language issues, gender issues, and other issues related to multicultural education. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6606V Workshop (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 school setting. Emphasis is upon school settings of culturally diverse students, language issues, gender issues, and other issues related to multicultural education. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6747V Internship (Sp, 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 school setting. Emphasis is upon school settings of culturally diverse students, language issues, gender issues, and other issues related to multicultural education. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6803T Experience of Reading Difficulties (Sp) Focuses on the identification of the causes and remediation of reading disorders. Prerequisite: Admission to the Ed.S. or Ph.D. program.

CIED6823 Instructional Methods for Students with Autism Spectrum Disorders (Sp) This course is designed to assist professionals in planning and implementing instructional and support services for students with autism spectrum disorders. Students will learn how to facilitate in the classroom, school, and community partnerships.

CIED6833 Practicum in Autism Spectrum Disorders (Sp, Fa) Supervised field experiences in special education, schools, and other settings for students with autism spectrum disorders.

CIED6943 Special Topics (Sp, Su, Fa) 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 facilitate in the classroom, school, and community partnerships.

CIED6963 Assessment of Students with Autism Spectrum Disorders (Fa) This course is designed to assist students with autism spectrum disorders. Students will learn how to facilitate in the classroom, school, and community partnerships.

CIED699V Doctoral Seminar (Sp, Su, Fa) 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 facilitate in the classroom, school, and community partnerships.

CLST1003 Introduction to Classical Studies: Greece (Odd years, Fa) An introduction to the world of ancient Greece, from the Trojan War to Alexander the Great. Progresses 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.

CLST1003H Honors Introduction to Classical Studies: Greece (Odd years, Fa) An introduction to the world of ancient Greece, from the Trojan War to Alexander the Great. Progresses 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.

CLST1013H Honors Introduction to Classical Studies: Rome (Even years, Sp) A multi-faceted introduction to Roman culture, focusing on the literature, philosophy, architecture, history, art and archeology. Source material to be read in English. Lectures liberally illustrated with slides. This course fulfills the second semester world literature requirement.

CLST1013 Introduction to Classical Studies: Rome (Even years, Sp) A multi-faceted introduction to Roman culture, focusing on the literature, philosophy, architecture, history, art and archeology. Source material to be read in English. Lectures liberally illustrated with slides. This course fulfills the second semester world literature requirement.

CUMJ2003 Introduction to Criminal Justice (Sp, Fa) Survey of the field of criminal justice, with an emphasis upon law enforcement, the courts, and corrections.

CUMJ2005 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.

CUMJ3003 Criminal Law and Society (Sp, Fa) Principles

Course Descriptions
Introduction of concepts, CNED5303 Individual Appraisal (Fa) of career development and counseling, including the use of occupational information and counseling for non-medical practitioners. Prerequisite: CNED 5003, CNED 5233, CNED 5333.

CMJS5353 Psychopharmacology (Su) Study of the effects of drugs in the treatment of mental disorders. Prerequisite: CNED 5333.

CMJS5363 Dynamics of Group Counseling (Sp, Fa) Therapeutic and experimental information 5303 and CNED 5333.

CMJS5723 Ethical and Legal Issues in Counseling (Fa) (Formerly CNED 5372) Review of ethical and legal standards governing professional counseling training, research, and counseling practice, including client rights; confidentiality; the client-counselor relationship; and counseling research, training, and supervision. Prerequisite: CNED 5103 and CNED 5203.

CMJS5368 Crisis Intervention Counseling (Su) (Formerly CNED 5382) Application and analysis of short-term counseling intervention strategies in crisis situations, with special attention to accidents involving rape, physical, or emotional abuse, divorce, suicidal depression, grief, marital or family instability, and violent conflict. Prerequisite: CNED 5333 (preferred).

CMJS6403 Case Study in Supervision Counseling (Fa) Procedures in case management utilizing both clinical and interview data in assisting children, adolescents, and adults in educational, vocational, personal, and social planning. Prerequisite: CNED 5033 and CNED 5533 and CNED 5533.

CMJS5513 Counseling and Human Diversity (Su) Examination of human and cultural diversity, emphasizing issues of race, class, and socioeconomic status, and how they impact our clients as individuals and as family and society members. Prerequisite: CNED 5053 and CNED 5533 and CNED 5533.

CMJS574V Internship in Criminal Justice (Sp, Fa) (1-6) A 600-hour clock-hour field placement in an approved setting over a minimum of two continuous semesters. Co or Prerequisite CNED 5213.

CMJS5503 Criminal Procedures (Fa) Prerequisite: CMJS 2003. (Same as SOCI 3203)

CMJS5513 Criminal Justice Administration (Sp, Fa) Prerequisite: CMJS 2003. (Same as SOCI 3203)

CMJS6103 Human and Societal Deviance (Sp) Prerequisite: CMJS 2003 or any other agency which is approved by instructor. Prerequisite: CMJS 2003.

CMJS644V Internship in Criminal Justice (Sp, Su, Fa) (1-6) Prerequisite: CMJS 2003 or any other agency which is approved by instructor. Prerequisite: CMJS 2003.

CMJS6711 Advanced Clinical Practicum (Sp) Supervised counseling practice. A 100-clock hour approved practical counseling experience. Prerequisite: CNED 5303 and CNED doctoral standing or permission.

CMJS6711 Advanced Clinical Practicum (Su, Fa) Supervised counseling practice. A 100-clock hour approved practical counseling experience. Prerequisite: CNED 5303 and CNED doctoral standing or permission.

Communication (COMM)

COMM1003 Basic Course in the Arts: Film Lecture (Sp, Su, Fa) Introduction to film as entertainment and art. How to look at film through a study of composition, lighting, editing, sound and acting. Lectures and viewing time.

COMM1003H Honors Basic Course in the Arts: Film Lecture (Sp, Su, Fa) Introduction of film as entertainment and art. How to look at a film through a study of composition, lighting, editing, sound and acting. Lectures and viewing time.

COMM1313 Fundamentals of Communication (Sp, Su, Fa) Interpersonal and public communication with emphasis in developing both listening and speaking skills.

COMM1314H Fundamentals of Communication (Sp, Su, Fa) Interpersonal and public communication with emphasis in developing both listening and speaking skills.

COMM139V Seminar (Sp, Fa) (1-6) Prerequisite: COMM 1313. May be repeated for up to 9 hours of degree credit.


COMM2380 Public Speaking (Sp, Fa) Continuing study of the theory and practice of oral discourse to the needs of listeners. Consideration of the problems of communication in platform presentation. Prerequisite: COMM 1313.

COMM239V Seminar in Communication (Sp, Su, Fa) (1-6) Prerequisite: COMM 2380. May be repeated for up to 18 hours of degree credit.

COMM700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy and consent.

Counselor Education (CNED)

CNED1002 Life Skills Development (Fa) Study and practice of problem solving, decision making, goals and values clarification and other developmental skills affecting personal issues and academic success. Prerequisite: Instructor consent required.

CNED1111 Seminar (Sp, Fa) Single topic seminar focusing on further development of existing theories and practices. Prerequisite: Graduate student status.

CNED4013 Special Topics in Criminal Justice (Sp, Fa) Comprehensive study of varied subjects in contemporary criminal justice. May be repeated for different topics. Prerequisite: CMJS 2003 or any other agency which is approved by instructor. Prerequisite: CMJS 2003.

CMJS2003 Internship in Criminal Justice (Sp, Su, Fa) (1-6) Prerequisite: CMJS 2003 or any other agency which is approved by instructor. Prerequisite: CMJS 2003.

CMJS403V Individual Study in Criminal Justice (Sp, Fa) (1-4) A reading and conference course on special topics in criminal justice.

CMJS4003 Internship in Criminal Justice (Sp, Su) Supervised experience in municipal, county or state criminal justice agency, or any other agency which is approved by instructor. Prerequisite: CMJS 2003.

CMJS399V Honors Course (Sp, Fa) (1-4) May be repeated for up to 12 hours of degree credit.

CMJS403V Individual Study in Criminal Justice (Sp, Fa) (1-4) A reading and conference course on special topics in criminal justice.

CMJS4013 Special Topics in Criminal Justice (Sp, Fa) Comprehensive study of varied subjects in contemporary criminal justice. May be repeated for different topics. Prerequisite: CMJS 2003 or any other agency which is approved by instructor. Prerequisite: CMJS 2003.

CMJS6523 Gender Issues in Counseling and Human Development (Even years, Sp) Study of gender and sex role issues pertinent to the counseling profession, and their effect on the development of the children, adults, and young and older adults. Students utilize Gender Fair Guidelines for counseling as presented by the American Counseling Association. Prerequisite: CMJS 5203 and CNED doctoral standing or permission.

CMJS6711 Advanced Clinical Practicum (Sp) Supervised counseling practice. A 100-clock hour approved practical counseling experience. Prerequisite: CNED 5303 and CNED doctoral standing or permission.

CMJS6700 Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy and consent.
Topics in communication not represented in other lower division courses.

COMM3143 Language and Expressive Culture This course explores the complex interrelationship of language, culture, and social identity. Verbal and nonverbal expression are examined from a variety of anthropological perspectives. Topics include ethnographies of speech, cultural performances, and the expressive aspects of oral expression. (Same as ANTH 3143, ENGL 3143)

COMM3173 Introduction to Linguistics (Irregular) Introduction to theoretical and applied aspects of 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, dialectology, language contact and the culture of society, and the history of linguistic scholarship. Prerequisite: Junior standing. (Same as ANTH 3173, ENGL 3173, WLLC 3173)

COMM3282 Advanced Forensics (Irregular) A continuation of 2382. 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) Procedures used in exchanging information, solving problems, determining policies, and resolving differences in committees and other small groups. Prerequisite: COMM 1313 and Junior standing.

COMM3343 History of Communication (Irregular) Topics in the history of communication and analysis of primary and secondary sources. Discussion of the nature of the communication process as it is reflected in the individual, in interpersonal settings, in relationship to groups, and in media mass communication. Prerequisite: COMM 1313 and Junior standing.

COMM3383Persuasion (Fa) Introduction to theories of persuasion with emphasis on application and effect.

COMM3423 Science Fiction Film (Irregular) This class concentrates on how science fiction in various communication media influence is, and, in turn, influenced by broad features of cultural life. The class considers the impact of science fiction on science, the military, and the public. It explores in detail the ways in which the media influence the beliefs and perceptions of people for good and ill. Prerequisite: Junior standing.

COMM3433 Family Communication (Irregular) Study of the nature, functions, and management of communication patterns in the family. Emphasis is on the application and use of interpersonal communication in relation to everyday family interaction, conflict pattern, authority structure, and decision-making processes within the context of the contemporary family.

COMM3443 Introduction to Rhetorical Theory (Sp, Fa) Interpersonal and rhetorical 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 Culture and Communication Studies. The course will emphasize understanding popular media communication forms and processes. Prerequisite: Junior standing (not restricted to candidacy in communication). This course explores the complex interrelationship of language, culture, and social identity. Verbal and nonverbal expressive culture are examined from a variety of anthropological perspectives. Topics include ethnographies of speech, cultural performances, and the expressive aspects of oral expression. (Same as ANTH 3143, ENGL 3143)

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 audience. Other topics include the ways people construct meaning from messages, their influence on attitudes, media’s role in cultural life, and audiences as critical consumers of media.

COMM3703 Organizational Communication (Sp, Fa) An introduction to the theory, processes, and management of communication in organizations, with opportunities for simulated application.

COMM3883 Rhetoric of Social Movements (Fa) A study of the nature and function of the communication process as it operates in the political environment. (Same as PLSC 4373)

COMM3893 Documentary Film (Fa) A study of the documentary film as a discrete film form and as an important contribution to the international cinematic scene. Prerequisite: Advanced standing.

COMM4793 Directing Forensics (Irregular) Planning, directing, and coaching forensics teams at the high school or college level.

COMM4823 Children and Media (Sp) An in-depth examination of children’s use of media and the effects of media content on child and adult behavior. Topics may include violence and sex in media, commercialism, and new media.

COMM4843 Computer-Mediated Communication (Sp) Provides an in-depth consideration of the nature of computer-mediated communication. Attention will be given to the dynamics of interactive communication in interpersonal, work, educational, and social 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.

COMM4853 Telecommunication Policy (Irregular) Research and study of issues of social, ethical, and technological aspects of telecommunications with attention given to changing programming patterns, world systems of broadcasting, data transmission, emerging technology, international politics, and regulatory policy.

COMM4863 Seminar in Media (Irregular) Research/discussion of contemporary issues in media. Emphasis on the economic and social impact of advertising, news, censorship, programs directed toward children, portrayals of women and minorities, future trends in media technologies, and analysis of the changing media landscape.

COMM4883 Television and American Culture (Fa) Historical and critical study of how television shapes American culture and is shaped by it. Introduces the study of television history, programs and audiences; particularly how race and gender shape content and reception of programming. Prerequisite: COMM 2333.

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 (Fa, Sp) A seminar class focuses upon the development of research proposals and on-going research projects. Graduate students are required to register for this course each semester of residence.

COMM5113 Historical and Legal Methods in Communication (Fa) A consideration of research methods and legal research methods in communication. May be repeated for up to 3 hours of degree credit.

COMM5123 Quantitative Research Methods in Communication (Fa) A study of the assumptions and procedures of social scientific research methods in communication.

COMM5133 Media Processes & Effects (Fa) Introduction to scholarly research and theory in media processes and effects. 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.

COMM5143 Ethnographic Methods in Communication (Fa) A consideration of recent developments in small group research 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 writing skills.

COMM5193 Seminar in Communication (Sp, Su, Fa) Research, discussion, and papers focus on one of a variety of communication topics including symbolic processes in communication, the development of rhetorical, communication theory, the development of contemporary communication, interpersonal communication, organizational communication, and contemporary applications of rhetoric. Maximum credit is 9 semester hours. Prerequisite: Graduate standing.

COMM5323 Seminar in Persuasion (Fa) Focus is on comparing theoretical accounts of persuasion and research evidence concerning the effects of various factors on persuasion.

COMM5333 Communication in Contemporary Society (Irregular) A 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 mutual 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.

COMM5363 Seminar in Small Group Communication (Su) A consideration of recent developments in small group research and theoretical work 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 personal identity. Prerequisite: Junior or senior standing.

COMM5373 Content Analysis (Irregular) Techniques for observing and analyzing the overt communication behavior of selected communicators. Prerequisite: Graduate standing.

COMM5393 Seminar in Communication Research (Irregular) Research seminar focusing on selected topics such as candidate imagery, diffusion of political information, or political symbolism. Prerequisite: Graduate standing. (Same as PLSC 5393)

COMM5393 Seminar in Rhetorical Criticism (Irregular) Systematic study of contemporary perspectives on rhetoric including scholars such as Burke, Richards, Weaver, Grassi, Machute, Derida, and Rorty. Prerequisite: Graduate standing.
COMS 5403 Organizational Communication Theory (Sp)
A seminar on the historical development of theory and research into communication processes occurring within an organizational setting. Lecture, discussion, oral and written reports. Prerequisite: Graduate standing.

COMS 5413 Organizational Communication Research (Su)
A seminar on conducting applied research within an organizational setting. Prerequisite: COMS 5403 and graduate standing.

COMS 5423 Seminar in Mass Media Cognition (Even years, Sp)
Seminar exploring how people learn from written, aural, and visual mass media messages. Topics include attention, memory, comprehension, emotional response, arousal, unconscious processing, picture perception and person perception. Seminar will be concerned with most popular media (e.g., television radio, newspaper, and magazines) as well as several content genres (e.g., entertainment news, advertising).

COMS 5433 Marital Communication (Even years, Sp)
An exploration of the major theories and lines of research that examine marital communication in contemporary American life.

COMS 5443 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.

COMS 5453 Myth and Communication Criticism (Irregular)
Seminar on major theories of mythology, including archetypal and ideological perspectives, and their applications to the criticism of public discourse in the mass media. Practice in written critical analysis. Prerequisite: Graduate standing.

COMS 5503 Communication and Cultural Studies (Fa) Examinations of the role of communication in modern culture. Emphasis on the development and circulation of meanings within society, and special attention is given to the role of popular and mass media in this process. Prerequisite: Graduate standing.

COMS 5553 Family Communication (Even years, Fa)
An exploration of the major theories and lines of research that examine family communication in contemporary American life.

COMS 5569W 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, directors, film composers, the experimental film, criticism, and the film musical. (Same as ENGL 565W)

COMS 5590V Special Problems (Sp, Su, Fa) (1-6) Credit by arrangement. Prerequisite: Graduate standing.

COMS 5613 Interpersonal Communication (Sp, Su, Fa) Internship in applied communication within public and private organizations. Prerequisite: 15 hours graduate level communication in residence.

COMS 5993 Readings In Cultural Studies (Irregular) Classic and current theoretical approaches to cultural studies. Subject matter changes depending on student interest and faculty expertise.

COMS 6800V Master's Thesis (Sp, Fa) (1-6) Prerequisite: Graduate standing.

COMSCE 1103 Explorations in Computing (Fa) An introduction to computers and computer technology through interactive programming. This course will provide students with the opportunity to explore programming and applications such as robotics, Web applications, and multimedia. Students will learn the basics of programming, i.e., loops, conditions, and functions, and learn how about computers work by developing their own multimedia programs, controlling their own robots, and/or creating their own interactive Web pages.

COMSCE 2123 System Synthesis and Modeling (Sp) An introduction 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: COMSCE 1103.

COMSCE 3153 Operating Systems (Sp) An introduction to operating systems including topics in system structures, process management, storage management, files, distributed systems, and case studies. Prerequisite: COMSCE 2123 and 3143.

COMSCE 3943 Union Programming II (Irregular) Structure of UNIX file system, use of exec and fork, interprocess communication and record locking. Prerequisite: COMSCE 3143.

COMSCE 3953 System Synthesis and Modeling (Fa) This course instructs the students in the use of modern software modeling languages and approaches for design automation. This course will teach the students to use the HDLs and modeling languages for representing and implementing digital computer systems. Prerequisite: COMSCE 2124.

COMSCE 3963 Perl Programming (Irregular) In-depth coverage of the methods and techniques of object-oriented design and its applications to database and artificial intelligence. Prerequisite: COMSCE 3943.

COMSCE 3972 UNIX Programming II (Irregular) Structure, implementation, and application of minicomputer systems, microcomputer hardware, microprogramming, minicomputer software technology, and design and evaluation of minicomputer systems. Prerequisite: COMSCE 3943.

COMSCE 4013 Special Topics (Irregular) Consideration of computer science topics not covered in other courses. May be repeated for up to 3 hours of degree credit.

COMSCE 4023H Honors Special Topics (Irregular) Consideration of current computer engineering honors topics not covered in other courses. Prerequisite: COMSCE 3943.

COMSCE 4114H Honors Embedded Systems (Fa) The architecture, software, and hardware of embedded systems. Embedded systems involve a mixture of hardware and software for the control of a system (including electrical, electronic, and electro-chemical devices). They are found in a variety of products including cars, VCRs, HDTVs, cell phones, pacemakers, spacecraft, missile systems, and robots for factory automation. Prerequisite: COMSCE 2124. (Same as ELEG 4893)

COMSCE 4123H Honors Computer Architecture (Sp) The architecture of modern scalar and parallel computing systems. Techniques for dynamic instruction scheduling, branch prediction, instruction level parallelism, shared and distributed memory multiprocessor systems, array processors, and memory hierarchies. Prerequisite: COMSCE 2214. (Same as ELEG 4983)

COMSCE 4253 Concurrent Computing (Irregular) Program concurrent processes; computer interconnection network topologies; loosely coupled and tightly coupled parallel computer architectures; designing algorithms for concurrency; distributed computer architecture. Prerequisite: senior standing in computer science or engineering.

COMSCE 4313 Introduction to Internet and 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 telecommunications and security systems, digital watermarking, Web sensors, internet authoring and programming languages.

COMSCE 4393 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 telecommunications and security systems, digital watermarking, Web sensors, internet authoring and programming languages.

COMSCE 4433 Introduction to Integrated Circuit Design (Irregular) Design and layout of large scale digital integrated circuits using CMOS technology. Topics include MOS devices and basic circuits, integrated circuit layout and fabrication, dynamic logic, circuit design and layout strategies for large scale CMOS circuits, estimation and optimization of logic speed. Prerequisite: ELEG 3903. (Same as ELEG 4233)

COMSCE 4453 CPLD/FPGA-Based System Design (Irregular) Field Programmable Logic Devices (FPGAs/CPLDs) have become extremely popular as basic building block devices 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 utilization of logic options using these devices. Prerequisite: COMSCE 2123. (Same as ELEG 4963)

COMSCE 4533H Honors CPLD/FPGA-Based System Design (Irregular) Field Programmable Logic Devices (FPGAs/CPLDs) have become extremely popular as basic building block devices 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 utilization of logic options using these devices. Prerequisite: COMSCE 2123 and Honors standing.

COMSCE 4563 Computer Systems Modeling (Irregular) Basic concepts of problem analysis, model design, and simulation experiments. A simulation will be introduced and used in this course.

COMSCE 4563 Computer Systems Modeling (Irregular) Basic concepts of problem analysis, model design, and simulation experiments. A simulation will be introduced and used in this course.

COMSCE 4564 Computer Architecture (Irregular) A study of software architecture through the use of 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 architectures. Prerequisite: COMSCE 3313 and 3513.

COMSCE 4565 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 concepts. The final project will require the students to use the techniques learned in the class in an independent study. The projects include and may require the integration of software and human factors and hardware elements and are developed to software engineering methodologies.
CSCE4613 Artificial Intelligence (Irregular) Introduction to intelligent agents, AI languages, search, first order logic, knowledge representation, problem solving, natural language processing, machine vision, machine learning, and robotics. Prerequisite: CSCE 3143.

CSCE4753 Computer Networks (Sp) This course is an introductory course on computer networks. Using the Internet as a vehicle, this course introduces underlying concepts and principles of modern computer networks, with emphasis on protocols, architectures, and implementation issues. Prerequisite: INEG 3313 or STAT 3153.

CSCE4813 Computer Graphics (Irregular) Introduction to the theory and algorithms used in computer graphics systems and applications. Topics include: 2D and 3D geometric models, points, lines, polygons, planes, transformations, translation, 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 these techniques. 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.

CSCE4912H Honors Thesis (Sp, Fa) To provide honors students planning to graduate, elective courses defined in consultation with their peers and faculty. Prerequisite: Honors standing. May be repeated for up to 4 hours of degree credit.

CSCE4914 Advanced Digital Design (Sp) To master advanced logic design structures, design and testing of combinational and sequential circuits using state of the art CAD tools. Prerequisite: CSCE 2114 or ELEG 2904. (Same as ELEG 4914)

CSCE5093 Comprehensive Capstone (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: concepts, formal proposal, implementation, and presentation. The projects include and may require the integration of software and human factor, hardware elements and are developed to software engineering methodologies. Prerequisite: CSCE 4561.

CSCE5003 Advanced Programming Languages (Irregular) Abstract data types, functional languages, concurrent programming, exception handling, dataflow, and object oriented programming, denotational semantics. Prerequisite: Graduate standing.

CSCE5033 Advanced Special Topics in 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 (Irregular) Design of computer programs with primary emphasis on the development of efficient implementation.

CSCE5043 Advanced Artificial Intelligence (Irregular) In-depth introduction to AI. Topics include: philosophical foundations, commonsense reasoning, 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, and natural language understanding, machine vision, and robotics. Prerequisite: Graduate standing.

CSCE5093 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 tolerance is concerned with making or recovering from the effects of faults in a digital system, once they have been detected. On-line fault tolerance is concerned with making or recovering from the effects of faults in a digital system, once they have been detected. Prerequisite: CSCE 5323.

CSCE5033 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 forensics tools, resources for system administrators and information security officers, legal issues related to computer and network forensics. Prerequisite: CSCE 5223.

CSCE5363L Advanced Circuit Design Laboratory II (Irregular) Students test the I.C. chips they designed in I.C. Design Laboratory I, and propose design corrections where needed. Topics include bipolar chip design, gate arrays, BICMOS, memory design, design for testability, and dynamic & domino logic. Prerequisite: CSCE 5253.

CSCE5513 Telecommunications (Irregular) Overview of public and private telecommunication systems, traffic engineering, communications systems basics, information technology, electromagnetics, and data communication. (Same as ELEG 5561)


CSCE5643 Computer Communications Networks (Irregular) A study of computer communication networks, including the data link layer, local area networks, TCP/IP, ATM, B-SDN, queueing analysis, and recent developments in computer communications.

CSCE5653 Network Security (Irregular) This course introduces security and secrecy in a networked environment. It is intended to familiarize students with the elements of secure communication, and how they inter-relate to provide secure networks in public and private settings.

CSCE5663 Digital Image Processing (Irregular) Introduction to digital image processing with an emphasis on practical implementation techniques. Topics include: image acquisition and sampling, image enhancement, noise removal, image restoration, feature detection and image recognition. Image processing applications may include: point operations, geometric transformations, linear image processing in the spatial and frequency domains, and non-linear image processing techniques. Basic techniques of linear system theory such as convolution and Fourier transforms will be introduced as necessary to support these topics.

CSCE5723 Client-Server Computing (Irregular) Advanced Object Oriented methods for designing software systems for network applications. Topics include implementations of distributed object models, remote database connectivity, Server side programming, and reusable components. Prerequisite: CSCE 5743 and graduate standing.

CSCE581V Master’s Project (Sp, Su, Fa) (1-6) Required course for report 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) Examination of fundamental principles of algorithms for performing arithmetic operations in computers. This course provides sufficient examination of fundamental principles of algorithms for performing arithmetic operations in computers. This course provides sufficient examination of fundamental principles of algorithms for performing arithmetic operations in computers. Prerequisite: CSCE 5983.

CSCE6093 Advanced 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 design. Prerequisite: CSCE 4213 or ELEG 4943.

CSCE610V Master’s Thesis (Sp, Fa) (1-6) Prerequisite: CSCE 6280.

CSCE6280 Post-Master’s Research (Sp, Fa) (1-18) May be repeated for up to 5 hours of degree credit.

Crop, Soil & Environmental Sci (CSES)

CSCE1011 Introduction to Crop, Soil, and Environmental Science (Fa) An introduction to the CSES department and majors in Environmental Soil and Water Sciences and Crop Management. Emphasis will be placed on issues and opportunities within these disciplines and orienting students to the state and University of Arkansas. Required of all department majors with less than 24 semester credit hours. Recitation 1 hour 20 minutes per week for the first eight weeks of the semester. Prerequisite: Freshman and sophomore standing only.

CSCE1203 Introduction to Plant Sciences (Sp, Fa) An introduction to basics of agricultural crop plant structure, growth, and production.

CSCE2203 Introduction to Weed Science (Fa, Sp) An introduction to weed science with emphasis on basic crop weeds and pest control.

CSCE2303 Advanced Digital Design (Sp) A study of current computer engineering topics with emphasis on practical concepts of weed control and weed biology; equipment and techniques used in modern weed control practices; and basic recommendations and systems for specific agronomic and horticultural crops. Lecture 2 hours per week. Corequisite: Lab component. Prerequisite: CSCE 2103 or CSCE 2103 or HORT 2003.

CSCE2012 Introduction to Organic Crop Production (Sp) An introduction to the principles of organic agriculture and ecology and regulations defining organic agriculture and regulations defining organic agriculture and regulations defining organic agriculture.

CSCE2031 Organic Crop Production (Sp) A study of current crop production topics with emphasis on production of organic crops. Additional topics include crop rotations for pest management and for increasing soil organic matter, feeding the soil and plant nutrition, soil health, and green manuring, corporate agriculture and genetically modified organisms.

CSCE2013 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.

CSCE2101L Crop Science Laboratory (Sp) A series of laboratory experiments designed to reinforce principles of crop 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. Corequisite: CSCE 2103.

CSCE2103 Crop Science (Principles) of crop growth, development, and utilization and how these principles relate to production. Emphasis on major agronomic crop species. Lecture 3 hours per week.

CSCE2203L Soil Science Laboratory (Fa) Field and laboratory exercises related to the study of the physical, chemical, and biological properties of soils. Laboratory mandatory for all crop management and environmental, soil, and water science majors and optional for others. Laboratory 2 hours per week. Prerequisite: CSCE 2203.

CSCE2203 Soil Science (Fa) 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.

CSCE3023 Crop, Soil, and Environmental Sciences Colloquium (Fa) A communication-intensive course covering topics in agricultural, environmental, soil, and water science disciplines and orienting students to the department and University of Arkansas. Recitation 2 hours per week. Corequisite: Lab component. Prerequisite: CSCE 2103 or CSCE 2103 or HORT 1203.

CSCE3214 Soil Resources and Nutrient Cycles (Odd years, Spring) Integration of the fundamental concepts of the biological, chemical, and physical properties of soil systems and their roles in managing soil resources. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: CSCE 2203.

CSCE3312 Cotton Production (Even years, Fall) Principles and techniques associated with production of cotton. Recitation 2 hours per week. Prerequisite: CSCE 3312 or CSCE 2103 or HORT 1203.

CSCE3332 Soybean Production (Odd years, Spring) An overview of the history and utilization of soybean as well as the physiological and environmental basis for the development of economic soybean production practices. Recitation 2 hours per week. Prerequisite: CSCE 3312 or CSCE 2103.

CSCE3332 Rice Production (Odd years, Fall) A study of the principles and practices involved in rice culture worldwide with major emphasis on the United States. Recitation 2 hours per week.

Crop, Soil & Environmental Sci (CSES)
CSES202V Special Problems Research (Sp, Su, Fa) (1-6) Original investigations on assigned problems in agronomy. Prerequ-
site: Graduate standing.

CSES303 Advanced Soil Fertility and Plant Nutrition (Even years, Fa) Study of water uptake, ion absorption, transloca-
tion and metabolism in higher plants. Lecture 3 hours per week. Prerequisite: BIOL 2313 and CHEM 211L.

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, tests, proposals, journal articles, and other scientific documents. Emphasis on style 
and techniques used in scientific publications. Lecture and workshop 3 hours per week. Prerequisite: Graduate standing.

CSES103 Scientific Presentations (Sp) Experience in pro-
cedures required for professional presentations of scientific papers, seminars, posters, and research findings at national conferences 
and with discussion groups. Instruction in organization of materials, visual aids, and good speaking habits. Lecture 3 hours per week. 
Prerequisite: Graduate standing.

CSES124 Crop Molecular and Phytochemical Genetics (Even years, Sp) Study of genome organization and expression in 
agricultural and horticultural plants, with emphasis on genes regulating 
physiological processes. Lecture 3 hours, discussion 1 hour per week. CSES 5843 are recommended but not required. Corequisite: Lab component.

CSES2013 Weed Identification, Morphology, and Ecology (Fa) Study of weeds as economic pests occurring in both agricul-
tural and nonagricultural situations and including poisonous plants and other specific weed problems. Gross morphological family characteristics which aid identification, habitat of growth and distri-
bution, ecology, competition, and allelopathy are discussed. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CSES 2103 (or HORT 2003).

CSES4113 Principles of Weed Control (Sp) Advanced concepts and technology used in modern weed control practices 
and study of the chemistry and specific activity of herbicides in current usage. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CHEM 2613 and CHEM 2611L and CHEM 2003.

CSES4103 Soil Fertility (Fa) Study of the soil’s chemical, 
biological and physical properties, and human modification of these 
properties, as they influence the uptake and utilization of the essential 
nutrients by plants. Lecture 3 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CSES 2001, and CSES 2003.

CSES4243 Plant Anatomy (Sp) Advanced training in plant 
anatomy. Studying the structure, terminology, techniques and function 
associated with vascular plant anatomy. Corequisite: Lab component. Prerequisite: BIOL 1612/1611 or BIOL 1543/1541L.

CSES4253 Soil Classification and Genesis (Sp) Lecture and field evaluation of soil properties and their relation to soil genesis 
and soil-plant relationships in the soils of Arkansas. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: CSES 2203.

CSES426V Internship (Sp, Su, Fa) (1-6) Supervised practical work experience in 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 8 hours of degree credit.

CSES4803 Precision Agriculture (Odd years, Fa) Introduction 
to precision agriculture, benefits, spatial variability within a field, 
zone concept, site-specific management. Spatial data collection: sen-
sors, GPS, yield monitoring, remote sensing. Knowledge discovery from 
data: data processing, neural networks, genetic algorithms, use of GIS. Decision support systems. Variable-rate technology: real-time 
and map-based systems, variable-rate machinery, and smart con-

CSES5001 Weed Science Practicum (Su) Training for membership on weed team, through participation. Prerequisite: Graduate standing.

CSES5103 Crop Physiology (Odd years, Fa) Understanding and quantitative measurement of physiological processes, plant re-
sponses, and environmental parameters in relation to the production of crops and weeds.

CSES5023 Weed Physiology and Herbicide Resistance in 
Plants (Odd years, Fa) The reproduction, growth, and develop-
ment of weeds and the ecological factors affecting these processes; 
devolution and development of herbicide resistance. Herbicide-resistance genes; and development of herbicide-resistant crops. Corequisite: Lab component. Prerequisite: CSES 4143 and (BIOL 4304 or CHEM 5813).

CSEG2001L Surveying Systems Laboratory (Sp, Fa) Laboratory exercises demonstrating the principles and practices of 
Civil Engineering (CSEG)

CSEG2003 Surveying Systems (Sp, Fa) Coordinate, measur-
ing, design, and installing total integrated surveying systems, data 
collection, and reduction; error analysis; applications to civil 
engineering and surveying practice. Corequisite: CSEG 2051L.

CSEG2013 Soil Structural Materials (Sp, Fa) Production, proper-
ties, behavior, and structural applications of concrete, steel, timber, 
masonry, and plastic. Statistical analysis methods for quality control 
are also covered. Lecture 2 hours, laboratory 3 hours per week. Pre-
or Corequisite: CSEG 2013. Corequisite: Lab component.

CSEG2022 Public Works Economics (Sp) Continues the 
concepts of design and the engineering approach to the solution of 
problems. The principles and applications of engineering economics 
are introduced. Creation, analysis, and evaluation. Reitation 2 hours per week. Prerequisite: Junor standing.

CSEG2114 Soil Mechanics (Sp, Fa) Introduction to geotechni-
cal engineering. Properties of soils related to foundations, retaining 
walls, earth structures, and highways. Lecture 2 hours, laboratory 
3 hours per week. Pre- or Corequisite: CSEG 3213 and MATH 3404. 
Corequisite: Lab component. Prerequisite: MEEG 303.

CSEG2213 Hydraulics (Sp, Fa) Study of incompressible fluids. 
Topics include fluid properties, fluid statics, continuity, energy 
and hydraulic gradients, fundamentals of flow in pipes and open 
channels. Hardy Cross analyses, measurement of flow of incompressible 
fluids, hydraulic simulation and dimensional analysis. Lecture 2 hours, 
laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: MEEG 2003.

CSEG2223 Hydrology (Sp) Use of ground water and surface 
water. Flood routing procedures in storage reservoirs and channels. 
Hydrologic planning including storage, flood behavior design, frequency 
duration analysis, and related techniques. Prerequisite: CSEG 2053 or 
BENG 2612; and CVEG 3213 or MEEG 3503.

CSEG2343 Environmental Engineering (Sp, Fa) Introduction 
to theories of fundamentals of physical, chemical and biological 
processes with emphasis on water supply and wastewater collection, 
transportation, and treatment. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: MATH 3404 and 
CHEM 1133.

CSEG3034 Structural Analysis (Sp) Truss analysis, 
influence lines for beams and frames, and effects of moving loads. 
Deformation of beams, frames, and trusses. Analysis of interde-
pendent structures by moment area, virtual work, and others. 
Design process of infrastructures using 3 Dimensional 
computer-aided design program. Special topics include seepage, slope stabilization, 
traffic, capacity, traffic operations, and environmental effects for 
highway engineering. Prerequisite: CSEG 2053.

CSEG4003 CAD & Visualization for Civil Structures (Irregular) Design of infrastructure using computer-aided design (CAD) and 
3D modeling software (AutoCAD) and advanced software (Lumen 
3D Computer Aid Design and Engineering visualization with a 
highway design emphasis. Students produce a digital video for a 
designed civil structure as a class project. Develop skills in photo 
mapping for placement of designed structures in real environment. 
Senior standing.

CSEG4053 Land Surveying (Irregular) Historical background of 
property surveys. Detailed consideration of original surveys and 
the United States Public Land Surveys. Writing adequate 
land descriptions. Interpretation of old descriptions. Excesses 
and deficiency. Riparian rights. Field practice in relocation of old 
boundaries. Prerequisites: Senior standing and CSEG 2053.

CSEG4083 Control Surveys (Irregular) Sun and Polars 
observer data observations for astronomical azimuth, solar access 
studies; control traversing, leveling, triangulation; state plane coordinate systems. 
Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab 
component. Prerequisite: CSEG 2053 and CSEG 2051.

CSEG4143 Foundation Engineering (Sp, Fa) Analysis and 
design of retaining walls, footings, sheet piles, and piles. Determina-
tion of foundation settlements in sand and clay. Prerequisite: 
CSEG 3113.

CSEG4153 Earth Structures (Irregular) The use of soil as a 
construction material including compaction, cement, lime, and fly 
asphalts, stabilization. Special topics include seepage, slope stability, 
sand, and collapsible soils. Prerequisite: CSEG 3113.

CSEG4243 Environmental Engineering Design (Sp, Fa) Application of physical, biological, and chemical operations and 
processes to the design of water supply and wastewater treatment systems. 
Prerequisite: CSEG 2423.

CSEG4263 Environmental Regulations and Permits (Fa) Topics include federal and state environmental regulations, the
CCEG4983H Honors Undergraduate Thesis (Irregular) Thesis research for civil engineering students enrolled in the honors college. Prerequisite: Honors College.

CVEG5153 Mold Testing for Producers (Irregular) This course covers properties of stress waves in elastic and inelastic materials, dynamic loading of soils, and stiffness and damping properties of soils. Use of field and laboratory techniques to determine shear wave velocity of soils. An understanding of soil properties in site stiff characterization, geotechnical earthquake engineering, evaluation of ground improvement, and design of machine foundations. Prerequisite: CVEG 4143.

CVEG5156  Seepage and Consolidation (Irregular) Study of basic principles involved in measuring properties of soils. Detailed analysis of standard and specialized soil testing procedures and equipment. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: CVEG 4143.

CVEG5154 Transportation Soils 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 and field control; soil stabilization; soil trafficability and subgrade stability for transportation facilities. Prerequisite: CVEG 4313.

CVEG5163 Seepage and Consolidation (Irregular) Investigation of the flow of water and contaminants through saturated and unsaturated soils. Characterization of the hydraulic conductivity of soils in the field, seepage through earth dams, excavation cut-offs, and well seepage control systems. Analytical and experimental investigations of soil volume change under hydrostatic and mechanical loading. Design of earth and rock dams, well pumping, and vertical and radial consolidation in embankments. Prerequisite: CVEG 4143.

CVEG5173 Advanced Foundations (Irregular) Study of soils-supported structures. Topics include drilled piers, slope stability, pile groups, negative skin friction, foundation design from the standard penetration test and Dutch cone, and other specialized foundation design topics. Prerequisite: CVEG 4143.

CVEG5183 Geo-Environmental Engineering (Irregular) Study of the geotechnical aspects of waste containment systems and remediating remediation applications. Analysis and measurement of flowing water and contaminants through saturated and unsaturated soils, clay mineralogy and soil-chemical compatibility, and mechanical and hydraulic behavior of geomembranes, geotextiles, and geosynthetic clay liners. Design and construction aspects of compacted clay and composite landfill liners, drainage systems, and landfill covers. Prerequisite: CVEG 3133.

CVEG5193 Geotechnical Earthquake Engineering (Irregular) This course covers stress wave propagation in soil and rock, influence 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.

CVEG5243 Groundwater Hydrology (Irregular) Detailed analysis of groundwater movement, well hydraulics, groundwater water and artificial recharge. Surface and subsurface investigations of various modes of transportation. Safety and congestion problems in transportation systems, and to integrate land layout with transportation network, and to integrate land layout with transportation network. Prerequisite: Graduate standing.


CVEG5413 Transportation and Land Development (Irregular) Study of interaction between land development and the transportation network. Application of planning, design, and operations techniques to manage transportation systems. Topics include transportation system, and to integrate land layout with transportation network. Prerequisite: Graduate standing.


CVEG5433 Traffic 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 characteristics, geometric design, and societal concerns. Also includes methods to collect, analyze, and use traffic data. Prerequisites: 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 include model results with actual measured traffic attributes, using existing data sources and/or collecting and analyzing field date. Prerequisite: Graduate standing.

CVEG5473 Transportation System Characteristics (Irregular) An introduction to traffic flow theory, including traffic stream interactions and capacity. Applications for planning, design, operations. Prerequisites: CVEG 3413 and graduate standing. (Irregular) Transportation and Land Development (Irregular) The study of interaction between land development and the transportation network. Application of planning, design, and operations techniques to manage transportation systems. Topics include transportation system, and to integrate land layout with transportation network. Prerequisite: Graduate standing.

CVEG5483 Transportation Management Systems (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 characteristics, geometric design, and societal concerns. Also includes methods to collect, analyze, and use traffic data. Prerequisites: CVEG 3413 or graduate standing.
Course Descriptions

DANC1003H Honors Basic Course in the Arts: Movement and Dance (Sp, Su, Fa) Introduction to the nature and scope of ballet, modern dance and dance forms, their potential for contributing towards multicultural literacy, and to 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) Introduc- tion to basic techniques with an emphasis on acquiring flexibility, strength, and coordination.

DANC1922 Beginning Modern Dance II (Sp, Fa) A con- tinuation of basic modern dance techniques from DANC 1912, with emphasis on weight, time, and shape in movement. Prerequisite: DANC 1912.

DANC1932 Beginning Ballet (Sp, Fa) Introduction to the basic techniques of ballet in the recognized classic form including barre exercises, port de bras, and center practice.

DANC1422 Beginning Ballet II (Sp, Fa) A continuation of the basic techniques 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: playwrighting, 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.

DRAM1003H Honors Basic Course in the Arts: Theatre Lecture (Sp, Su, Fa) As above, with prerequisites for honors standing.

DRAM1223 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) Practical application of costume technology and makeup skills. Students will participate in projects involving the construction and preparation of costumes and makeup designs associated with departmental productions. Production running crew 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: Scenery and Lighting (Sp) Practical 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 running crew positions will also be assigned. Corequisite: DRAM 1323.

DRAM1323 Stage Technology II: Scenery and Light- ing (Sp) Fundamentals of scenery and lighting technology with emphasis on theatre tools, equipment, and basic drafting. Training in basic principles and skills of stage carpentry, lighting technology and rigging. Corequisite: DRAM 1321L.

DRAM1683 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 (Fa) Funda- mentals of design for the theatre including costume, lighting, and scenery. Study of the designer's role in the production process, de- sign rendering and the uses of software in design. Emphasis on the basic principles of two-dimensional art and graphic forms through various media, and a study of color and color theory as they apply to the major areas of theatrical design. Prerequisite: DRAM 1223 and DRAM 1321L.

DRAM2683 Acting II (Sp) Formerly DRAM 4203. Advanced theories and techniques of acting. Prerequisite: DRAM 1223 and DRAM 1683.

DRAM3001 Production Practicum (Sp, Su, Fa) Credit for participation in technical assignments on mainstage and faculty-directed productions: one (1) credit per hour production. As- signments shall be determined by the faculty. Credit will be awarded only after completion of assignments and only with faculty approval. 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 hour per pro- duction. 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 costume design. Emphasis on the expression of character, style, and research skills. Prerequisite: DRAM 1313, DRAM 1311L, and DRAM 2131.

DRAM3243 Costume Technology I (Odd years, Sp) Advanced methods of costume making 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 scripting and delivery. Prerequisite: DRAM 1313.

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 1313, DRAM 1323 and DRAM 2683.

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 are addressed as they relate to play production activities. Prerequisite: DRAM 1223, DRAM 1313 and DRAM 1223.

DRAM3733 Stage Lighting I (Even years, Fa) Study of the art and practice of stage lighting. For graduate students studying the practical aspects of design. Prerequisite: DRAM 1313.

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 stage. Corequisites: DRAM 1311, DRAM 1323 and DRAM 2683.

DRAM4001V Playwriting (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.

DRAM4153 Musical Theatre Performance (Sp, Su, Fa) Principles and techniques of performing a singing role for the theatre. Examination of the relationship between score and text. Corequisites: DRAM 1313, DRAM 1323.

DRAM4203V Musical Theatre Directing (Sp, Su, Fa) A study of dramatic literature, theatre practices and cultural contexts for dramatic presentation. Prerequisite: DRAM 1223.

DRAM4332 History of the Theatre II (Fa) 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.

DRAM4453 History of the Theatre III (Sp) An examination of history and theory of modern theatrical style.

DRAM490V Independent Study (Sp, Su, Fa) (1-3) Individu- ally designed and conducted programs of reading and research under the guidance of a faculty member. May be repeated for up to 3 hours of degree credit.

DRAM491V Special Topics (Sp, Su, Fa) (1-3) Classes not listed in the regular curriculum, offered on demand on the basis of student needs and changes within the curriculum.

DRAM492V Internship (Irregular) (1-12) Supervised practice in the various arts and crafts of the theatre (e.g., full design responsibility for a box office management, actor/apprentice in a professional company). Available only when the regular curricular possibilities in the area of specialization. May be repeated for up to 12 hours of degree credit.

DRAM4953 Theatre Study in Britain (Sp, Su, Fa) Study of the components of stage production through attending 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 artists.

DRAM5132 Theatrical Design and Rendering Techniques (Sp, Su, Fa) Investigation of drawing and painting methods and materials useful to theatrical designers. Integration of graphic communication with overall production conceptualization will be explored through examination of various theatre styles and periods.

DRAM5143 History of Decor for the Stage (Even years, Sp) An overview of architectural decoration and its application to theatrical design from the Pre-Dynastic Period (4000-3000 B.C.) through the Art Deco period with references to contemporary decor. Prerequisite: Graduate standing.

DRAM5163 Theatre Graphics and Technology (Irregular) Advanced study of theatre drafting, drawing and rendering tech- niques and model making. Graduate standing required.

DRAM5183 Scene 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 sketch, presentation, and the application of this process to the design of non-theatrical productions. May be repeated for up to 6 hours of degree credit.

DRAM5193 Scene Technology Studio (Sp) The student should be familiar with the major theatre history from 1950 to the present through the study of major theatre events and productions. An overview of architectural decoration and its application to theatrical design from the Pre-Dynastic Period (4000-3000 B.C.) through the Art Deco period with references to contemporary decor. Prerequisite: Graduate standing.

DRAM5283 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 sketch, presentation, and the application of this process to the design of non-theatrical productions. May be repeated for up to 6 hours of degree credit.

DRAM5803 Design and Research (Irregular) (1-18) Laboratory treatability studies will be used to determine nitrogen, and phosphorus. Laboratory treatability studies will be used to determine nitrogen, phosphorus, and nitrogen. Laboratory treatability studies will be used to determine nitrogen, phosphorus, and nitrogen. Laboratory treatability studies will be used to determine nitrogen, phosphorus, and nitrogen. Laboratory treatability studies will be used to determine nitrogen, phosphorus, and nitrogen. Laboratory treatability studies will be used to determine nitrogen, phosphorus, and nitrogen.
Microeconomics, including market structures, supply and demand, production costs, price and output, and international economics. Prerequisite: (MATH ACT of 25 or higher) or (MATH SAT of 580 or higher).

ECON2023H Honors Principles of Microeconomics (Sp, Su) Microeconomic analysis, including market structures, supply and demand, production costs, price and output, and international economics. Prerequisite: (MATH 1203 or higher) or (MATH ACT of 25 or higher) or (MATH SAT of 580 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.

ECON3333 Microeconomic Theory (Sp, Su, Fa) Nature, scope, and purpose of economic analysis; theories of demand, production, cost, firm behavior, allocation of resources, etc., in a market-oriented system. Prerequisite: (ECON 2023 and ECON 2032) or (ECON 2143) and (MATH 2435 or MATH 2554).

ECON3053 Economics for Elementary Teachers (Fa) For students who plan to become teachers 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: Students must have completed at least 60 hours of coursework.

ECON3313 Macroeconomic Theory (Sp, Fa) Theoretical development, problems, and policies of national economic systems. Aggregate demand, supply, the determination of interest rates, inflation, investment, price level, etc. Prerequisite: (ECON 2013 and ECON 2023) or (ECON 2143) and (MATH 2435 or MATH 2554).

ECON3163 Economics of Electronic Commerce (Irregular) Analysis and applications of electronic commerce as a technical, business, and social phenomenon. Introduction to e-commerce and its effect on personal and commercial organizational behavior, 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 issues of pricing strategy, network effects, information goods, market mechanisms and verifiability. Prerequisite: ECON 2023 or ECON 2143.

ECON3333 Public Economics (Irregular) Governmental functions, revenues, tax collection, public expenditures, their effects; and fiscal policy. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3353 Law and Economics (Irregular) The use of economic tools to analyze public policy issues, in particular, the effects of laws and regulations on the citizens. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3353 Labor Economics (Irregular) Analysis of labor markets. Topics include analysis of labor demand and supply; human capital investment; wage differentials; discrimination; economic growth; labor mobility; labor market conditions; labor market policies; labor unions; unemployment; and labor market effects on inflation. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3633 Economics of Advertising (Irregular) An introduction to the economic and legal aspects of advertising and promotion. Students will examine the role that advertising plays in today's marketplace and explore the intersections between the 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.

ECON3433 Money and Banking (Sp, Fa) Financial history; theory and practice of financial institutions; monetary policy in theory and practice. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3533 Labor Economics (Irregular) An analysis of labor and union activities. Students will learn to read and interpret government reports, collective bargaining, their effects; and fiscal policy. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3343 Money and Banking (Sp, Fa) Financial history; theory and practice of financial institutions; monetary policy in theory and practice. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3533 Labor Economics (Irregular) Analysis of labor markets. Topics include analysis of labor demand and supply; human capital investment; wage differentials; discrimination; economic growth; labor mobility; labor market conditions; labor market policies; labor unions; unemployment; and labor market effects on inflation. Prerequisite: (ECON 2013 and ECON 2023) or ECON 2143.

ECON3633 Economics of Advertising (Irregular) An introduction to the economic and legal aspects of advertising and promotion. Students will examine the role that advertising plays in today's marketplace and explore the intersections between the 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.


ECON3953 Emerging Markets (Fa) An analysis of the business and economic environment in emerging countries; focusing in 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 2143; (ECON 2013 and ECON 2023) or ECON 2143.

ECON3933 The Japanese Economic System (Sp) This course presents essential facts about the Japanese economy and then subject them to modern economic analyses. Japanese institutions and economic explanations are contrasted with their American counterparts. The results of these comparisons are expressed in terms of performance. Current issues including contemporary economic conditions and US - Japanese
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Trade relations are also examined. Prerequisite: ECON 203. Pre-requisite: ECON 203 or ECON 2143.

ECON2303 Economics of Supply Chain & Retail (Sp) This course will provide students with a strong foundation in core econom- ic principles, with emphasis on the international organization issues. Prerequisites: ECON 203 or ECON 2143. May be repeated for up to 6 hours of degree credit.

ECON2403 Honors Economics Colloquium (Irregular) Exploring economic issues and developments in the field of Economics. Prerequisite: Senior standing.

ECON2503 History of Economic Thought (Sp) Historical, critical analysis of economic theories relative to their instructional background. Prerequisite: (ECON 203 and ECON 2023) or ECON 2143 or ECON 3053.

ECON210V Special Topics in Economics (Irregular) (1-6) Covers special topics in economics not available in other courses. Prerequisite: ECON 203 or ECON 2143. May be repeated for up to 6 hours of degree credit.

ECON210VH Honors Special Topics in Economics (Irregular) (1-6) Covers special topics in economics not available in other courses. Prerequisite: ECON 203 or ECON 2143. May be repeated for up to 6 hours of degree credit.

ECON2413 Information Economics (Irregular) A combination of concepts from microeconomics, industrial organization, and probability to examine how economic actors use information in decision-making. The course combines theoretical models and case studies to develop an understanding of risk, uncertainty, insurance, and ambiguity. Prerequisite: ECON 203 or ECON 2143.

ECON2423 Behavioral Economics (Fa) Both economics and psychology examine human judgment, behavior, and well-being. This course surveys attempts to incorporate psychology into economics to better understand how people make decisions in economic situations. The course will cover models of choice under uncertainty, choice over time, as well as procedural theories of decision making. Prerequisite: ECON 203 or ECON 2143.

ECON2443 Experimental Economics (Sp) The course offers an introduction to the field of experimental economics. Included are the methodologies of laboratory economics, with developing, controlling, and analyzing controlled laboratory experiments. Standard behavioral results are examined and the implications of such behavior for business and economic theory are explored. Prerequisite: ECON 203 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.

ECON450VH Independent Study (Sp, Fa, F) Problems of the international economy from a microeconomic 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 balance surplus and current deficits. Prerequisite: (ECON 203 or ECON 2023) or ECON 2143.

ECON4643 International Macroeconomics and Finance (Sp, Fa) Problems of the international economy from a macroeco- nomic perspective. The course will include national income accounting, the balance of payments; exchange rates and the foreign exchange markets; exchange rate policy; macroeconomic policy coordination; developing countries and the problem of 3rd world debt; and the global capital market. Prerequisite: (ECON 203 or ECON 2023) or ECON 2143.

ECON468V International Economics and Business Seminar (Irregular) (1-4) Offered primarily in conjunction with international study abroad programs with an emphasis on international economics and business. Prerequisite: (ECON 203 or ECON 2023) or ECON 2143. May be repeated for up to 6 hours of degree credit.

ECON4743 Introduction to Econometrics (Sp) Introduction to the application of statistical methods to problems in economics. Prerequisite: (ECON 203 or ECON 2023) or ECON 2143) and (MATH 2053 or MATH 2053C and MATH 2043) or (MATH 2554 or higher) and (WCOB 1033 or STAT 2303).

ECON6733 Managerial Analysis (Fa) This course will develop mathematical and statistical skills for framing economic and related fields. Topics include calculus, static optimization, real analysis, linear algebra, convex analysis, and dynamic optimization. Prerequisite: Graduate standing and MATH 2554 or equivalent.

ECON6833 Economics of Supply Chain & Retail (Sp) This course will provide students with a strong foundation in core economic principles, with emphasis on the international organization issues and applications geared toward the supply-chain and retail focus of the redesigning and reengineering of the supply chains. Prerequisite: Graduate standing and MATH 2554 or equivalent.

ECON6833 Econometrics III (Sp) Theoretical development of macroeconomic models that include and explain the natural rate of unemployment hypothesis and rational expectations, consumer behavior, demand for money, market clearing models, investment, and fiscal policy.

ECON6833 Microeconomic Theory I (Fa) The introductory microeconomic theory at the graduate level. Mathematical formulation of the core concepts of microeconomics. Variations of consumer behavior problems at the level of introductory calculus. Discussion of monopoly, oligopoly, public goods, and externalities.

ECON8161 Econometrics I (Fa) Use of economic theory and statistical methods to estimate economic models. The single equation model is examined emphasizing multicollinearity, autocorrelation, heteroskedasticity, binary variables and distributed lags. Prerequisite: MATH 2043 and knowledge of matrix methods, which may be acquired concurrently. Prerequisite: ECON 203 or ECON 2143. An introductory statistics course. (Same as GEC 5616)

ECON8583 International Economics Policy (Irregular) An intensive analysis of the operation of the international economy with emphasis on issues of current policy interest. Prerequisite: ECON 5163.

ECON600V Master's Thesis (Sp, Su, Fa) (1-6)

ECON6233 Microeconomic Theory II (Sp) Advanced treat- ment of the major economic issues using basic real analysis. Formal discussion of duality, general equilibrium, welfare economics, choice under uncertainty, and game theory.

ECON6243 Microeconomic Theory II (Sp) Further develop- ment of macroeconomic models to include uncertainty and asset pricing theory. Application of macroeconomic models to explain real world situations.

ECON6253 Microeconomics II (Fa) This course will develop advanced concepts in information economics and game theory which will then be applied to the design of contracts, insurance, bargaining and auctions. Prerequisite: ECON 5533 and ECON 6233.

ECON36V Special Problems in Economics (Sp, Su, Fa) (1-6) Independent reading and investigation in economics. May be repeated for up to 6 hours of degree credit.

ECON643V Seminar in Economic Theory and Research I (Fa) (1-3)

ECON644V Seminar in Economic Theory and Research II (Sp) (1-3) Independent research and group discussion.

ECON5533 Seminar in Advanced Economics I (Irregular) This seminar will cover advanced fields of current research impor- tance in economics. This will facilitate the development of research directions for doctoral study and research. Prerequisite: Graduate standing.

ECON5543 Seminar in Advanced Economics II (Irregular) This seminar will cover advanced fields of current research impor- tance in economics. This will facilitate the development of research directions for doctoral study and research. Prerequisite: Graduate standing.

ECON6623 Econometrics II (Sp) Use of economic theory and statistical methods to estimate economic models. Nonlinear and semiparametric/nonparametric methods, dynamic panel data methods, and time series methods (univariate and nonstationary processes) will be covered. Additional frontier techniques may be covered. Prerequisite: ECON 5613 or AGEC 5613.

ECON700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Educational Leadership (EDLE)

EDLE5033 School Organization and Administration (Fa and Odd years, Su) Analysis of structure and organization of American public education: fundamental principles of school man- agement and administration.

EDLE5023 The School Principalship (Sp, Su) Duties and re- sponsibilities of the public school building administrator: examination and analysis of problems, issues, and current trends in the theory and practice of the principalship.

EDLE5033 Psychology of Learning (Sp, Odd years Su) This course prepares educational leaders to create and sustain a student centered environment in school settings. Students will study learning theory across the lifespan and apply it to the practice of instructional leadership, curriculum design, and staff development.

EDLE5043 Leadership Ethics (Fa, Odd years Su) Leadership as an experiential based course with a focus on ethical decision making that uses case study and practice to study school based ethical dilemmas.

EDLE5053 School Law (Fa and Odd years, Su) Legal aspects of public and private schooling: federal and state legislative statutes and judicial decisions, with emphasis upon Arkansas public education.

EDLE5063 Instructional Leadership, Planning, and Supervision (Fa and Odd years, Su) Instructional Leadership, Planning, and Supervision is designed to prepare practitioners to seize the role of 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.

EDLE5073 Research for Leaders (Sp, Odd years Su) This course introduces research methodology that will support school leaders as consumers of educational research and supervisors of active research within their schools. Practical application of research for school leaders is emphasized.

EDLE5083 Analytical Decision-Making (Sp, Even years Su) Analytical Decision Making is a performance based examination of the principles and practices related to the building administrator’s role in the development, administration, and evaluation of curricular programs in public schools. This includes creating a school culture, fostering communication, aligning curriculum with state mandated standards, and staff development.

EDLE5093 Effective Leadership for School Improvement (Sp, Su, Fa) A performance based examination of strategic plan- ning, group facilitation and decision-making, organizational behavior and development, professional ethics and standards, student services administration, and principles of effective leadership.

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 roles in school workplace settings. May be repeated for up to 3 hours of degree credit.

EDLE599V Seminar (Sp, Su, Fa) (1-6) May be repeated for up to 3 hours of degree credit.

EDLE6023 School Facilities Planning and Management (Odd years, Fa) School facilities planning, management, cost analysis, operations, and maintenance of the school plant.

EDLE6033 School Organizations and Administration (Even years, Sp) Community analysis, politics and education; power groups and influ- ences; school issues and public responses; local policy development.
What are the relative benefits and costs of alternatives? (Same as ESM 6613)

EDRE6223 Research Seminar in Education Policy (Sp)
This course provides students with the opportunity to learn about education policy research by interacting directly with the leading scholars and practitioners in the field. Students will also gain a foundation in the major theories and research methods used to generate evidence-based answers to questions regarding the policy process. This course is a core component of the PhD degree in Education and will be offered in varying formats and with a focus on the literature and research on various major research questions and issues of the day.

EDRE6413 Issues in Education Policy (Fa)
This course examines how K-12 education policy is designed and implemented in the United States and the various outcomes and measures of the policy implementation process. It includes an overview of key education policy topics and debates and issues that are of current interest. This course introduces the students to the world of education policy through an examination of the K-12 education policy landscape and its governing forces.

EDRE6423 Seminar in School Choice Policy (Even years, Fa)
This course examines the development of school choice policies, including charter schools and vouchers, and evaluates their benefits and drawbacks as educational interventions. It introduces students to the full set of school choice policies, including charter schools and vouchers, and evaluates their benefits and drawbacks as educational interventions.

EDRE6453 Seminar in Teacher Education Accountability Policy (Odd years, Sp)
This course examines the relationship between public and private sector education. It explores ways to enhance the quality of teaching and learning in public schools. It uses education reform legislation in several states as case studies to illustrate and complement topics covered in companion courses. It introduces students to the full set of school choice policies, including charter schools and vouchers, and evaluates their benefits and drawbacks as educational interventions.

EDUC100V Freshman Seminar (Irregular)
This course is designed to help students become successful and self-directed learners. It will be offered in up to 3 hours of credit.

EDUC1021 Learning, Leadership, and Change (Sp, Su, Fa)
This course repairs basic student learning. The course introduces students to the full set of school choice policies, including charter schools and vouchers, and evaluates their benefits and drawbacks as educational interventions.

EDUC1021L College Learning II (Fa)
EDUC 1021 supports students as they make the transition into a university environment. The course is designed to help students become successful and self-directed learners. It will be offered in up to 3 hours of credit.

EDUC1021L College Learning (Fa)
EDUC 1021 supports students as they make the transition into a university environment. The course is designed to help students become successful and self-directed learners. It will be offered in up to 3 hours of credit.

EDUC3213 Economics of Education (Sp)
This course applies the principles of economic analysis to education reform. Topics include: human capital and signaling theories; education labor markets; education production functions; public policy and market outcomes; and feedback mechanisms. It covers empirical economic evaluation of education economic theories of economics.

EDUC3223 Economics of Education (Fa)
This course explores historical and institutional factors that shape education policymaking. Particular attention will be paid to the experience of past education reform movements as well as the influence of interest groups, federalism, bureaucracy, governance structures, public opinion, and judicial review on education policy.

EDUC3223 Financial and Education Policy (Sp)
This course examines K-12 education finance from the standpoint of education reform policy. The tools of analysis include economics, public finance, law and political science. Topics include: revenue sources and fiscal federalism, standards-based reform and school finance, school funding formulas, adequacy laws, the politics of school funding, and school financing. The course also features empirical evidence relating to the economic impact of education finance.

EDUC3223 Measurement of Educational Outcomes (Sp)
This course will train students to consider the various types of outcome assessment measures used for education at the K-12 level through the United States; further, the students will engage in analysis of these measures on three various outcome measures. It covers empirical evidence relating to the economic impact of education finance.

EDUC3223 Program Evaluation and Research Design (Fa)
This course provides students with training in the methods used to generate evidence-based answers to questions regarding the efficacy of programs. The course covers measures of trends and outcomes synthesizing evidence from various studies. It covers empirical evidence relating to the economic impact of education finance.

ELEG2103 Electric Circuits I (Laboratory) (Fa)
This course applies economic evaluation of electronic circuit analysis concepts. Topics include: diode behavior and applications, zener diode regulator design, bipolar junction transistor biasing, BJT common-emitter amplifier design, and operational amplifier fundamentals. Corequisite: ELEG 3213.

ELEG2103 Electric Circuits I (Fa)
This course applies economic evaluation of electronic circuit analysis concepts. Topics include: diode behavior and applications, zener diode regulator design, bipolar junction transistor biasing, BJT common-emitter amplifier design, and operational amplifier fundamentals. Corequisite: ELEG 3213.

ELEG3213 Electronics I (Fa)
This course introduces students to electronic systems and signal processing, operational amplifiers, diodes, nonlinear circuit applications, MOSFETs, and BJTs. Corequisite: ELEG 3211L. Prerequisite: ELEG 2113 and PHYS 2074 and MATH 2574.

ELEG3213H Honors Electronics I (Fa)
Introduction to electronic systems and signal processing, operational amplifiers, diodes, nonlinear circuit applications, MOSFETs, and BJTs. Corequisite: ELEG 3211L. Prerequisite: ELEG 2113 and PHYS 2074 and MATH 2574.

ELEG3223 Electronics II Laboratory (Sp)
Selected experiments to illustrate and complement topics covered in companion course. Corequisite: ELEG 3223 - Electronics II Laboratory. Corequisite: ELEG 3223.

ELEG3223 Electronics II (Sp)
This course introduces students to electronic systems and signal processing, operational amplifiers, diodes, nonlinear circuit applications, MOSFETs, and BJTs. Corequisite: ELEG 3211L. Prerequisite: ELEG 2113 and PHYS 2074 and MATH 2574.

ELEG3223H Honors Electronics II (Sp)
Diaphragm and amplifier front end, current mirrors, active loads, multistage amplifiers, amplifier frequency response, power and noise, edfors, millers theorem, short circuit and open circuit time constant methods, feedback amplifiers, and stability of feedback amplifiers. Corequisite: ELEG 3223. Prerequisite: ELEG 2113 and MATH 3404.

ELEG3300 Digital Design (Fa)
Introduction to modern digital computer design, including combinational and sequential circuits, flip-flops, gates, and microprocessors. Corequisite: ELEG 2004. Prerequisite: ELEG 2012 or PHYS 2074 or ELEG 2903.

ELEG3300 Digital Design (Fa)
Introduction to modern digital computer design, including combinational and sequential circuits, flip-flops, gates, and microprocessors. Corequisite: ELEG 2004. Prerequisite: ELEG 2012 or PHYS 2074 or ELEG 2903.

ELEG3300 Electromechanical Energy Conversion Laboratory (Sp)
This course is the associated laboratory component of ELEG 3300 - Electromechanical Energy Conversion. The following topics are covered: three-phase measurements, no-load, short-circuit and load tests of transformers, no-load, blocked-rotor and load tests of induction motors and synchronous machines, and speed control of induction machines. Corequisite: ELEG 3300. Prerequisite: ELEG 2113 or PHYS 2074 and ELEG 3903.

ELEG3303 Electromechanical Energy Conversion (Sp)
This course is the associated laboratory component of ELEG 3300 - Electromechanical Energy Conversion. The following topics are covered: three-phase measurements, no-load, short-circuit and load tests of transformers, no-load, blocked-rotor and load tests of induction motors and synchronous machines, and speed control of induction machines. Corequisite: ELEG 3300. Prerequisite: ELEG 2113 or PHYS 2074 and ELEG 3903.

ELEG3303 Electromechanical Energy Conversion Laboratory (Sp)
This course is the associated laboratory component of ELEG 3300 - Electromechanical Energy Conversion. The following topics are covered: three-phase measurements, no-load, short-circuit and load tests of transformers, no-load, blocked-rotor and load tests of induction motors and synchronous machines, and speed control of induction machines. Corequisite: ELEG 3300. Prerequisite: ELEG 2113 or PHYS 2074 and ELEG 3903.

ELEG3303 Electromagnetics I (Sp)

ELEG3303 Electromagnetics I (Sp)

ELEG3303 Electromagnetics I (Sp)

ELEG3303 Electromagnetics I (Sp)

ELEG3303 Electromagnetics I (Sp)
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ELEG388V Special Problems (Irregular) (1-18) One to 3 hours of credit. Individual study and research on a topic mutually agreeable to the student and a faculty member. Prerequisite: Junior standing. May be repeated for up to 18 hours of degree credit. Pre- or Corequisite: PHYS 2074 and MATH 3404.

ELEG388VH Honors Special Problems (Irregular) (1-18) One to 3 hours of credit. Individual study and research on a topic mutually agreeable to the student and a faculty member. Prerequisite: junior standing. Pre- or Corequisite: ELEG 3883 or ELEG 3933.

ELEG3903 Electric Circuits and Machines (Sp, Fa) Basic electrical principles and circuits, some application to electromechanical systems. For engineering students other than those in electrical engineering, prereqs: MATH 2664 and PHYS 2074.

ELEG3913 Engineering Electronics (Fa) Basic theory and applications of electronic devices and circuits. For engineering students other than those in electrical engineering. Prerequisite: ELEG 3903.

ELEG3923 Microprocessor System Design (Sp, Fa) Introduction to 16-bit microprocessors and their application. Microprocessor architecture and program language; interface devices; system design using microprocessors. Laboratory application. Corequisite: lab component. Prerequisite: ELEG 2903 or ELEG 3913.

ELEG3932 Circuits & Electronics (Sp) Basic principles of electronic circuits and devices. Prerequisites: MATH 3404 and PHYS 2074.

ELEG400V Senior Thesis (Sp, Su, Fa) (1-3) Prerequisite: Senior standing.

ELEG400VH Honors Senior Thesis (Sp, Su, Fa) (1-3) Prerequisite: ELEG 3773.

ELEG4061 Electrical Engineering Design I (Sp, Fa) Design and application in electrical engineering. Prerequisite: ELEG 3223 and ELEG 3923.

ELEG4061H Honors Electrical Engineering Design I (Sp, Fa) Design and application in electrical engineering. Prerequisite: ELEG 4061.

ELEG4061H Honors Stochastic Signal Processing (Fa) Review of system analysis, probability, random variables, stochastic processes, correlation, power spectral density, systems with random inputs in the time and frequency domain, and applications. Pre- or Corequisite: MATH 3123.

ELEG4061H Honors Stochastic Signal Processing (Fa) Review of system analysis, probability, random variables, stochastic processes, correlation, power spectral density, systems with random inputs in the time and frequency domain, and applications. Pre- or Corequisite: ELEG 3123.

ELEG4071 Semiconductor Devices (Irregular) Crystal properties and growth of semiconductors, energy bands and charge carriers in semiconductors, 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. Prerequisites: MATH 3404 and ELEG 3213, or graduate standing.

ELEG4071H Honors Semiconductor Devices (Irregular) Crystal properties and growth of semiconductors, energy bands and charge carriers in semiconductors, 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.

ELEG4213 MEMS and Microsystems (Fa) The aim of this course is to teach the theory and developments in MEMS, microsensors, microsystems, and medical devices and to train the students for the fabrication using microfabrication tools in the clean room. The students will design, fabricate and characterize a MEMS/Microsensor device during the lab hours at the HIDE clean room.

ELEG4223 Design and Fabrication of Solar Cells (Irregular) Solar irradiation and its spectral distribution; p-n junction solar cells in dark and under illumination; solar cell parameters; efficiency limits and losses; standard cell technology; energy accounting; design of solar concentrator studies; fabrication of designed devices in the lab and their measurements.

ELEG4223 Introduction to Integrated Circuit Design (Irregular) Design and layout of large scale digital integrated circuits using VLSI CAD tools. Topics include MOS devices and basic circuits, integrated circuit layout and fabrication, dynamic logic circuit design, and layout strategies for large scale NMOS and CMOS circuits. Prerequisites: ELEG 3213 or ELEG 3933 and MATH 3404.

ELEG4233H Honors Introduction to Integrated Circuit Design (Irregular) Honors level introduction to the design of modern digital integrated circuits using CMOS and NMOS technology. Topics include MOS devices and basic circuits, integrated circuit layout and fabrication, dynamic logic circuit design, and layout strategies for large scale NMOS and CMOS circuits. Prerequisites: ELEG 3213 or ELEG 3933 and MATH 3404.

ELEG4233H Analog Integrated Circuits (Irregular) Theory and design techniques for linear and analog integrated circuits. Current mirrors, voltage to current converters, active loads, compensation, level shifting, amplifier design techniques, circuit simulation using computer-assisted design programs. Prerequisite: ELEG 3223.

ELEG4245 Nanotechnology (Irregular) The objective of this course is to present a concise and concurrent introduction to Nanotechnology and its applications in engineering and medicine, particularly for nanoelectronics, nonconductors and nanocomputing. This course presents basics aspects of the nanotechnology, its fabrication and imaging technologies and integration of biomolecules with electronic systems for the design of devices in nanoelectronics, nanoelectronics and Nanomedicine. Prerequisite: Senior standing or instructor permission. May be repeated for up to 6 hours of degree credit.

ELEG4283 Mixed Signal Test Engineering I (Irregular) Overview of mixed signal testing, the test specification process, DC and AC parameter testing, design for testability, testable hardware, sampling theory, DSP-based testing, analog channel testing, digital channel testing. Prerequisite: Senior or graduate standing.

ELEG4293 Mixed-Signal Modeling & Simulation (Irregular) Study of basic circuit modeling and analysis techniques, and computer simulation methods. Modeling with hardware description language. Use of state-of-the-art simulators and HDLs. Prerequisite: ELEG 3223. ELEG4322 Switch Mode Power Conversion (Irregular) Basic switching principles, quasi-resonant, buck-boost, Cuk, flyback, resonant; pulse width modulation; integrated circuit controllers; switching converter design case studies; SPICE analyses of switching converters; state-space averaging and linearization; and switching converter transfer functions. Prerequisite: ELEG 3223 or ELEG 3123.

ELEG4400 Control Systems (Irregular) Mathematical modeling of dynamic systems, stability analysis, control system architectures and design techniques, state-space and frequency-domain design of feedback control systems; lead, lag, PID compensators. Special topics in microprocessor implementation. Prerequisite: ELEG 3123. (Same as EENG 4213)

ELEG4400H Honors Control Systems (Irregular) Mathematical modeling of dynamic systems, stability analysis, control system architectures and design techniques, state-space and frequency-domain design of feedback control systems; lead, lag, PID compensators. Special topics in microprocessor implementation. Prerequisite: ELEG 3123.

ELEG4411 Advanced Control Systems (Irregular) A second course in linear control systems. Emphasis on multiple-input and multiple-output systems, control of interacting systems, model 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 radar and communications systems will be reviewed. Prerequisite: ELEG 3703.

ELEG4472H Honors Introduction to RF and Microwave Design (Irregular) An introduction to microwave design principles. Transmission lines, passive devices, networks, 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 radar and communications systems will be reviewed. Prerequisite: ELEG 3703.

ELEG4483H Honors Introduction to Antennas (Irregular) Basic antenna types: small dipoles, half wave dipoles, image theory, monopoles, small loop antennas. Antenna arrays: array factor, uniformly excited equally spaced arrays, pattern multiplication principles, nonuniformly 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.

ELEG4503 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 electric signals in cells communicating. We will develop the central electromechanical models from the membrane channel to the organ, building on those excitation, dielectric models for tissue behavior, Debye, Cole-Cole models. Role of bond and water free on tissue properties. Magnetic response of tissues using experimental methods to measure electromagnetic responses to Electrocadiography & Electroencephalography, Microwave Medical Imaging, RF Ablation will be discussed that are common to many electrically active cells in the body. Analysis of Nernst equation, Goldmann equation, linear cable theory, and Hodgkin-Huxley Model of ion action potential generation and propagation. High frequency response of tissues to microwave. Prerequisite: ELEG 3703 or equivalent; MATH 3404 or equivalent; basic Biology. (Same as BENG 4293)

ELEG4875 Special Topics in Electrical Engineering (Irregular) (1-3) Consideration of current electrical engineering topics not covered in other courses. Prerequisite: Senior standing. May be repeated for up to 6 hours of degree credit.

ELEG4877H Honors Special Topics in Electrical Engineering (Irregular) (1-3) Consideration of current electrical engineering topics not covered in other courses. Prerequisite: Senior standing. May be repeated for up to 6 hours of degree credit.

ELEG4880 Special Problems (Sp, Su, Fa) (1-3) Individual study and research on a topic mutually agreeable to the student and a faculty member. Prerequisite: Senior standing. May be repeated for up to 3 hours of degree credit.

ELEG4880H Honors Special Problems (Irregular) (1-3) Individual study and research on a topic mutually agreeable to the student and a faculty member. Prerequisite: senior standing.

ELEG4894 Advanced Digital Design (Irregular) To master advanced logic design concepts, including the design and testing of synchronous and asynchronous combinational and sequential circuits using state of the art CAD tools. Prerequisites: ELEG 2904 or CSCE 2114. (Same as CSCE 4914)

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 loading 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 4535)

ELEG4963H Honors 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 loading 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 4535)
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: ELEG 3923.

ELEG5173L Digital Signal Processing Laboratory (Irregular) Use of DSP integrated circuits. Lectures, demonstrations, and projects. DSP l IC architectures and instruction sets. Assembly language programming and tool sets. Implementation of elementary DSP operations, difference equations, transforms and filters. Prerequisite: ELEG 4603.

ELEG193L Advanced DSP Processors Laboratory (Irregular) Emphasis on use of advanced DSP processors. Parallel processor configurations, timing consideration, specialized programming techniques, and complex pipelines. Prerequisite: ELEG 5173L.

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 microfabrication. Design and development of silicon devices fabricated using SUPREM and SEDAN. In-process analysis techniques. Student review papers and presentations on state of the art fabrication and device technology. Prerequisite: ELEG 4203.

ELEG5242 Microelectronic Fabrication Techniques and Processes (Irregular) 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 etch, oxidation, growth and etch, reactive dry etching, tantalum anodization, photoresist, spin-on dielectric and eutectic soldering. The related metrology modules include microscopic inspection, spectrophotometric measurement of oxide, profilmetry and four-point probe measurements. Prerequisite: ELEG 5273.

ELEG5253L Integrated Circuit Design Laboratory I (Irregular) Design and layout of large scale digital integrated circuits. Students design 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 design of very large scale chips. Prerequisite: ELEG 4233.

ELEG5263L Integrated Circuit Design Laboratory II (Irregular) Students test the I.C. chips they designed in I.C. Design Laboratory I and propose design corrections where needed. Topics include integrated circuit fabrication, test and testing, design for manufacturability, and microprocessor design. Prerequisite: ELEG 5253L.

ELEG5273 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 process considerations. Credit cannot be earned for both MEEG 5273 and ELEG 5273. Prerequisite: ELEG 3123 or ELEG 3919 and MATH 3404. (Same as MEEG 5273.)

ELEG5283 Mixed Signal Test Engineering II (Irregular) Focus calibrations, DAC testing, ADC testing, D/I design, Design for Test, Data Analysis, and Test Economics. Prerequisite: ELEG 4283.

ELEG5313L Fabrication Laboratory I (Irregular) Experimental studies of silicon oxidation, solid-state diffusion, photolithographic materials and techniques, bonding and encapsulation, Fabrication and testing of DI diodes, NPN transistors and MOS devices. Prerequisite: ELEG 5313L.

ELEG5313 Power Semiconductor Devices (Irregular) Carrier transport physics; breakdown phenomenon in semiconductor devices; power bipolar transistors, thyristors, power junction field-effect transistors, power metal-oxide-semiconductor field-effect transistors, and power MOS-bipolar devices. Prerequisite: ELEG 4293.

ELEG5323 Semiconductor Nanostructures I (Irregular) This course is designed to introduce basic theoretical and experimental analyses of low dimensional systems encountered in semiconductor heterojunctions and nanostructures with the 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 Semiconductor Nanostructures I. It is focused on the transport properties, growth, electrical and optical properties of semiconductor nanostructures, and optoelectronic properties. Prerequisite: ELEG 5323 or instructor permission.

ELEG5403 Systems Theory (Irregular) A unified state-space approach to continuous and discrete systems. System dynamics, local transition functions, reachability, observability, and global behavior of systems. Prerequisite: ELEG 4403.

ELEG5453Q Optimal Control Systems (Irregular) Basic concepts, conditions for optimality, the minimum principle, the Hamiltonian-Jacobi equation, structure and properties of optimal systems. Prerequisite: ELEG 4403.


ELEG5513 Electric Power Quality (Irregular) The theory and analysis of electric power quality for industrial and commercial power systems. Specific topics include: grounding, shielding, wiring, power quality, and design considerations for these systems as design tools. Credit may not be earned for both ELEG 5513 and ELEG 5495.

ELEG5533 Power Electronics and Motor Drives (Irregular) V-I characteristics of insulated Gate Bipolar Transistors (IGBTs) and MOS-controlled Thyristors (MCTs), design of driver and snubber circuits, induction- permanent magnet-, and brushless DC-motor drives, and resonant inverters. Prerequisite: Graduate standing or (ELEG 5223 and ELEG 5273).

ELEG5613 Introduction to Telecommunications (Irregular) Overview of public and private telecommunication systems; traffic engineering; communications systems basics, information technol- ogy, communications policies. Prerequisite: ELEG 5533. ELEG 5613. (Same as CSE 5561.)

ELEG5653 Artifical Neural Networks (Irregular) Fundamen- tals of artificial neural networks, both theory and practice. Teaches basic concepts of both supervised and unsupervised learning, and how they are implemented using artificial neural networks. Topics include the perceptron, back propagation, the competitive Hammering net, self organizing feature maps, topological considerations, requirements for effec- tive generalization, subsample analysis, etc. Prerequisite: MATH 3403.

ELEG5693 Wireless Communications (Irregular) Comprehensive course in fast developing field of wireless mobile/ cellular communications. Topics include cellular system structures, mobile radio propagation channels, etc. Prerequisite: Graduate standing.

ELEG5713 Antennas and Radiation (Irregular) Radio frequency antennas, conduction 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 covered in ELEG 4723. It will include discussion of active devices, biasing networks, mixers, detectors, Microwave Monolithic Integrated Circuits (MMIC), and wideband matching networks will be provided. In addition, a number of advanced circuits will be analyzed. Prerequisite: ELEG 4723.

ELEG5763 Advanced Electromagnetic Scattering & Transmission (Irregular) Reflection and transmission of electromagnetic waves from a flat interface, the Pouytng theorem, the complex and average power, the rectangular wave guides, TE and TM modes, radiation from antennas in free space and introduction to computational electromagnetics. Prerequisite: ELEG 3703.

ELEG5773 Electronic Response of Biological Tissues (Irregular) Understand the electric and magnetic response of bio- logical tissues with particular reference to neural and cardiovascular systems. Passive and active forms of electric signals in cell commu- nication. We will develop the central electrical mechanisms from the membrane 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, dielectric models for tis- sue behavior, Deybe, Cole-Cole models. Role of bound and free water on tissue properties. Magnetic response of tissues. Experimental methods to measure tissue response. Applications to Electrocardiography, electrophysiology, Electroencephalography, Medical Imaging. RF Attenuation will be discussed. Students may not receive credit for both ELEG 4773 and ELEG 5773. Prerequisite: MATH 3404. ELEG 3703 or PHYS 3414. BIOL 2533 or equivalent (Same as BIOM 5283).

ELEG6801 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.

ELEG587V Special Topics in Electrical Engineering (Irregular) (1-3) 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.

ELEG588V Special Problems (Sp, Su, Fa) (1-6) Opportunity for individual study of advanced subjects related to a graduate electrical engineering program to meet specific requirements. May be repeated for up to 6 hours of degree credit.

ELEG600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

ELEG601 Advanced Electronic Packaging (Irregular) An advanced treatment of electronic packaging covering a diverse range of packaging applications. Topics include packaging tradeoffs and decisions, design and CAD, assembly single-chip packaging, discrete and hybrid integrated circuits, MEMS and microelectromechanical systems, RF packaging, and microwave packaging, multipack packaging, reliability, and economic considerations. 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.

ELEG700V Doctoral Dissertation (Sp, Su, Fa) (1-18)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL1013H</td>
<td>Honors Composition I (Fa)</td>
<td>A course for freshmen with high placement scores.</td>
</tr>
<tr>
<td>ENGL1023</td>
<td>Technical Composition II (Sp, Su, Fa)</td>
<td>Continuation of ENGL 1013.</td>
</tr>
<tr>
<td>ENGL1023H</td>
<td>Honors Composition II (Sp, Su, Fa)</td>
<td>Continuation of ENGL 1013H.</td>
</tr>
<tr>
<td>ENGL1213</td>
<td>Introduction to Literature (Fa)</td>
<td>Approaches to reading and writing about fiction, drama, and poetry at the college level.</td>
</tr>
<tr>
<td>ENGL2003</td>
<td>Advanced Composition (Sp, Su, Fa)</td>
<td>Review course in English composition. Required of all candidates for bachelor's degree by examination or by credit in ENGL 2013 or by a grade of at least a &quot;B&quot; in ENGL 1013 and a grade of &quot;A&quot; in ENGL 1023 at the University of Arkansas, Fayetteville. Not to be taken before the second semester of the sophomore year; must be taken prior to the last semester before graduation. Cannot be counted toward a major in English. Prerequisite: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2013</td>
<td>Essay Writing (Sp, Su)</td>
<td>Prerequisite: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2023</td>
<td>Creative Writing I (Sp, Fa)</td>
<td>Beginning level workshop course in which students write original poems and stories. Reading and detailed discussion of poems and stories in anthologies is required. Designed to teach the student the fundamental techniques of fiction and poetry. Prerequisite: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2173</td>
<td>Literary America in Old (irregular)</td>
<td>A course that examines the myriad definitions of literary and literary work and its connections to social-class and cultural identity, economic and political structures, educational institutions, cultural organizations, and the media.</td>
</tr>
<tr>
<td>ENGL2303</td>
<td>Survey of English Literature from the Beginning through the 17th Century (Sp, Fa)</td>
<td>A critical and historical survey of the development of literature in the British Isles from its beginnings to the end of the seventeenth century. Prerequisite: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2304</td>
<td>Survey of English Literature from 1700 to 1900 (Sp, Fa)</td>
<td>A critical and historical survey of the development of literature in the British Isles from 1700 to 1900. Prerequisites: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2313</td>
<td>Survey of Modern British, Irish, and Postcolonial Literature (Sp, Fa)</td>
<td>A survey of modern literature in English written in Great Britain, Ireland, Africa, Asia and the Caribbean. Prerequisite: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2343</td>
<td>Survey of American Literature from the Colonial Period through Naturalism (Sp, Fa)</td>
<td>A survey of major American writers from the colonial period to 1900. Prerequisites: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL2353</td>
<td>Survey of Modern American Literature (Sp, Fa)</td>
<td>A survey of American writers after 1900. Prerequisites: ENGL 1013 and ENGL 1023.</td>
</tr>
<tr>
<td>ENGL3013</td>
<td>Technical and Report Writing (Sp, Fa)</td>
<td>Intensive practice in such types of writing as processes, descriptions of mechanism, abstracts, and laboratory and research reports. The criteria for effective written exposition in the scientific areas, including agriculture and engineering. Prerequisite: ENGL 1013 and ENGL 1023 or equivalent.</td>
</tr>
<tr>
<td>ENGL3113</td>
<td>Folktale (Irregular)</td>
<td>Popular literature (ballads, folktales, etc.). Prerequisite: Junior standing.</td>
</tr>
<tr>
<td>ENGL3123</td>
<td>Folk and Popular Music Traditions (Irregular)</td>
<td>Introduction to folk and popular music studies. Emphasis on American traditions.</td>
</tr>
<tr>
<td>ENGL3143</td>
<td>Language and Expressive Culture (Irregular)</td>
<td>This course explores the complex interrelationships of language, culture, and social identity. Verbal art and expressive culture are examined from a variety of anthropological perspectives. Topics include ethnographies of speech, discourse analysis, cultural performances, and the cross-cultural aspects of oral expression. (Same as ANTH 3143, COMM 3143)</td>
</tr>
<tr>
<td>ENGL3173</td>
<td>Introduction to Linguistics (Irregular)</td>
<td>Introduces students to language as a cultural and social phenomenon, including the relationship of language to society and the development of linguistic and phonological, syntactic, and semantic systems of individual languages. Related topics: language history, dialectology, language and its relation to culture and society, the history of linguistic scholarship. Prerequisite: Junior standing. (Same as ANTH 3173, COMM 3173, WLC 3173)</td>
</tr>
<tr>
<td>ENGL3193</td>
<td>History of the English Language (Fa)</td>
<td>Introduces students to the vocabulary from Anglo-Saxon times to the present day.</td>
</tr>
<tr>
<td>ENGL3203</td>
<td>Poetry (Sp, Fa)</td>
<td>A critical introduction to the genre.</td>
</tr>
<tr>
<td>ENGL3213</td>
<td>Fiction (Sp, Fa)</td>
<td>A critical introduction to the genre.</td>
</tr>
<tr>
<td>ENGL3232</td>
<td>Drama (Sp)</td>
<td>A critical introduction to the genre.</td>
</tr>
<tr>
<td>ENGL3283</td>
<td>Topics in Prose and Popular Genres (Irregular)</td>
<td>Survey of a broad topical area in popular culture and popular genres, such as science fiction or detective fiction. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3333</td>
<td>British Short Story (Irregular)</td>
<td>Survey of the British short story in the nineteenth and twentieth centuries, with emphasis on the major writers.</td>
</tr>
<tr>
<td>ENGL3443</td>
<td>Introduction to Chaucer (Irregular)</td>
<td>Course designed primarily for undergraduates. Extensive reading in Chaucer’s major works.</td>
</tr>
<tr>
<td>ENGL3623</td>
<td>The Bible as Literature (Irregular)</td>
<td>The several translations of the Bible; its qualities as great literature; its influence upon literature in English; types of literary forms. (Same as WLT 3623)</td>
</tr>
<tr>
<td>ENGL3713</td>
<td>Topics in Medieval Literature and Culture (Irregular)</td>
<td>Study of the languages, literature and civilization of the British Isles from the 5th to 1500 CE (including Old English, Middle English, Celtic, Anglo-Norman and Scandinavian). Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3723</td>
<td>Renaissance Literature and Culture (Irregular)</td>
<td>The study of the literary works of the English Renaissance, with attention to particular genres, authors, literary movements, historical movements, or other organizing principles. Course content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3733</td>
<td>Topics in Restoration and Eighteenth-Century Literature (Irregular)</td>
<td>The study of Restoration and eighteenth-century literature, with attention to particular genres, authors, literary movements, historical moments, or other organizing principles. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3743</td>
<td>Topics in Nineteenth-Century British Literature and Culture (Irregular)</td>
<td>The study of literature of the 19th century, with attention to particular genres, authors, literary movements, historical movements, or other organizing principles. Course content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3753</td>
<td>Topics in Modern British Literature (Irregular)</td>
<td>This course focuses on the literature and culture of a specific period, with attention to particular genres, authors, literary movements, or other organizing principles. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3763</td>
<td>Topics in African-American Literature and Culture (Irregular)</td>
<td>The study of African-American literature, with attention to particular genres, authors, literary movements, historical moments, or other organizing principles. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3843</td>
<td>Topics in Modern American Literature and Culture (Irregular)</td>
<td>May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL3923</td>
<td>Honors Colloquium (Irregular)</td>
<td>Covers a special topic or issue. Offered as part of the honors program. Prerequisite: honors candidacy (not restricted to candidates in English).</td>
</tr>
<tr>
<td>ENGL399V</td>
<td>Honors Course (Irregular)</td>
<td>Same as ENGL 399V.</td>
</tr>
<tr>
<td>ENGL4013</td>
<td>Undergraduate Poetry Workshop (Irregular)</td>
<td>Gives close attention to individual manuscripts in a workshop environment. Prerequisite: ENGL 3013 or equivalent.</td>
</tr>
<tr>
<td>ENGL4023</td>
<td>Undergraduate Fiction Workshop (Irregular)</td>
<td>Gives close attention to individual manuscripts in a workshop environment. Prerequisite: ENGL 3013 or equivalent.</td>
</tr>
<tr>
<td>ENGL4143</td>
<td>American Film Survey (Irregular)</td>
<td>A survey of major American genres, major directors, and films that have influenced the development of motion pictures. (Same as COMM 4143)</td>
</tr>
<tr>
<td>ENGL4153</td>
<td>Undergraduate Colloquium (Irregular)</td>
<td>Concentrated study of a specific topical area related to literature and culture but not otherwise encompassed by the curriculum. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL4303</td>
<td>Introduction to Shakespeare (Sp, Su)</td>
<td>Extensive reading in Shakespeare’s comedies, histories, tragedies, and nondramatic poetry.</td>
</tr>
<tr>
<td>ENGL4503</td>
<td>Introduction to Literary Theory (Irregular)</td>
<td>A historical survey of literary theory from Plato onwards.</td>
</tr>
<tr>
<td>ENGL4513</td>
<td>Studies in Literary Criticism and Theory (Irregular)</td>
<td>A survey of contemporary trends in literary criticism. Emphasis placed on engaging the major theoretical frameworks. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL4543</td>
<td>Studies in Language and Multiculturalism (Irregular)</td>
<td>The study of literature and multiculturalism, with attention to particular genres, authors, literary movements, historical moments, or other organizing principles. At least one major paper will be required. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL4553</td>
<td>Studies in Literature and Gender (Irregular)</td>
<td>The study of a special topic involving literature and gender. Content varies. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL4554</td>
<td>Studies in Literature and Multiculturalism (Irregular)</td>
<td>The study of literature and multiculturalism, with attention to particular genres, authors, literary movements, historical moments, or other organizing principles. At least one major paper will be required. May be repeated for up to 9 hours of degree credit.</td>
</tr>
<tr>
<td>ENGL4583</td>
<td>Undergraduate Special Studies (Irregular)</td>
<td>Concentrated study of a specific topical area related to literature and culture but not otherwise encompassed by the curriculum. Content varies. May be repeated for up to 3 hours of degree credit.</td>
</tr>
</tbody>
</table>
ENGL498V Seminar in Film Studies (Irregular) (1-9)
Research, discussion, papers on a variety of film genres and areas including the nature of the cinema, directors, the film industry, film dialogue, the experimental film, criticism, the film musical. (Same as COMM 569V) May be repeated for up to 9 hours of degree credit.

ENGL5070V Critical Theory of the Novel (Irregular) (1-3) An introduction to the classical, Marxist, structuralist, and post-structuralist theories of the novel. May be repeated for up to 12 hours of degree credit.

ENGL5090V Seminar in British Literature and Drama (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5100V Readings in English and American Literature (Irregular) (1-6) Open to Honors candidates and graduate students. May be repeated for up to 12 hours of degree credit.

ENGL5173 Seminar in Medieval Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5223 Studies in Renaissance Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5233 Seminar in Theory and Translation (Irregular) An examination of the principal challenges that confront translators of literature, including the translation of style, dialect, ambiguity, and formal poetry; vertical translation; translation where multiple manuscripts exist; the question of how literal a translation should be. May be repeated for up to 12 hours of degree credit.

ENGL5243 Seminar in Special Topics (Irregular) Designed to cover subject matter not offered in other courses.

ENGL5253 Seminar in Fictional Language (Irregular) A study of the select works of modern and contemporary authors of world literature in their original language. May be repeated for up to 12 hours of degree credit.

ENGL5263 Seminar in Nonwestern Literatures and Cultures (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5273 Seminar in Twentieth-Century British Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5283 Seminar in Feminist Theory and Practice (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5293 Seminar in Popular Culture and Popular Genres (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5303 Seminar in Restoration and Eighteenth-Century British Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5313 Seminar in Literary Theory (Irregular) An advanced introductory survey of a number of theoretical approaches to literature.

ENGL5403 Seminar in Nineteenth-Century British Literature and Culture (Irregular) Subject matter changes depending on student interest and faculty expertise. May be repeated for up to 12 hours of degree credit.

ENGL5503 Seminar in Victorian British Literature and Culture (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 WLLT 5623)

ENGL5633 English Drama from Its Beginning to 1642 (Irregular) Early forms, Tudor drama, Shakespeare's contemporaries, and Stuart drama to the closing of the theatres.

ENGL5653 Shakespeare: Plays and Poems (Irregular)
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.

ENTO1031L Field and Laboratory Studies in Entomology (Sp) A systematic survey and identification of insects and other arthropods, with an emphasis on 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 Introduction to Entomology (Fa) Fundamentals of structure, function, biology and identification of insects; typical procedures in control of representative species. Insect collection required. Lecture 2 hours, laboratory 2 hours a week. Suggested prerequisite: BIOL 1543 and ENSC 2203.

ENTO400V Special Problems (Sp, Su, Fa) (1-4) Special Topics course available to both undergraduate and graduate students, to include survey of arthropod pests and damage, population dynamics (Fa), practical and theoretical basis for control of arthropod pests and weeds via parasites, predators, and pathogens. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Laboratory component.

ENTO4033 Applied Molecular Genetics (Even years, Sp) A hands on course in applied molecular genetic techniques used in agricultural research including molecular diagnostics and population genetics. Students will learn how to apply advanced molecular genetic methods to manipulate and study the organism that they are using for their graduate research. Prerequisite: ANSC 3123.

ENTO600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: graduate standing.

ENTO6071 Seminar (Sp, Fa) Fall: special topics not covered in regular course work. Spring: critical review of research papers in entomology. Seminar will be taken by graduate student majors for both semesters. May be repeated for up to 6 hours of degree credit.

ENTO6113 Insect Physiology (Even years, Sp) General and comparative physiology of insects. Previous knowledge of basic entomology is helpful, but not required. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Laboratory component.

ENTO6213 Insect Toxicology (Odd years, Fa) Toxicology of chemicals to insects and humans including techniques of testing collecting data, and factors that influence reactions to different classes of insecticides. Emphasis on biological and organic physiological chemistry is helpful, but not required. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Laboratory component.

ENTO700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: graduate standing.

Educ Stats & Research Methods (ESRM)

ESRM5013 Research Methods in Education (Sp, Su, Fa) General orientation course which considers the nature of research problems in education and the techniques used by investigators in solving these problems. Prerequisite: graduate standing.

ESRM5933 Statistics in Education and Health Professions (Sp, Su, Fa) Applied statistics course for Master’s degree candidates. Includes concepts and operations for frequency distributions, graphical techniques, measures of central tendency and variation, sampling, hypothesis testing, and interpretation of statistical results.

ESRM6553 Educational Assessment (Irregular) Introduction to measurement issues and basic test theory. Focus on types and usage of assessment in education. Prerequisite: graduate standing.

ESRM6563 Experimental Design (Sp, Su, Fa) Principles of experimental design as applied to educational situations. Special emphasis on analysis of variance techniques in educational research. Prerequisite: ESRM 6403 or equivalent.

ESRM6565 Multiple Regression Techniques for Education (Fa) Introduction to multiple regression procedures for analyzing data as applied in educational settings, including multicollinearity, dummy variables, analysis of covariance, curvilinear regression, and path analysis. Prerequisite: ESRM 6403.

ESRM6573 Applied Multivariate Statistics (Sp) Multivariate statistical procedures as applied to educational research including discriminant analysis, principal components analysis, factor analysis, canonical correlation, and cluster analysis. Emphasis on use of existing computer statistical packages. Prerequisite: ESRM 6413.

ESRM6583 Advanced Experimental Design (Irregular) Advanced methodology in experimental design, including linear modeling and longitudinal analysis with a focus on developing the mathematical and theoretical basis for these methods. Prerequisites: ESRM 6413.

ESRM6593 Advanced Multiple Regression (Irregular) Advanced topics of correlational 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.

ESRM6593 Qualitative Research (Sp, Fa) Introduction of non-quantitative methods, including descriptive, phenomenological, ethnographic, field observation, records research, internal and external validity problems in qualitative research. Prerequisite: ESRM 6403.

ESRM6594 Advanced Qualitative Research (Sp) For preparation for and conduct of qualitative research. Structuring, literature reviews, data collection and analysis, and reporting results. Prerequisite: ESRM 6533. May be repeated for up to 6 hours of degree credit.

ESRM6595 Advanced Multivariate Statistics (Irregular) Builds on foundation provided in Multivariate and Advanced techniques that extend methodological elements of canonical, discriminant, factor analytic, and longitudinal analyses, providing the mathematical and theoretical foundations necessary for these data analytic methods. Prerequisite: ESRM 6543.

ESRM6613 Evaluation of Policies, Programs, and Projects (Fa) Introduction to evaluation in social science research, including why and how evaluations of programs, projects, and policies are conducted; includes analysis of actual evaluations in a variety of disciplines. Prerequisite: ESRM 6403. (Same as EDRE 6213)

ESRM6623 Techniques of Research in Education (Sp, Su) Use of scientific method in attacking educational problems. Emphasis placed on the planning and design of research studies, collection of reliable and valid data, sampling methods, and analysis and interpretation of data. Prerequisite: ESRM 6403.

ESRM6553 Measurement and Evaluation (Irregular) Fundamentals of measurement and evaluation theories, reliability, validity, Test and scale construction and item analysis. Standardized measures and program evaluation models in decision making. Prerequisite: ESRM 6403.

ESRM6668V Seminar in Research (Irregular) (1-6) Practical experience in educational research on campus, in school systems, or in other agencies in educational program development.

ESRM699VY Seminar (Irregular) (1-6) Prerequisite: advanced graduate standing. May be repeated for up to 6 hours of degree credit.

ESRM700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.

Educational Technologies (ETEC)

ETEC2001 Educational Technology (Sp, Su, Fa) A criterion-based course designed to provide beginning technology users with conceptual 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 core projects, individual projects, unit quizzes, and a proficiency final examination. Corequisites: ETEC 2001.


ETEC5062 Teaching and Learning with Computer-Based Technologies (Su) Provides students admitted to the Master of Arts in Teaching (M.A.T.) program with the technological experience needed to use computer-based teaching technologies to meet instructional objectives in content area classrooms. Prerequisite: ETEC 2003.

ETEC5106 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, communications, and the Internet in the classroom. Prerequisite: Graduate standing.

ETEC5213 Introduction to Educational Media (Sp, Su, Fa) Instruction in selecting, utilizing and evaluating instructional materials and equipment. Prerequisite: Graduate standing.

ETEC5243 Instructional Design Theory & Models (Fa) A study of the instructional development process as it pertains to the design and production of instructional materials which use modern technology. Goal analysis, objectives, evaluation, instructional strategy development, production of an educational product, and revision of the instructional materials are considered. Prerequisite: Graduate standing.

ETEC5263 Instructional 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 find grant funding sources, write a grant, and submit an actual grant proposal to an agency for consideration. Will survey research in instructional media over the past 60 years and learn specific criteria for reading and
EUST4003H Honors European Studies Colloquium (Sp)  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 2023. May be repeated for up to 6 hours of degree credit.

EXED3071 Program Development and Evaluation (Irregular)  Principles and procedures of program development process including planning, designing, implementing, and evaluating of extension education programs. An emphasis on the framework for applying adult and extension education principles to the change process. Prerequisite: EXED 2023.

EXED5133 Extension Organization and Administration (Irregular)  Program and personnel administration for planning and management of county and district. Empphasis will be given to organization, structures, principles, and theories of administration, personnel management, training and evaluation. Prerequisite: Graduate standing.

Food Science (FDS)  
FDSG1011 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, based on research, information and guidelines. Prerequisite: Lab component. May be repeated for up to 3 hours of degree credit.

FDSG3413 Principles in Visual Literacy (Irregular)  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.

EUST5283 Field Experiences in Educational Technology (Sp, Su, Fa)  A supervised field placement in educational technology that provides experience consistent with the student's professional goals and training emphasis. Field experiences are planned and directed under the guidance of a faculty member. On-campus and on-site supervision is required. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

EUST5373 Web Design (Irregular)  Students design, create, and analyze Web sites by applying processes, standards and techniques used to identify target audience, ensure compliance with copyright and disability laws, and maximize accessibility and effectiveness, and coordinate Web design. 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.

EUST5413 Principles in Visual Literacy (Irregular)  Students gain understanding of visual literacy research and learn to create graphics that support teaching. 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.

FDSC4002 Food Chemistry (Fa)  Water, carbohydrates, lipids, proteins, vitamins, and minerals in foods; biochemical and functional properties, enzymes, food additives (emulsifiers, pigments, colors, antioxidants, and sweeteners) and related issues to properties in food systems and during processing. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: CHEM 3611 and CHEM 3611L. (Same as BIOL 4124)

FDSCG5232 Sanitation and Safety in Food Processing Operations (Even years, Sp)  Topics to be covered include understanding and control of microbial, chemical and physical food hazards as well as emerging food safety issues. Course will include a study of cleaners and sanitizers and equipment and plant design. Biotechnology and food safety will also be discussed. (On-line course)

FDSCG5313 Principles of Food Processing (Even years, Fa)  The course is designed as an overview of the unit, food processing operations common to all types of food processing plants. Examples will be drawn from international food processing operations and practices, operations processing fruits and vegetables, poultry and meat, and oil seeds and cereal grains. Emphasis on oral communication and critical thinking skills. Corequisite: Lab component. Prerequisite: CHEM 1123 and CHEM 1121L and CHEM 2613 and CHEM 2611L or (CHEM 3603 and CHEM 3601L).

FDSCG5703 Fermented Foods (Odd years, Fa)  The course covers the history, production and sensory evaluation of fermented foods. The course 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 2023. May be repeated for up to 6 hours of degree credit.

FDSCG4134 Food Microbiology (Irregular)  Multidisciplinary approach to exposure to real-world food processing situations. Students will develop an understanding of the basics of units systems, mass balances, fluid rheology, fluid flow, heat transfer, and thermal processing. Prerequisite: MATH 4015 and/or consent of instructor.

FDSCG4114 Food Analysis (Even years, Sp)  Methods 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).

FDSCG4124 Food Microbiology (Irregular)  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 4 hours per week. Corequisite: Lab component. Prerequisite: BIOL 2013 and BIOL 2011L and CHEM 1123 and CHEM 1121L. (Same as BIOL 4124)

FDSCG4203 Quality Evaluation 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 MATH 1285.

FDSCG4304 Food Chemistry (Fa)  Water, carbohydrates, lipids, proteins, vitamins, and minerals in foods; biochemical and functional properties, enzymes, food additives (emulsifiers, pigments, colors, antioxidants, and sweeteners) and related issues 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 and CHEM 2613 and CHEM 2611L or (CHEM 3603 and CHEM 3601L).

FDSCG4315 Internship in Food Science (Sp, Su, Fa) (1-4)  The Food Science Internship is a supervised practical work experience with a food industry, research program or governmental agency to gain professional experience and to improve career opportunities. A maximum of 4 hours credit is allowed for degree credit. Prerequisite: Junior standing and consent. For graduate credit, completion of first year of graduate studies and consent of major professor. FDSCG4411 Sensory Evaluation of Food (Odd years, Fa)  Principles and procedures for sensory evaluation of food. Appropriates uses of specific tests are discussed, along with physiological, psychological, and environmental factors affecting sensory verdicts. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: STAT 2303 or WOCD 1033 or AGST 4023 or STAT 2033 or PSYC 5173. FDSCG4713 Food Product and Process Development (Odd years, Sp)  Multidisciplinary approach to exposure to real-world food processing situations. Students will develop an understanding of the basics of units systems, mass balances, fluid rheology, fluid flow, heat transfer, and thermal processing. Prerequisite: MATH 1285, PHYS 1121, and PHYS 1123.

FDSCG4823 Principles of Food Microbiology (Fa)  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, HACCP, sanitation, and biosecurity. Also covered will be considerations in selecting, establishing and maintaining a sanitation program. Prerequisites: General Microbiology or Food Microbiology General Chemistry. FDSCG4833 Fermented Foods, an introduction to the fundamentals of food microbiology to include its history, classifications, spores and their importance, and the most common and serious pathogenic food microorganisms. Fermentation, spoilage microorganisms and control methodology are also discussed.

FDSCG5001 Seminar (Sp, Fa)  Presentation and discussion of the professional literature. Prerequisite: Graduate standing.

FDSCG509V Special Problems Research (Sp, Su, Fa) (1-4)  Original investigation on assigned problems in food science. Prerequisite: Graduate standing.

FDSCG5403 Separation 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, HACCP, sanitation, and biosecurity. Also covered will be considerations in selecting, establishing and maintaining a sanitation program. Prerequisites: General Microbiology or Food Microbiology General Chemistry.

FDSCG5433 Fermented Foods, an introduction to the fundamentals of food microbiology to include its history, classifications, spores and their importance, and the most common and serious pathogenic food microorganisms. Fermentation, spoilage microorganisms and control methodology are also discussed.
FREN3033 French Conversation (Fa) Three hours per week of guided conversation practice for the post-intermediate student. Prerequisite: FREN 2013.

FREN3063 Ph.D. Reading Requirement I (Su) FREN3103 Cultural Readings (Sp, Su, Fa) A course designed to build vocabulary and to strengthen reading skills and oral expression through the reading of culturally authentic materials. Prerequisite: FREN 2013.

FREN3113 Introduction to Literature (Sp, Su, Fa) Further development of reading skills and introduction to literary commentary and analysis. Prerequisite: FREN 3003 or FREN 3103.

FREN399V Honors French Course (Sp, Fa) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

FREN4003 French Grammar and Composition (Fa) Prerequisite: FREN 3003 or FREN 3103.

FREN4033 French for Oral Proficiency (Sp) Three hours per week of conversation practice for the advanced undergraduate. Prerequisite: FREN 3003 or FREN 3103.

FREN4113 Special Themes in French Literature (Irregular) Topics not normally covered in period courses. Sample topics: "The Comic Tradition in French Literature," "French Cinema," Topics announced in advance. Prerequisite: FREN 3113. May be repeated for up to 3 hours of degree credit.

FREN4203H Honors Quebec Studies (Irregular) A study of Quebec's culture, institutions, economy, literature and cinema. Prerequisite: FREN 3003.

FREN4213 French Civilization (Sp) Prerequisite: FREN 3113.

FREN4223 A Survey of French Literature (Irregular) A survey of French literature. Its forms and themes from the medieval period through the 18th century. Prerequisite: FREN 3113.

FREN4233 A Survey of French Literature II (Sp, Su, Fa) A survey of French literature, its forms and themes in the 19th and 20th centuries. Prerequisite: FREN 3113.

FREN4333 Business French (Fa) Introduction and orientation to the French world of business and environment through the study of vocabulary, forms, and formulas and expression used in commercial correspondence. Prerequisite: FREN 3113.

FREN4470V Special Investigations (Sp, Fa) (1-6) Prerequisite: FREN 3003.


FREN5503 Advanced French Conversation (Irregular) A course to improve students' skills and increase their vocabulary. May be repeated for up to 6 hours of degree credit.

FREN5553 French Old 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 time.

FREN5633 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 explicate the poems. Prerequisite: FREN 3113.

GEOG1123 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 social problems and economic decision making.

GEOG2003 World Regional Geography (Sp, Fa) Taught as a seminar in world geography, with an emphasis on development, potential, and physical and human resources of the developing and developed world. Prerequisite: GEOL 1113.

GEOG3003 Climate and 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.

GEOG3033 Building Materials and Building Codes (Sp, Su, Fa) Study of building materials, their availability, strength, durability, 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.

GEOG3333 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 highways of international trade; its marine and submarine resources as presently and potentially useful to man. Offered as physical science. Prerequisite: Junior standing.

GEOG3343 French Natural Regions of North America (Irregular) The study of natural regions of North America. This course will examine the major natural regional divisions of North America. The soils, landforms, climate, hydrology, and flora and fauna of the principal natural regions of the United States, Canada, and Central America are examined.

GEOG3353 Economic Geography of the United States (Irregular) Systematic study of the geographical distribution of economic activities in the countries of the Northern American Free Trade Agreement. Prerequisite: Junior standing.

GEOG3383 Principles of Landscape Evolution (Fa) Examines the role of rivers, waves, 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. May be repeated for up to 3 hours of degree credit.

GEOG3923H Honors Colloquium (Irregular) Covers a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in geography).

GEOG5003H Honors Conservation of Natural Resources (Irregular) Required of Honors students. Honors candidacy (not restricted to candidacy in geography).

GEOG5093 History of Geography (Even years, Sp) Taught as a seminar in the history of geography, its development, and the evolution of the major conceptual geography. Prerequisite: Graduate standing.

GEOG510V Special Problems in Physical Geography (Sp, Fa) (1-6) Prerequisite: Graduate standing. May be repeated up to 6 hours of degree credit.

GEOG5113 Global Change (Fa) Examines certain issues of global change including natural and human induced climate change, air pollution, deforestation, desertification, wetland loss urbanization, and the biodiversity crisis. The U.S. Global Change Research Program is also examined. (Same as ENGY 5113)

GEOG5202V Special Problems in Human Geography (Sp, Fa) (1-6) Prerequisite: Graduate standing. May be repeated up to 6 hours of degree credit.

GEOG5203V Special Problems in Regional Geography (Sp, Fa) (1-6) Prerequisite: Graduate standing.

GEOG5333 Planetary Atmospheres (Irregular) Origin and configuration of atmospheres, structures of atmospheres, climate evolution, dynamics of atmospheres, levels in the atmosphere, the upper atmosphere, escape of atmospheres, comparative planetology of atmospheres.

GEOG5333 Research Methods and Materials in Geography (Odd years, Fa) Geographical research and the preparation of research papers. Prerequisite: Graduate standing.

GEOG6002V Master's Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

Geography (GEOG)

GEOG1111M Honors General Geology Laboratory (Fa) Survey of geographical processes and products and their relationships to landforms, natural resources, living environments, and human endeavors. Lecture 3 hours, laboratory 2 hours per week. Corequisites: GEOG 1113H.

GEOG1111L 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: GEOG 1113.

GEOG1113 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. GEOG 1111L is recommended as a corequisite.

GEOG1113H Honors General Geology (Irregular) Survey of geological processes and products and their relationships to landforms, natural resources, living environments, and human beings. Lecture 3 hours, laboratory 2 hours per week. Corequisites: GEOG 1111M.

GEOG1131L Environmental Geology Laboratory (Sp) Labo- ratory 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: GEOG 1113 and GEOG 1111L) or (GEOG 1003 and GEOG 1001L).

GEOG1133 Environmental Geology (Sp) The application of geologic principles and knowledge of problems created by human occupancy and exploitation of the physical environment. Prerequisite: GEOG 1113 and GEOG 1111L) or (GEOG 1003 and GEOG 1001L).

GEOG2313 Minerals & Rocks (Fa) General principles of miner- ally and petrology, study and identification of common minerals,
IGEOS4040 Introduction to Geographic Information Systems (Fa, Sp) Applications and techniques for converting digital information into geographic information systems. Through laboratory exercises and lectures multidisciplinary applications are examined in database creation, remotely sensed data handling, elevation models, and resource models using vector and raster data bases. May be repeated for up to 6 hours of degree credit. GEOS4173 Principles of Remote Sensing (Fa) Fundamental concepts of remote sensing of the environment. Optical, infrared, microwave, LIDAR, and in situ sensor systems are introduced. Remote sensing of vegetation, water, urban landscapes, soils, mineral, and geomorphology is discussed. The course includes laboratory exercises in geomatics software and both remote and in situ sensor system field trips. Prerequisite: University science course.

GEOS4523 Computer Mapping (Sp) This course addresses advanced cartographic concepts (i.e., visual hierarchy, aesthetics, image cognition) and production techniques as they relate to computer-aided cartographic software. Students produce a variety of maps using ArcGIS and Illustrator software to build a map portfolio. Field trips may be required. Prerequisite: GEOS 3023.

GEOS4553 Introduction to Raster GIS (Fa) Theory, data manipulations, and techniques for analysis of geo-spatial information systems. Through laboratory exercises and lectures multidisciplinary applications are examined in database creation, remotely sensed data handling, elevation models, and resource models using vector and raster data bases. Prerequisites: GEOS 3453 or ARTH 3453. (Same as ANTH 4553)

GEOS4563 Geology of Our National Parks (Fa) This course examines the underlying geology 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.

GEOS4567H Honors Geology of Our National Parks (Fa) This course examines the underlying geology 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 demographics, urban and regional planning, and other business applications. Multidisciplinary applications are examined in database creation, remotely sensed data handling, elevation models, and resource models using vector and raster data bases. Lectures focus on development of principles, paralleled by workstation-based laboratory exercises using mainstream GIS software and relational data bases. Prerequisites: GEOS 3453 or GEOS 3454. (Same as ANTH 4583)

GEOS4593 Introduction to Global Positioning Systems (Fa) Fundamentals of navigation, mapping, and high-precision positioning using the Navstar Global Positioning System. Topics include datums, definitions, and terminology of coordinate systems, coordinate reference systems, and positioning accuracy. Multidisciplinary applications are examined in database creation, remotely sensed data handling, elevation models, and resource models using vector and raster data bases. Prerequisites: GEOS 3453 or ANTH 4553.

GEOS4603 Advanced Raster GIS (Odd years, Sp) Advanced raster topics are examined beginning with a theoretical and methodological review of Tolkim’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 examined with links to statistical analysis software. Prerequisites: GEOS 4553 or ANTH 4553.

GEOS4693 Environmental Justice (Sp) This course deals with the ethical, environmental, legal, economic, and social implications of society’s treatment of the poor, the disenfranchised, and minorities who live in the less desirable, deteriorating neighborhoods, communities, and niches of our country. The course involves ethics, social justice, law, drawing on award-winning films, current news, and case studies. GEOS4693H Honors Environmental Justice (Sp) This course deals with the ethical, environmental, legal, economic, and social implications of society’s treatment of the poor, the disenfranchised, and minorities who live in the less desirable, deteriorating neighborhoods, communities, and niches of our country. The course involves ethics, social justice, law, drawing on award-winning films, current news, and case studies. GEOS4863 Quantitative Techniques in Geosciences (Sp) An introduction to the application of standard quantitative and spatial
Covers a study of the novelle as a genre from its origin to the present. Prerequisite: GERMAN 3013.

GERM 4143 German Lyric Poetry (Irregular) A study of the forms and themes of German lyric poetry from the middle ages to the present. Prerequisite: GERMAN 4103.

GERM 4121 German Civilization (Irregular) Prerequisite: GERMAN 2013 or equivalent.

GERM 4333 Business German I (Fa) Introduces students to the language and business culture in contemporary German-speaking societies. Prerequisite: GERMAN 2013 or the equivalent.

GERM 570V Special Topics (Irregular) (1-3) May be offered in a topic not specifically covered by courses otherwise listed. May be repeated for a maximum of 6 hours of degree credit.

GERM 5053 German Literature: Enlightenment, Storm and Stress, and Classicism (Sp, Su, Fa) Prerequisites: GERMAN 5343 and GERMAN 5363. German literature after 1845 (Sp, Su, Fa) Prerequisite: GERMAN 5053. Special topics (Sp, Su, Fa) of a subject not specifically covered by the courses otherwise listed. May be repeated for a maximum of 6 hours of degree credit.

GERM 5057 Advanced Special Investigations (Sp, Su, Fa) (1-15) May be repeated for a maximum of 6 hours of degree credit.

GNEG 1103 Introduction to Engineering (Sp) This introductory course for undergraduate freshmen students introduces them to the fields 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 performing a degree in engineering. Prerequisites: College algebra and programming language.

GNEG 3103 Introduction to Engineering I (Fa) Fundamentals of 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.

GNEG 4111IH Honors Introduction to Engineering I (Fa) Fundamentals of 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.

GNEG 1121I Introduction to Engineering II (Sp) 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. Selection of 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.

GNEG 1121IH Honors Introduction to Engineering II (Sp) Further study of engineering problem-solving including skills from mathematics, science, and computing. Experience with 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 students only. Prerequisite or Corequisite: MATH 2554.

GNEG 122 Introduction CAD (Sp, Fa) General course in the use of engineering drawings for communications and design. Proper use of computer for computer-aided drafting and design; computer-aided drafting equipment; drafting drafting equipment; geometrical design; orthographic projections; auxiliary view; sketching; dimensioning. Pre- or Corequisite: MATH 1213 or higher. Corequisite: Lab component.

GNEG 5334 Early Modern German Literature: Late 19th and Early 20th Century (Sp, Su, Fa) Prerequisite: GERMAN 5363. German literature after 1945 (Sp, Su, Fa) Prerequisite: GERMAN 5053. Special topics (Sp, Su, Fa) of a subject not specifically covered by the courses otherwise listed. May be repeated for a maximum of 6 hours of degree credit.

GNEG 570V Special Investigations (Sp, Su, Fa) (1-15) May be repeated for a maximum of 6 hours of degree credit.

GNEG 5801 Internship (Sp, Su, Fa) Supervised experience in industry where students can learn to apply classroom skills to problems in the real-world environment. Prerequisite: Instructor consent. May be repeated for up to 12 hours of degree credit.

GNEG 5811 Cooperative Education (Sp, Su, Fa) Supervised experience in industry where students can learn to apply classroom skills to problems in the real world environment. Prerequisite: Instructor consent. May be repeated for up to 12 hours of degree credit.

GNEG 5811H Honors Cooperative Education (Sp, Su, Fa) Supervised experience in industry where students can learn to apply classroom skills to problems in the real world environment. Prerequisite: Instructor consent. May be repeated for up to 12 hours of degree credit.

GNEG 5103 Globalization and Innovation (Irregular) Integration of engineering in the globalized business environment. Innovation and integration models. Global survival skills. International organizational value-chain. Conducting business with emerging nations. Case studies; field trips; guest lectures. Experiential learning design component. Taken by students participating in departmental approved study abroad programs. May not earn credit for GNEG 4103 or 5103.

GNEG 5103H Honors Globalization and Innovation (Irregular) Integration of engineering in the globalized business environment. Innovation and integration models. Global survival skills. International organizational value-chain. Conducting business with emerging nations. Case studies; field trips; guest lectures. Experiential learning design component. Taken by students participating in departmental approved study abroad programs. May not earn credit for GNEG 4103 or 5103.

GNEG 5103VH Honors Special Topics (Irregular) (1-4) Consideration of current engineering topics not covered in other courses. Prerequisite: Instructor consent. May be repeated for up to 4 hours of degree credit.

GNEG 5303H Honors Special Topics (Irregular) (1-4) Consideration of current engineering topics not covered in other courses. Prerequisite: Instructor consent. May be repeated for up to 4 hours of degree credit.

GNEG 3103 Introduction to Engineering I (Fa) Fundamentals of 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.

GNEG 3103IH Honors Introduction to Engineering I (Fa) Fundamentals of 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.

GNEG 390VH Honors Special Topics (Irregular) (1-4) Consideration of current engineering topics not covered in other courses. Prerequisite: Instructor consent. May be repeated for up to 4 hours of degree credit.

GNEG 4103 Globalization and Innovation (Irregular) Integration of engineering in the globalized business environment. Innovation and integration models. Global survival skills. International organizational value-chain. Conducting business with emerging nations. Case studies; field trips; guest lectures. Experiential learning design component. Taken by students participating in departmental approved study abroad programs. May not earn credit for GNEG 3103 or 5103.

GNEG 490VH Honors Special Topics (Irregular) (1-4) Consideration of current engineering topics not covered in other courses. Prerequisite: Instructor consent. May be repeated for up to 4 hours of degree credit.
**Human Environmental Sciences (HESC)**

**HESC1013** Introduction to Clothing Concepts (Sp, Fa)
- Origin of dress, the evolution of fashion as 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 1021 and HESC 1041.

**HESC1023** Nutrition for Exercise and Sport (Sp)
- The functions of food, body processes, optimum diets in relation to health and physical fitness.
- Lecture 3 hours per week. Pre- or corequisite: PSYC 2003.

**HESC1031** About the Profession (Fa)
- Laboratory exercises in the sociological and psychological aspects of clothing in various cultures, aesthetics of dress, selection and consumption of clothing in relation to fashion and professionalism. Lecture 3 hours per week.

**HESC1034** Studio II: Design Exploration II (Sp)
- Lab 2 hours per week. Pre- or corequisite: HESC 1031 and HESC 1043.

**HESC1040** Introduction to Dietetics and Nutrition (Fa)
- Lecture 3 hours per week. Pre- or corequisite: HESC 1021 and HESC 1041.

**HESC1044** Observation of Children in Early Childhood Programs (Sp)
- Observation of children in early childhood programs. Lecture 3 hours per week.

**HESC1053** Nutrition in Health (Sp, Fa)
- Laboratory exercises in the sociological and psychological aspects of clothing in various cultures, aesthetics of dress, selection and consumption of clothing in relation to fashion and professionalism. Lecture 3 hours per week.

**HESC1201** Orientation to Human Environmental Sciences (Sp, Fa)
- Lecture 3 hours per week. Pre- or corequisite: HESC 1021 and HESC 1041.

**GRSD 5003** Seminar on selected topics for those anticipating graduate work in the field. May be repeated for up to 3 hours of degree credit.

**HESC2013** Quality Assurance of Apparel (Sp, Fa)
- Study of apparel from the perspective of structure, aesthetics, cost and expected performance of the finished product. Lecture 2 hours per week, lab 2 hours per week. Pre- or corequisite: HESC 1203 and HESC 1041.

**HESC2023** Visual Merchandising and Fashion Promotion (Sp, Fa)
- Principles and techniques of visual merchandising and fashion promotion as a means of mass communication in the fashion industry. Window display and store floor planning for commercial purposes. Lecture 2 hours, laboratory 2 hours per week. Pre- or corequisite: APST majors only.

**HESC2033** 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. Pre-requisite: HESC 1403 or PSYC 2003.

**HESC2203** Food Service Purchasing (Fa)
- Lecture 2 hours per week. Pre- or corequisite: HESC 1603.

**HESC2413** Field Experience (Sp, Fa)
- Courtship, marriage, and parenthood in the United States, with attention to cultural and psychological factors which affect these characteristics during marriage, family life, on-campus and Web-based delivery sections are offered. Lecture 3 hours per week. Pre- or corequisite: HESC 1031 (applies to HESC majors only).

**HESC2433** Child Development (Sp, Fa)
- 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. Pre-requisite: HESC 1403 or PSYC 2003.

**HESC2443** The Hospitalized Child: Child Life Programming (Sp, Fa)
- Lecture 2 hours per week. Pre- or corequisite: HESC 1603.

**HESC2603** Food Service Purchasing (Fa)
- Lecture 2 hours per week. Pre- or corequisite: HESC 1603.

**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. Pre-requisite: HESC 1031.

**HESC2643** Principles of Tourism (Sp)
- Application of economic and regional development concepts and theories to destination product development. Provides a broad overview of tourism planning at the local, regional and national level while providing a variety of practical planning theories, procedures and tourism guidelines to meet the diverse needs of travelers, destination development professionals, and local community leaders. Pre-requisite: HESC 1203 and HESC 1041.
1. Course Descriptions

2. Community and hospitality organizations, public and non-governmental organizations, and the private sector. Prerequisite: HESC 1603.

3. HESC 2802 Space Planning and Communication (Fa) An introduction to interior space articulation and the creation of small scale spaces. Component of various presentation methods and formats. Overnight travel requires additional fees. Prerequisite: HESC 1053, HESC 2013, HESC 2023, and HESC 3003.

4. HESC 2815 Studio 4: Design Programming (Sp) Studio with emphasis on concept development, design theory and applications, ideation, programming and computer application. Over-night travel requires additional fees. Prerequisite: HESC 2802, HESC 2803, and HESC 3003.

5. HESC 2823 Interior Design Materials and Resources (Fa) A study of materials and resources used in designing residential and contract interiors. CSCI format utilized. Lecture 3 hours per week. Corequisite: HESC 1044 and HESC 2853.

6. HESC 2853 Introduction to Textiles for Interior Designers (Sp) Introduction to textile properties as they apply to interior applications, emphasis on interior serviceability and codes.

7. HESC 2883 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.

8. HESC 3003 Apparel Production (Sp, Fa) A study of product development and production and the related vocabulary necessary to communicate professionally within the industry. Laboratory 6 hours per week. Prerequisite: HESC 1023 and HESC 2013.

9. HESC 3013 Introduction to Fashion Merchandising (Sp, Fa) A study of the fashion business. Included are contract procedures, store structure, store jobs, descriptions, responsibilities at the management level, structural operations, work procedures, job performance evaluation, job application, the resume, interdependences of store jobs, fees, and contractual terms.

10. Recommended for students seeking a career in business organizations who produce and/or distribute fashion products and services. Lecture 3 hours per week. Prerequisite: HESC 1013 and (AGEC 1103 or EED 2293).

11. HESC 3033 Fashion Merchandising Methods (Sp, Fa) Exploration of activities associated with the procurement 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.

12. Lecture 3 hours per week. Prerequisite: HESC 1013 and Math 1203.

13. HESC 3023 Nutrition for Health Professionals and Educators (Sp) A course for nutritionists, educators and nutritionists. Nutritional needs will be determined according to various age/stage appropriate for children ages 3-8. Lecture 2 hours per week. Laboratory 2 hours per week. Prerequisite: HESC 2815 and HESC 3843 and a satisfactory portfolio review.

14. HESC 3815 Studio 5: Large Scale Commercial Interiors (Sp) Advanced studio problems involving larger-scale interior spaces for public use. Prerequisite: HESC 3023 or HESC 4813. Corequisites: HESC 4813 and HESC 4823. Prerequisite: HESC 3805.

15. HESC 3841 Portfolio Workshop (Fa) Preparation of portfolio and materials for interior design profession.

16. Prerequisite: Junior standing in the interior design major. May be repeated for up to 3 hours of degree credit.

17. HESC 3843 Building Systems for Interior Design (Sp) Exploration of interior design applications of lighting, electrical, and other building systems. Prerequisite: HESC 2815. Corequisites: HESC 2815 or equivalent.

18. HESC 4000 Special Problems (Sp, Su, Fa) (1-6)

19. HESC 4023 Advanced Apparel Merchandising (Sp, Fa) Advanced apparel merchandising aspects of fashion through interpretation of apparel classification, seasonal cycles, stock effects, assortment strategies, target customers, and apparel trends and an overview of marketing communication including advertising, personal selling, pricing, and promotion. Laboratory 2 hours per week. Prerequisite: HESC 3013 and HESC 3033.

20. HESC 4033 Advanced Textile Study (Sp) Use of advanced computer-aided design (CAD) software to enhance skills in textile studies in a computer laboratory environment. Lecture 2 hours. Laboratory 2 hours per week. Prerequisite: HESC 1053 and HESC 2053.

21. HESC 4043 History of Apparel (Fa) The evolution of clothing from prehistoric times to the nineteenth century with emphasis upon Western civilization. Cultural and economic factors affecting dress and customs associated with dress will be stressed. Lecture three hours per week. Prerequisite: ANTH 1023 or SOCI 1023 and HESC 1013.

22. HESC 4053 Contemporary Apparel Fashion (Sp) as a social force, the origin, scope, theory, and history of the fashion business, the materials of fashion, the fashion producers, auxiliary fashion enterprises, dependency on consumerism, and changing market. Lecture 3 hours per week. Prerequisite: HESC 4043.

23. HESC 4063 Advanced Apparel Production (Sp, Fa) An advanced study of product development incorporating technology used in the industry for a career in fashion merchandising and product development in a computer laboratory environment. Lecture 2 hours and laboratory 2 hours per week. Prerequisite: HESC 3003 and HESC 2013.

24. HESC 4071 Apparel Studies Pre-Internship (Sp) A study of job descriptions, responsibilities at the management level, structural operations, work procedures, job performance evaluations, job application, resume, and portfolio development in preparation for HESC 4082. Apparel Studies Internship. Laboratory 1 hour per week.

25. Prerequisite: Junior Standing or consent of instructor.

26. HESC 4082 Apparel Studies Internship (Sp, Su, Fa) A practical experience in a retail store or in a work situation related to the apparel industry through the field of apparel merchandising and operations. Prerequisite: Junior standing and 2.50 cum GPA and HESC 1053, HESC 2013, HESC 2023, HESC 3003, HESC 3013 and HESC 3033 and HESC 4071 and consent of instructor.

27. HESC 4083 Exhibit Planning (Sp) Exhibit planning and management for use in various careers. Project work will include the use of experimental methods for investigations in cookery. Group and individual projects. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: HESC 2112 and HESC 2111L and CHEM 1123 and HESC 2112 and HESC 2111L and CHEM 1074 and CHEM 1071L.

28. HESC 4213 Advanced Nutrition (Fa) Normal nutrition with emphasis on utilization of nutrients. Lecture and reports on current literature 3 hours per week. Prerequisite: CHEM 3813 and HESC 3003.

29. HESC 4242C4232 Nutrition During the Life Cycle (Sp) Study of normal nutrition emphasizing quantitative needs for nutrients as functions of biologic processes that vary during stages of the life cycle. Nutritive needs during pregnancy and childhood are reviewed. Factors that affect food choices and eating behavior are also considered. Lecture 3 hours per week. Prerequisite: HESC 1213 and either (Biol 2213 and Biol 2211L or ANSC 3032 or PSSC 3032 or OSU 3032 or OSU 3043) or (CHEM 1024 and CHEM 1071L and Biol 1543 and Biol 1541L).

30. HESC 4243 Community Nutrition (Sp) Identifying, assessing, and developing solutions for nutritional problems encountered at the community, regional, and international levels. Lecture 3 hours per week. Prerequisite: HESC 1213.

31. HESC 4245V Food and Nutrition Seminar (Sp) (1-2) Upper-division graduate student and members of faculty meet weekly for presentation and discussion of selected topics. Two credits (2 semester) required of all foods and nutrition graduate students. Prerequisite: HESC 3023. May be repeated for up to 2 hours of degree credit.

32. HESC 4264 Medical Nutrition Therapy I (Sp) Principles of nutritional care with emphasis on pathophysiology, assessment, and treatment of chronic illnesses. Lecture 3 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: HESC 2802, HESC 2815, and BBL 2211L (or ANSC or POSC 3042) and CHEM 3813.

33. HESC 4273 Medical Nutrition Therapy II (Sp) Principles of nutritional care with emphasis on pathophysiology, assessment, and treatment of critical illness. Lecture 3 hours per week. Prerequisite: HESC 4264.

34. HESC 4303 Professional Development in Human Environmental Sciences (Sp) Enrichment of the professional and personal development of students by exposure to various models of parent involvement will be explored. Students will plan a school-community collaborative which values diverse cultures.

35. HESC 4332 Curriculum and Assessment: Birth to Three Years (Sp) The course will cover the planning and assessment in programs serving children from birth to three years of age. Emphasis will be on responsive relationships and curriculum focused on routines and activities.

36. Prerequisite: HESC Corequisite: HESC 4302, HESC 4302L, and HESC 4302L.

37. HESC 4332L Curriculum and Assessment: Birth to Three Years Laboratory (Sp) Laboratory: Corequisite: HESC 4332.

38. HESC 4342 Curriculum and Assessment: Three Years through Kindergarten (Fa) See description of HESC 4332. Emphasis for assessment for children three years of age through kindergarten.

39. Emphasis will be on professionalism, philosophy and a code of ethics. Students will interact with young children and facilitate development through care-giving experiences with young children. Prerequisite: HESC 1141L, HESC 4302, and HESC 4302L. Corequisite: HESC 4342L.

40. HESC 4342L Curriculum and Assessment: Three Years through Kindergarten (Fa) Laboratory: Corequisite: HESC 4342.

41. HESC 4373 Field Experience in Birth through Kindergarten Programs (Sp) This course provides the student with interactive and observational experiences with young children in community-based early childhood programs. Prerequisite: HESC 4332, HESC 4332L, HESC 4342, and HESC 4342L.

42. HESC 4423 Adult Development (Fa) Examine individual development beginning with the transition adulthood through middle age. approximate ages range 46-86 years. Content focuses on physical, cognitive, 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 accompany adulthood are emphasized. Prerequisite: HESC 1403 or PSYC 2003 and junior standing.

43. HESC 4433 Dynamic Family Interaction (Sp) Examination of family interaction across the lifespan. Methods for enhancing relationships and family relations will be examined. Sources of marital conflict, intergenerational support and negotiations process will be analyzed. Lecture three hours per week. Prerequisite: HESC 2413 and junior standing.

44. HESC 4434 Gerontology (Sp) Physiological and psychological development of the aging individual, extended family relations, and retirement activities. Some attention to housing and care needs of persons in advanced years.
Course Descriptions

HIED503 Overview-American Higher Education (Fa) A ba-sic course in the study of higher education open to all students seeking careers in colleges and universities. Serves as an introduction to the programs, problems, issues, and trends in higher education.

HIED503 College Students and Student Personnel Services (Fa) Study of origins, functions, and policies in student personnel services in contemporary colleges and universities.

HIED504 The Student in Higher Education (Sp) Provides those who work or plan to work in post-secondary educational institutions with an understanding of the student population in contemporary colleges and universities.

HIED504V Practicum in Higher Education (Sp, Su, Fa) (1-6) Students are assigned to a department or agency within or outside the university for professional experience under the joint supervision of the student and faculty supervisor.

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supervision of on-site personnel and university faculty. Periodic meetings are scheduled for evaluation, discussion, and examination of technical progress.

HIED5053 The Community-Junior College (Irregular) An overview of the community college. Topics include the history and philosophy of the community college movement, student, curricular, and developmental needs, teaching, student personnel work, finance and issues, problems, and trends.

HIED5073 Management of Higher Education Institutions (Su, Fa) Principles and concepts of management and their application in higher education and university settings.

HIED5083 History and Philosophy of Higher Education (Sp) An examination of the history and development of higher education including the study of the philosophy, objectives, functions, and forms of different types of institutions.

HIED5173 Individual and Group Management Skills (Even years, Sp) Development of knowledge, skill, and confidence in personal management, interpersonal relations, and structured group facilitation in a higher education setting. Prerequisite: Graduate Standing. For students not enrolled in the Higher Education Leadersh- program, permission of the instructor.

HIED574V Internship (Sp, Su, Fa) (1-3) Supervised field experiences in student personnel services, college administration, academic advising, institutional development, or other areas of college and university work.

HIED600V Master’s Thesis (Sp, Su, Fa) (1-6) HIED604 Problem of the Thesis 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, Su, Fa) A study of institutional and from a teaching, consultation, research, and leadership perspectives.

HIED6023 Independent Study (Sp, Su, Fa) (1-6) Provides students with an opportunity to pursue special study in higher education.

HIED6063 Management Skills for Effective Leadership (Irregular) Development of management skills that enhance leadership includes understanding yourself, managing yourself, team building, personnel selection, group and individual decision-making, problem solving, managing conflict, developing valid performance appraisal systems, and understanding the role of the higher education leader.

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 organizational change as it relates to planning and change in college and university settings.

HIED6323 Design and Evaluation of College Teaching (Irregular) Theory and practice of effective college teaching. Emphasis is placed on preparation and evaluation of instruction.

HIED643V Creative Strategies in College Teaching (Even years, Sp) An examination of traditional and innovative instructional strategies for use in college teaching.

HIED6423 Trends, Issues and Problems in Higher Educa- tion (Odd years, Sp) An in-depth examination of the problems and trends related to the field of higher education.

HIED6563 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; torts; liability; and contracts; and other topics of current interest. Prerequisite: Doctoral students in Higher Education or permission of the instructor.

HIED6593 Leading Change (Irregular) An in-depth examination of leadership, change, and culture in postsecondary education.

HIED6683 Finance and Fiscal Management (Sp) Higher education finance and budgeting practices: problems, issues, trends, and policy issues in higher education.

HIED6683 Governance and Policy Making in Higher Education (Odd years, Fa) An analysis of governance and policy making affecting the control of colleges and universities. Attention is given to policy generation, governing board supervision, and the impact of institutional, political, and regional groups as well as community, state, and federal pressures.

HIED6693 Research Techniques in Higher Education (Irregular) Techniques of research applicable to Higher Education.

HIED674V Internship (Sp, Su, Fa) (1-6) Supervised field experiences in student personnel services, college administration, teaching, institutional research, development, or other areas of college and university work.

HIED699V Seminar (Sp, Su, Fa) (1-4) Series of seminars for students with significant postgraduate work, scholarship, and professional experience in higher education.

HIED700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prereq- uisite: Candidacy. Investigation of the varying courses of modernization in Latin America, covering popular revolution, urban populism and military democracy.

HIST2323 Violence and Conflict in Latin American History (Even years, Fa) This course analyzes the history of Latin America since European conquest through the prism of violence and social change. Using films and literature, as well as historical texts, the course examines themes of nationalism, civil war, banditry, urbaniza- tion, military dictatorships, human rights abuses, and guerrilla insurgencies.

HIST2325 African American History to 1877 (Sp) The course will study the African beginnings, the Caribbean and Latin American influences, and the African American early struggle to survive slavery in the new world, and the continuing social, political, and economi- cal quest to become a first class citizen in American society until Reconstruction, 1492-1877.

HIST2324 African American History Since 1877 (Sp) The course will study the major social, political, and economical issues relating to the African American experience beginning with the late post-Reconstruction period and will include, all of the major personalities and influences in the Civil Rights Movement, from 1877 to the present.

HIST5353 The History of Sub-Saharan Africa (Sp) Sub-Saharan African history from the 18th century to the present, with emphasis on the impact of the slave trade, colonization, Independence, and contemporary issues of the post-colonial period. The course focuses on the role of the ways Africans have changed in the course of history, society, economics, gender, religion, politics, and labor.

HIST2326 The History of the American Indian (Fa) Survey of North American Indian history from their arrival until the present day. Emphasis will be given to the development of Indian tribes, U.S. government policy, and the role of Indians in modern American culture.

HIST2327 The West of the Imagination (Irregular) The changing image of the American West from the pre-Civil War period to the present and how popular impressions have reflected national attitudes and values. Special attention given to the West's portrayal in folklore, literature, art, films, and television.

HIST3383 Arkansas and the Southwest (Sp, Fa) Political, economic, social, and cultural development of Arkansas from the coming of the Indian to the 20th century, with special emphasis on Arkansas as a national and regional component.

HIST3384 Modern Imperialism and Africa (Sp, Fa) Examines the causes, nature, and consequences of modern imperialism. The histories of five different empires are studied and compared to give an overview of the phenomenon.

HIST3453 Modern Terrorism (Irregular) Examines the historical foundations and course of modern terrorism, from the French Revolution to the present. Special attention given to the Irish Republican Army, Baader Meinhoff Gang (Red Army Faction), the American civil rights movement, and globalization.

HIST3473 Palestine and Israel in Modern Times (Irregular) History of 19th-20th Century Palestine, Zionism and the founding of modern Israel, and the Palestine-Israel conflict in local and regional perspectives.

HIST3503 Far East in Modern Times (Irregular) Introduction to fundamental aspects of Chinese, Japanese, Korean, and Vietnam- ese history since about 1800.

HIST3503 World War II (Sp) Study of the causes, conduct and consequences of the Second World War.

HIST3583 The United States and Vietnam, 1945-1975 (Fa) A survey and analysis of the Vietnam War with special emphasis on its impact on American and international society.

HIST3593 The Unraveling of America: Life in the 1960s (Irregular) A study of the main themes and dominant forces shap- ing American history during the 1960s; social and cultural as well as political and economic history are emphasized. Topics include the civil rights movement, the Great Society and the Vietnam War as well as the counterculture, rock music and the re-emergence of feminism.

HIST3923H Honors Colloquium (Irregular) Treats a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in history).

HIST3973H Honors Methods (Sp) A practical introduction to historical research and writing. Examines research methods and current theories of interpreting and evaluating the past. Prepares students for honors thesis development and writing. Required for and restricted to history honors students. Prerequisite: Junior standing.

HIST3973H Special Topics (Sp, Su, Fa) (1-3) Historical topics which are not usually presented in depth in regular courses.

HIST399VH Honors Thesis (Sp, Su, Fa) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of credit.

HIST4003 Greece and the Ancient Near East (Irregular) An introduction to the origins of civilization in the ancient Near East and Greece. Emphasis placed upon the development of agriculture and
The history of the British Isles from the 1707 Act of Union and the political, social, and cultural aspects of the Georgian and Elizabethan years, the 17th Century Revolutions, and the birth of an extended social justice to African Americans during the nation’s history. The course will focus on social, economic, and political history.

HIST4033 Modern Islamic Thought (Odd years, Sp) Examines the history of the Ottoman Empire from the 17th to 18th centuries which focuses on the social transformation of women in the Middle East since the 19th century. Emphasis in political, social, and cultural perspectives. Topics addressed will include westward expansion, slavery, religion, and economic change.

HIST4653 Antebellum America, 1828-1860 (Irregular) Study of the social, political, and economic aspects of the American Civil War period. A general survey of American history since World War II with emphasis on the presidency, reform movements, the Cold War, and cultural developments.

HIST4633 Social and Cultural History of the Modern Middle East (Irregular) An analysis of Middle East history in the 17th-20th centuries which focuses on the social transformation of urban and rural life. Particular emphasis is given to the roles of economics, genealogy, art, and popular culture.

HIST4723 America Between the Wars, 1917-1941 (Irregular) The legal, social, and cultural history of Revolutionary and post-Revolutionary America and the evolution of the new nation, with a particular emphasis upon the empire upon constitutional traditions. 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.

HIST4433 Social and Cultural History of the Modern Middle East (Odd years, Sp) Survey of the major developments in history and development of the civil rights movement in the United States. (Same as AAST 4383)

HIST4383 The American Civil Rights Movement (Irregular) Introduction to the history and development of the civil rights movement in the United States. (Same as AAST 4383)

HIST4436 The American Frontier (Odd years, Fa) American westward expansion and its influence on national institutions and character. Emphasis in the pioneer family and the frontier’s role in shaping American society, culture, economy, and politics. Topics include exploration, the fur trade, the cattle kingdom and the mining farming, and military frontiers.

HIST4437 Mongol & Mamluk Middle East 1250-1520 (Even years, Sp) An examination of significant ideas and institutions in the Middle East from the 13th to the 16th centuries.

HIST4433 Social and Cultural History of the Modern Middle East (Irregular) An analysis of Middle East history in the 17th-20th centuries which focuses on the social transformation of urban and rural life. Particular emphasis is given to the roles of economics, genealogy, art, and popular culture.

HIST4436 The American Frontier (Odd years, Fa) American westward expansion and its influence on national institutions and character. Emphasis in the pioneer family and the frontier’s role in shaping American society, culture, economy, and politics. Topics include exploration, the fur trade, the cattle kingdom and the mining farming, and military frontiers.

HIST4483 Religion in America to 1860 (Irregular) History of religion in early America, primarily from a social and cultural perspective. Topics will include region, social class, growth of institutions, slavery, and religion, and social and cultural perspectives. Topics will include region, social class, growth of institutions, slavery, and religion, and social and cultural perspectives.

HIST4403 America 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 will be on social, economic and political history, and historiography.

HIST4603 U.S. Labor History to 1877 (Odd years, Fa) Examining the changing nature of work in U.S. history from 1607 until 1877 including the ways in which workers—individually and collectively—understand the meanings of their labor and to the ways that notions of class, gender, ethnicity, and race inform these understandings.

HIST4613 Colonial America to 1783 (Irregular) Political, economic, and social history of colonial America from the time of the Treaty of Paris, with limited but not exclusive, emphasis upon Anglo-America.

HIST4623 Revolutionary America, 1730 to 1801 (Irregular) An introduction to the history and development of Revolutionary and post-Revolutionary America and the evolution of the new nation, with a particular emphasis upon the empire upon constitutional traditions. 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.

HIST4633 Social and Cultural History of the Modern Middle East (Odd years, Sp) Survey of the major developments in history and development of the civil rights movement in the United States. (Same as AAST 4383)

HIST4723 America Between the Wars, 1917-1941 (Irregular) The legal, social, and cultural history of Revolutionary and post-Revolutionary America and the evolution of the new nation, with a particular emphasis upon the empire upon constitutional traditions. 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.

HIST4433 Social and Cultural History of the Modern Middle East (Irregular) An analysis of Middle East history in the 17th-20th centuries which focuses on the social transformation of urban and rural life. Particular emphasis is given to the roles of economics, genealogy, art, and popular culture.

HIST4723 America Between the Wars, 1917-1941 (Irregular) The legal, social, and cultural history of Revolutionary and post-Revolutionary America and the evolution of the new nation, with a particular emphasis upon the empire upon constitutional traditions. 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.

HIST4436 The American Frontier (Odd years, Fa) American westward expansion and its influence on national institutions and character. Emphasis in the pioneer family and the frontier’s role in shaping American society, culture, economy, and politics. Topics include exploration, the fur trade, the cattle kingdom and the mining farming, and military frontiers.

HIST4483 Religion in America to 1860 (Irregular) History of religion in early America, primarily from a social and cultural perspective. Topics will include region, social class, growth of institutions, slavery, and religion, and social and cultural perspectives. Topics will include region, social class, growth of institutions, slavery, and religion, and social and cultural perspectives.
relations among allies and adversaries. Post-Cold War scenarios, including war on terrorism.

HIST4253 Modern Mexico (Odd years, Sp) This course examines the history of Mexico from the wars of indepen-
dence to the present. Emphasis will be placed on the turbulent nine-
teenth century and the Mexican Revolution. Themes covered include colonial history, national culture, popular culture, emigration, and relations with the United States.

HIST4793 Colonial India, 1758-1948 (Irregular) Examine the course of Indian history from the 1758 Battle of Plassey to
eventual independence from Great Britain in 1948. Special attention is
given to India’s place within the British Empire, particularly the
East Indian Company, the Indian Mutiny, the Raj, the rise of Gandhi, and India’s independence movement.

HIST4543 History of China to 1644 (Fa) ( Formerly HIST 4313) A history of pre-modern China, including the study of Confucianism, Taoism and Buddhism.

HIST4823 Modern China (Sp) Survey of Chinese culture, soci-
y, government, and economy between 1644 and the present.

HIST4843 Modern Japan (Irregular) (Formerly HIST 4843) Survey of Japanese history since 1589 to the downfall of Tokugawa shogunate through the two world wars to the rise of an economic superpower. Emphasis is placed on Japanese 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 interpretation in the discipline. Emphasizes skills such as argumentation, synthesis, and integration. Students produce a primary-source based research paper. A grade of B or better will satisfy the Fulbright senior writing requirement. Prerequisite: History major: senior standing.

HIST4943 U.S. Labor History, from 1877-present (Even years, Sp) This course will examine the changing nature of work in U.S. history from 1877 until the present. It will pay particular attention to the ways in which individually and collectively workforce understand the meanings of their labor and to the ways that notions of class, gender, ethnicity, and race influence these understandings.

HIST498V Senior Thesis (Sp, Su, Fa) (1-6) Prerequisite: History major; senior standing; permission of instructor.

HIST503V Readings in Latin American History (Irregular) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST506V Readings in European History (Irregular) (1-6) Prerequisite: Graduate standing.

HIST508V Readings in American History (Sp, Su, F) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST508V Research Problems in European History (Sp, Su, F) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST509V Research Problems in American History (Sp, Su, F) (1-6) Prerequisite: Graduate standing.

HIST510V Research Problems in European History (Sp, Su, F) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST517V Readings in Asian History (Irregular) (1-6) Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST519V Readings in Ancient Near Eastern History (Irregular) (1-6) Prerequisite: Graduate standing.

HIST520V Research Problems in Ancient Near Eastern History (Irregular) (1-6) Prerequisite: Graduate standing.

HIST5213 Reading Seminar in Middle Eastern History (Irregular) (1-6) Prerequisite: Graduate standing.

HIST5233 Research 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.

HIST5313 Reading Seminar in Latin American History (Irregular) (1-6) Prerequisite: Graduate standing.

HIST5323 Research Seminar in Latin American History (Irregular) A research seminar for the production of a major research project in selected fields of Latin American History. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST5413 Reading Seminar in African History (Irregular) (3-6) Prerequisites: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST5423 Research Seminar in African History (Irregular) (3-6) Seminar for the production of a major research project in selected fields of African History. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HIST600V Master’s Thesis (Sp, Su, Fa) (1-6) Prerequisite: Graduate standing.

HIST607V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy. May be repeated for up to 18 hours of degree credit.

Health Sciences (HSLC)

HLSL1002 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 programs. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

HLSL114V Readings in Middle Eastern History (Irregular) (1-6) Prerequisite: Graduate standing.

HLSL153 Reading Seminar in British History (Irregular) (3-6) Prerequisites: Graduate standing.

HLSL157V Research Problems in Middle Eastern History (Irregular) Research projects in selected fields of Middle Eastern History. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HLSL163 Research Seminar in British History (Irregular) Research projects in selected fields of British History. May be repeated for up to 6 hours of degree credit.

HLSL191V Readings in Ancient Near Eastern History (Irregular) (1-6) Prerequisite: Graduate standing.

HLSL215V Readings Problems in Middle Eastern History (Irregular) Research projects in selected fields of Middle Eastern History. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

HLSL237V Leadership in Health Promotion (Odd years, Sp) Understanding and practicing the theories of sound mental health and wellness, including 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.

HLSL236V Principles of Mental Health Promotion (odd years, Sp) Understanding and practicing the theories of sound mental health and wellness, including 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.

HLSL236VH Honors 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; understanding of the meaning and consequences of risk.

HLSL236VH 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; understanding of the meaning and consequences of risk.

HLSL237V Teacher Drug Education (Fa) A specific curriculum that is designed 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 educational settings.

HLSL238V 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; understanding of the meaning and consequences of risk.

HLSL238VH Honors 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; understanding of the meaning and consequences of risk.

HLSL237V Teacher Drug Education (Fa) A specific curriculum that is designed 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 educational settings.

HLSL238VH 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; understanding of the meaning and consequences of risk.

HLSL237V Teacher Drug Education (Fa) A specific curriculum that is designed 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 educational settings.

HLSL238VH 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; understanding of the meaning and consequences of risk.

HLSL237V Teacher Drug Education (Fa) A specific curriculum that is designed 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 educational settings.

HLSL238VH 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; understanding of the meaning and consequences of risk.
Horticulture (HORT)

HORT101 Students in the Home Environment (Fa) A course describing health and 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 in the home environment will be emphasized.

HORT2003 Principles of Horticulture (Sp, Fa) A course introducing students to the biological and technologies underlying the propagation, production, handling and use of horticultural crops, turf and ornamentals. Students will be introduced to the various disciplines and commodities of horticulture. The use of plants for the benefit of humankind because of their aesthetic and nutritional value 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.

HORT3003 Introduction to Turfgrass Management (Sp, Fa) An introductory course in turfgrass management emphasizing turfgrass growth, adaptation, and management. Students will be introduced to the various disciplines and commodities of turfgrass. The use of plants for the benefit of humankind because of their aesthetic and nutritional value 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.

HORT4003 Professional Landscape Planning (Even years, Sp) Principles and practice of production and handling of crops commonly grown in controlled environments including flowering containerized herbaceous species, geophytes, annual and perennial bedding plants, hydroponic vegetables and herbs. Prerequisite: HORT 4003.

HORT4004V Horticulture Production Laboratory (Even years, Sp) Laboratory involving hands-on experiments designed to demonstrate principles discussed in the lecture section. Includes field trips. Prerequisite: HORT 4003.

HORT4005 Laboratory in Applied Horticulture (Odd years, Fa) A laboratory course designed to demonstrate principles discussed in the lecture section. Includes field trips. Prerequisite: HORT 4003.

HORT4026 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 such as polyplody, interspecific hybridization and induced mutation. Lecture 3 hours, laboratory 2 hours. Prerequisite: BIOL 2323 and BIOL 2321L and (or ANSC 3123 and CSES 4103 or equivalent).

HORT4033 Principles of Health Education (Irregular) In-depth analysis of the social, biological, and behavioral factors involved in the development of one’s sexual identity. Prerequisite: HORT 1017. A course describing health and 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 in the home environment will be emphasized.

HORT1001 Principles of Horticulture (Sp, Fa) A course introducing students to the biological and technologies underlying the propagation, production, handling and use of horticultural crops, turf and ornamentals. Students will be introduced to the various disciplines and commodities of horticulture. The use of plants for the benefit of humankind because of their aesthetic and nutritional value 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.

Horticulture, Landscape, Turf Science Intern- ship (Odd years, Sp) A supervised practical work experience in a horticulture, landscape design, or turf business or research program to gain professional competence and insight into employment opportunities. May be repeated for up to 6 hours of degree credit.

HORT4703L 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. Prerequisite: HORT 4703.
skills are practiced and encouraged and a work-based situation where skills are tried and implemented as well as assessed. Pre- or Corequisites: HRDV 3113 and HRDV 4113.


HRDV3133 Theories and Principles of 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 settings. Both theoretical and practical applications will be included. Pre- or Corequisites: 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, personnel training 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.

HRDV3403 Employment Law in Human Resource Development (Sp) Emphasizes the legal and ethical issues that cover the major employment laws 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 is essential for the human resource development professional. Prerequisite: Departmental approval.

HRDV3503 Workforce Behavior (Su) The prerequisite for HRDV 450V Experiential Learning, this course examines the psychological processes of the individual through work experiences. Focuses on 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 on the study of individual differences, what they are and how they impact teaching and training of adults. Prerequisite: Departmental approval.

HRDV4133 Theories and Principles of Group Dynamics in HRD (Sp, Fa) This course covers various theories and principles explaining group behaviors and processes underlying facilitation of group adult learning in the workplace. It is designed to equip teachers with knowledge and skills applicable to developing team performance for a competitive organizational advantage. Pre- or Corequisites: HRDV 3213 and HRDV 4113.

HRDV4213 Strategies in Professional Development in HRD (Sp, Fa) Students are encouraged to examine their own learning processes and professional development in terms of the theories presented in the course. Methods and study for self development and change are discussed. Self-directed lifelong learning strategies that ensure continued growth for professional adult educators/human resource development practitioners will be discussed. Pre- or Corequisites: HRDV 3213 and HRDV 4113.

HRDV4223 Theories and Principles of 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/ developing HRD leadership skills and exploring various functions/attributes of leadership and their impact on HRD. Both theoretical and practical applications will be included. Pre- or Corequisites: HRDV 3213 and HRDV 4113.

HRDV440V 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 experiential or occupational learning based on a standardized format as suggested by the Council for the Advancement of Experiential Learning (CAELE). Credit for certain occupational training or professional certifications may also be earned using the American Council on Education (ACE) guidelines. Prerequisite: HRDV 3503. May be repeated for up to 30 hours of degree credit.

HRDV450V Applied HRD in Practice 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 records; and will be expected to 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 in HRD (Su) In an actual business/industrial setting, the student will observe, participate and apply skills regarding adult learning theories and principles in job-related environments and evaluating leaders in the field of adult education; identifying characteristics of adult learners/teachers and evaluating current issues in the field of adult education. Prerequisite: HRDV 4113.

HRDV4623 Applied Theory and Principles of Communication in HRD Practice (Su, Fa) In an actual work setting, the student will apply the theories, principles, concepts and skills studied in the prerequisite course. Prerequisite: HRDV 3133.

HRDV4633 Applied Theories and Principles of Group Dynamics in HRD Practice (Sp, Su) In an actual business or industrial setting, the student will study, observe, participate and apply skills and strategies of "good training." The focus is on need for training, application of learning principles, writing instructional objectives and plans, designing active training methods, using visual aids, working with groups, and evaluating training. Prerequisite: HRDV 3113.

HRDV4643 Applied Theory & Principles of Needs Assessment and Evaluation in HRD Practice (Fa) This course addresses the application of knowledge and acquisition of experience associated with needs assessment and evaluation in human resource development with emphasis on workplace situations. Prerequisite: HRDV 3112.

HRDV4653 Applied Theories and Principles of Group Dynamics in HRD Practice (Sp, Fa) In an actual business or industry setting, the student will apply the theories, principles, concepts and strategies of group dynamics. The course and its activities encourage learners to apply these principles within the work setting as a means of advancing their own careers while assisting their organizations to achieve organizational goals, objectives and resulting competitive advantage. Prerequisite: HRDV 4113.

HRDV4663 Applied Theories and Principles of HRD Leadership in HRD Practice (Sp, Su) This course is designed to guide students through an in depth process of identifying, analyzing, and synthesizing elements related to developing, articulating, and implementing an organizational vision, mission, and strategic plan. The course focuses students on exploring their organization’s strategic development plan. Prerequisite: HRDV 4233.

HRDV4673 Applied Strategies of Professional Development in HRD Practice (Sp, Fa) This course is designed to enhance the student’s ability to identify personal tendencies affecting team performance, promote the application of adult learning principles by encouraging self-directed learning, and increase ethical awareness in the student’s profession. Students will apply concepts from HRDV 4213 Strategies in Professional Development to complete a personal behavioral assessment, develop an individualized personal development plan, and reflect on the role of ethics in their profession. Prerequisite: HRDV 4233.

HRDV4683 Applied HRD in Practice II (Fa) The purpose of this practicum is to implement the Human Resource Development intervention designed in the HRDV 4603 Applied HRD in Practice 1, where students applied the strategies presented and examined in HRDV 3213 Introduction to HRD to identified needs in students’ own organizations. Prerequisite: HRDV 3213 Pre- or Corequisite: HRDV 4053.

HRDV4693 Applied Strategies in HRD Practice (Su) In an actual business/industrial setting, the student will study, observe, participate and apply strategies of "good training." The focus is on the identification, evaluation, and synthesis of planning and conducting training in the workplace. Prerequisite: HRDV 3113.

Humanities (HUMN)

HUMN1114H Honors Roots of Culture to 500 C.E. (Fa) This course addresses the first segment of a four-semester interdisciplinary study of the Asian, early Byzantium, Gothic architecture, and Indian subcontinent. Open to first-year Honors students by invitation only. Corequisite: Drill component.

HUMN1114H Honors Equilibrium of Cultures 500-1600 (Sp) This course addresses the second segment of a four-semester interdisciplinary study of Islamic, early Byzantium, Gothic architecture, and Indian subcontinent. Open to second-year Honors students by invitation only. Corequisite: Lab component.

HUMN2213 Introduction to World Religions (Sp) A survey of the major religions, including— but not limited to—Hinduism, Buddhism, Judaism, Islam, and Christianity.

HUMN3003 Religions of Asia (Sp) This course explores the narrative, ritual, and communal practices of Hinduism, Jainism, Buddhism, Taoism, Confucianism, Shinto, Islam, and Sikhism.

HUMN3513 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 member. Academic credit for up to 6 hours of degree credit.

HUMN425V Honors Colloquium (Irregular) (1-6) An interdisciplinary, value-oriented discussion course. May be repeated for up to 6 hours of degree credit.

HUMN425VW Honors Colloquium (Irregular) (1-6) An interdisciplinary, value-oriented discussion course. May be repeated for up to 6 hours of degree credit.

Industrial Engineering (INEG)

INEG2101 Principles of Industrial Engineering (Fa) Considers the past and present roles of the professional industrial engineer and evaluates future trends. Introduces the basic concepts that comprise the industrial engineer viewing; introduction to general accounting procedures; principles of cost accounting and other aspects of production costs; budgeting, depreciation, taxes, distribution of profits, securities, sources of capital, interpretation of financial statements, and other related topics. Laboratory required. Corequisite: Lab component.

INEG2403 Industrial Cost Analysis (Sp) Use of accounting information in planning and controlling costs. Concepts of engineering costs; general cost accounting; definition and use of product cost; engineering sampling procedures; interpretation of financial statements; and other related topics. Corequisite: Lab component.

INEG313H Engineering Statistics (Sp, Fa) Fundamentals of probability and distribution theory with applications to various branches of engineering; experimental procedures and sample size; statistical decision theory including significance testing and estimation. Drill required. Corequisite: Drill component. Prerequisite: MATH 2564.

INEG313H Engineering Statistics (Sp, Fa) Fundamentals of probability and distribution theory with applications to various branches of engineering; experimental procedures and sample size; statistical decision theory including significance testing and estimation. Drill required. Corequisite: Drill component. Prerequisite: MATH 2564.

INEG3333 Industrial Statistics (Sp, Fa) Application of statistical techniques to industrial problems; relationships between experimental measurements using regression and correlation theory and analysis of variance models; emphasis on inherent variability of production processes; control chart techniques and the use of exponential and Weibull models in reliability analysis; acceptance and sampling procedures. Prerequisite: INEG 3333.

INEG3413 Engineering Economic Analysis (Sp, Fa) Economic aspects of engineering, including current economic problems and the treatment of estimates when evaluating alternative courses of action. Methods of selection and replacement of equipment and break-even points of operation; desirability of new processes or projects where asset life, rate of return on investment, and first, fixed, differential, marginal, and sunk costs must be considered. Corequisite: Drill component. Prerequisite: MATH 2564.

INEG3513 Manufacturing Design and Processes (Fa) Fundamental topics of manufacturing design and processes; the effects of manufacturing processes on product design and cost; engineering design methods as well as product inspection; and quality control. Engineering materials, comprehensive manufacturing processes including metal machining, casting, and forming. Laboratory required. Corequisite: Lab component. Prerequisite: PHYS 2054.
such as the electronics industry, Survey of markets, technologies, multinational corporations, cultures, and customs. Discussions of ethics, social responsibility, object-oriented modeling, and other topics relevant to global engineering practice.

INEG5433 Cost Estimation Models (Irregular) Overview of cost estimation techniques and methodologies applied to manufacturing and service organizations. Emphasis on application and interpretation of results. Topics include cost trees, influence diagrams, weighting methods, value of information, Analytic Hierarchy Process, Bayes Theorem, Monte Carlo simulation, utility theory, risk analysis, group decision making and expert systems. Prerequisite: INEG 3313.

INEG5523 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.

INEG5533 Transportation Logistics (Irregular) Topics in transportation logistics of interest to engineers: routing and location analysis, fleet size and mix, logistics facilities design, applications of Geographic Information Systems (GIS) and Global Positioning System (GPS) technologies to transportation systems modeling and analysis. Prerequisite: INEG 5133.

INEG5543 Distribution Center Design & Operations (Irregular) Introduction to the field of logistics and distribution, as applied to distribution centers (DC). The fundamental areas of facility design and operations (material handling systems) will be covered. Prerequisite: INEG 5133.

INEG5563 Operation Theory I (Fa) Basic solutions and bases in linear equations, matrix version of simplex tableaux, duality and primal dual relationships, complementary slackness, revised simplex, interior point algorithms and improving search strategies. Prerequisite: Graduate standing.

INEG5623 Analysis of Inventory Systems (Irregular) Elements of production and inventory control, economic lot size models, price breaks models using Lagrangian method, deterministic dynamic programming, stochastic periodic and multi-period models, zero and positive lead time models, and continuous review models. Prerequisite: INEG 5313.

INEG5643 Optimization Theory II (Irregular) Classical optimization theory. Lagrangian and Jacobian methods, Kuhn-Tucker theory and constraint qualification, duality in nonlinear problems; separable programming, quadratic programming, geometric programming, stochastic programming, steepest ascent method, convex combinations methods, gradient, recursive search, and golden section method. Prerequisite: INEG 5133.

INEG5653 Modeling and Analysis of Semiconductor Manufacturing (Irregular) Introduction to front end of semiconductor manufacturing operations. Topics include an introduction to wafer processing, factory and equipment capacity modeling, automated material handling, simulation, cost modeling, and production scheduling. Prerequisite: INEG 3313.

INEG5657 Network Design (Irregular) An introduction to the theory and methodology of nonlinear programming. Focus on engineering and management science applications of nonlinear optimization. Both single and multi-variable as well as unconstrained and constrained problems are addressed.

INEG5693 Heuristic Optimization (Irregular) Theory and applications of methodological approaches explicitly addressed to heuristic or approximate optimization of integer and combinatorial models. Prerequisite: INEG 5133.

INEG5713 Advanced Topics in Human Factors Engineering (Irregular) Advanced work in special research topics in man- machine systems. Prerequisite: INEG 4723.

INEG5823 Systems Simulation II (Irregular) Advanced topics in computer simulation including experimental design, simulation optimization, variance reduction, and statistical output analysis techniques for system simulation. Prerequisite: INEG 4623.

INEG5843 Scheduling and Sequencing II (Irregular) An investigation into constructive algorithms and various operations research approaches for solving sequencing and scheduling prob- lems 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 (ISY)

ISYS2263 Introduction to Information Systems (Sp, Fa) This course presents the fundamental concepts used in developing information systems. It provides a framework for students to use throughout their software development coursework. Also includes management of information systems concepts. This course requires no programming background.

Prerequisite: WCOB 1023 and MATH 2053 each with a grade of C or better.

ISYS2393 Business Application Development Fundamentals (Sp) 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 development with active server pages and XML for web applications. Prerequisite: ISYS 2263 or CSCE 2014 with a grade of C or better.

ISYS400H Honors Information Systems Colloquium (Fa) Explores events, concepts and/or new developments in the field of Computer Information Systems and Quantitative Analysis. Prerequisite: Senior standing.

ISYS4143 Current Topics in Computer Information (Irregular) Intensive investigation of selected developments in computer information systems hardware, software, and computer-based systems. Prerequisite: ISYS 3293 or ISYS 4733 or CSCE 1123 with a grade of C or better.

ISYS4233 Seminar in ERP Development (Sp) ERP administration and system development practices. Advanced system support issues related to implementation, configuration and control issues. Prerequisite: ISYS 3293 or ISYS 4733 or CSCE 1123 with a grade of C or better.

ISYS4243 Current Topics in Computer Information (Irregular) Intensive investigation of selected developments in computer information systems hardware, software, and computer-based systems. Prerequisite: ISYS 3293 or ISYS 4733 or CSCE 1123 with a grade of C or better.

ISYS4283 Business Database Systems (Fa) Introduces student to centralized information system design and implementation for business applications. Indepth study of logical systems modeling and computer management of information systems. Prerequisite: WCOB 5223 with a grade of C or better.

ISYS4285 Business Database Systems (Fa) Introduces student to centralized information system design and implementation for business applications. Indepth study of logical systems modeling and computer management of information systems. Prerequisite: WCOB 5223 with a grade of C or better.

ISYS4293 Business Intelligence (Sp) Business intelligence is the process of creating, collecting, and storing information and knowledge from external and internal sources to better support business decisions. We will consider techniques from machine learning, data mining, and information retrieval to extract useful knowledge from data, and consider statistical approaches to data exploration, analysis, or user profiling. Prerequisite: WCOB 1023 with a grade of C or better.

ISYS4333 Object-Oriented Technologies Seminar (Irregu- lar) Provides the student with theory and application of information systems development utilizing object-oriented (OO) technology. Top- ics include object-oriented analysis, design, data modeling, database management systems, and programming. Prerequisite: ISYS 3283 with a grade of C or better.

ISYS4363 Business Project Development (Sp) Review of business applications development for organizations. Prerequisite: ISYS 3283 with a grade of C or better.

ISYS4372 Application Development with Java (Fa) This course covers object-oriented programming concepts and illustrates them via an appropriate object-oriented programming language. Students will be exposed to the design of software objects, creation of graphical user objects, and the use of middleware in constructing an infor- mation system. Prerequisite: ISYS 3283.

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. Prerequisite: ISYS 2263 or CSCE 2014 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 organizations today, the processing of business transactions is done using a transaction processing system. In this course, you will learn the basic concepts and techniques associated with the design and development of information systems. An introduction to object oriented programming is also covered. Prerequisite: ISYS 2263 or CSCE 2014 or ISYS 4453 with a grade of C or better.

ISYS450V Independent Study (Sp, Fa) (1-3) Permits students on individual basis to explore selected topics in data processing and/or Quantitative Analysis.

ISYS500V Global Information Technology Management (Irregular) This course will focus on IT environments around 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 include an in-depth understanding of managing information resources across national borders, time zones, cultures, political philosophies, regulatory regimes, and economic infrastructures. A project will be developed in the latter part of the course. Prerequisite: ISYS 400H with a grade of C or better.

ISYS5111 IT Toolkit & Skills Seminar (Irregular) (0-3) Semi- nar in Information Systems solutions concepts (such as applications development, VE, NET, analysis of problems and design of solutions via application systems) to learning how to use and apply the technologies for developing a relatively realistic business-to-consumer (B2C) e-business site. Students will also learn about Business to Business (B2B) strategies, market exchanges, XML and XML Web services applications. Simple XML Web services will also be created. Prerequisite: ISYS 3293 or ISYS 4733 or CSCE 1123 with a grade of C or better.

ISYS4233 Seminar in ERP Development (Sp) ERP administration and system development practices. Advanced system support issues related to implementation, configuration and control issues. Prerequisite: ISYS 3293 or ISYS 4733 or CSCE 1123 with a grade of C or better.

ISYS4285 Business Database Systems (Fa) Introduces student to centralized information system design and implementation for business applications. Indepth study of logical systems modeling and computer management of information systems. Prerequisite: WCOB 5223 with a grade of C or better.

ISYS4293 Business Intelligence (Sp) Business intelligence is the process of creating, collecting, and storing information and knowledge from external and internal sources to better support business decisions. We will consider techniques from machine learning, data mining, and information retrieval to extract useful knowledge from data, and consider statistical approaches to data exploration, analysis, or user profiling. Prerequisite: WCOB 1023 with a grade of C or better.

ISYS4333 Object-Oriented Technologies Seminar (Irregular-
ISYS5423 Seminar in Systems Development (Fa) Advanced study of structured systems development. Emphasis on strategies and techniques for designing and structuring systems for producing logical systems specifications and for deriving physical systems designs. Coverage of methodologies for dealing with complexity in the development of information systems. Prerequisite: ISYS 5110 (or equivalent).

ISYS5433 Enterprise Systems (Fa) Enterprise Systems comprises the entire class of information technology and systems that support the mission of the company including decision support and business processes. This managerial enterprise systems course focuses on strategic issues of information technology. Students study the various elements and integration of an organization’s business processes; as a result, students gain an understanding and working knowledge of systems used to support these processes and their use in decision making. In addition, students will study concepts and develop skills needed to utilize decision-centric business intelligence and knowledge management applications.

ISYS5453 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. Prerequisite: ISYS 5110 or equivalent.

ISYS5463 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/DBZ. This course provides students with the necessary understanding and working skills to work in this type environment. Pre- or Corequisite: ISYS 5453 (or equivalent) or MIS Director approval. Prerequisite: ISYS 5110 (or equivalent).

ISYS5503 Decision Support Systems (Sp) An analysis of the highest level of information 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. The evaluation and application of tools in problem solving and decision making. Prerequisite: ISYS 5110 (or equivalent).

ISYS5613 Business Applications of Nonparametric Techniques (Sp) (First offered Summer 2002, Formerly COSIS 5613) Business Applications of advanced database concepts include database 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 economic research methods to sampling and experimental design, testing of hypothesis, and using nonparametric tests. Prerequisite: ISYS 5203 or equivalent.

ISYS5683 Data Management Systems (Fa) Investigation and application of advanced database concepts include database administration, database technology, and selection and acquisition of database management systems. Data modeling and system development in a database environment. Pre- or Corequisite: ISYS 5453. Prerequisite: ISYS 5110 (or equivalent).

ISYS5843 Seminar in Business Intelligence and Knowledge Management (Fa) Business intelligence focuses on business intelligence focused on using IT to transform the organization, as competitive strategy, and presented in a way that allows you to play an active role in the management of information technology. Using IT to transform the organization, as competitive strategy, and creating new relationship with other firms is included. Prerequisite: ISYS 5423 and ISYS 5833.

ISYS6011 Graduate Colloquium (Sp, Fa) Presentation and critique of research papers and proposals. Prerequisite: ISYS533 Research Seminar (Sp, Fa) Topical research seminar: emphases on understanding and conducting information systems research. Topics will vary. May be repeated up to 18 hours of degree credit.

ISYS606V Special Problems (Irregular) (1-6) Independent reading and research under supervision of senior staff member. May be repeated up to 6 hours of degree credit.

ISYS6423 Seminar in Causal Modeling (Sp) Exposure to use of causal modeling in current research. Prerequisite: Designated seminar for graduate students with a background in causal modeling. Corequisite: ISYS 5110 (or equivalent).

ISYS700V Doctoral Dissertations (Sp, Su, Fa) (1-18) Prerequisite: Candidacy for the doctoral degree and the consent of the student's graduate advisor. This course is offered in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

ISYS7091 Doctoral Seminar (Sp, Su, Fa) Required for students pursuing the doctoral degree. The intent of the seminar is to provide an opportunity for the development and refinement of communication skills. Prerequisite: Candidacy for the doctoral degree and the consent of the student's graduate advisor. This course is offered in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

ITAL1003 Elementary I (Fa) ITAL1003 Elementary II (Sp) Elementary courses stress correct pronunciation, aural comprehension, and simple speaking ability, and lead to active mastery of basic grammar and limited reading ability. ITAL2003 Intermediate I (Fa) Intermediate courses lead to greater facility in spoken language and to more advanced reading skills. ITAL2013 Intermediate II (Sp) Continued development of basic speaking comprehension, and writing skills and intensive development of reading skills. ITAL3003 Italian Conversational (Fa) Three hours per week of guided conversation practice for the post-intermediate student. Prerequisite. ITAL 1303 or equivalent. ITAL3013 Introduction to Literature (Sp) Development of reading skills and introduction to literary analysis. Prerequisite: ITAL 2013 or equivalent. May be repeated for up to 3 hours of degree credit. ITAL4003 Advanced Italian Conversation (Fa) Conversation practice for advanced undergraduate. Intended to refine language comprehension while providing in-depth understanding of Italian language and culture. Prerequisite: ITAL 3002 and ITAL 3013. ITAL479V Special Investigations (Irregular) (1-6) May be repeated for up to 6 hours of degree credit.

JAPN1003 Elementary Japanese I (Fa) JAPN1013 Elementary Japanese II (Sp) Elementary courses stress correct pronunciation, aural comprehension, and simple speaking ability, and lead to active mastery of basic grammar and limited reading ability. JAPN2002 Intermediate Japanese I (Fa) Intermediate courses lead to greater facility in spoken language and to more advanced reading skills. JAPN2013 Intermediate Japanese II (Sp) Continued development of basic reading comprehension and writing skills and intensive development of reading skills. JAPN2013H Honors Intermediate Japanese II (Sp) Continu- ed development of basic reading comprehension and writing skills and intensive development of reading skills. Prerequisite: JAPN 2003 or equivalent. JAPN2022 Intermediate Conversation I (Fa), (Sp) Supplemental to 2003. Provides 2 hours of guided conversation per week with the objective of building the listening/speaking skills. JAPN2003 Advanced Japanese I (Fa) Introduces more complex forms and structures of the language as well as more Kanji (Chinese Characters) aiming at the improvement of all the skills: speaking, listening, writing and reading. JAPN2003H Honors Advanced Japanese I (Fa) Introduces more complex forms and structures of the language as well as more Kanji (Chinese Characters) aiming at the improvement of all the skills: speaking, listening, writing and reading. JAPN3003H Honors Advanced Japanese II (Sp) Continua- tion of JAPN 3003 with more complex forms and structures of the language as well as more Kanji (Chinese Characters) aiming at the improvement of all the skills: speaking, listening, writing and reading. JAPN3003H Honors Advanced Japanese Conversation (Sp) Conversational practice for advanced learners of Japanese. Designed primarily for students who intend to use Japanese in business and other formal settings. Honorary and humble expressions will be emphasized. Prerequisite: JAPN 3003. JAPN3003H Honors Advanced Japanese Conversation (Fa) Conversational practice for advanced learners of Japanese. Designed primarily for students who intend to use Japanese in business and other formal settings. Honorary and humble expressions will be emphasized. Prerequisite: JAPN 3003.

JAPN3983 Special Studies (Irregular) May be offered in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

JAPN3983H Honors Special Studies (Irregular) May be offered in a subject not specifically covered by courses otherwise listed. May be repeated for up to 6 hours of degree credit.

JOUR1023 Media and Society (Sp, Fa) A survey of mass media (newspaper, radio, TV, magazine, advertising, public relations, photography, etc.) which stresses their importance in today’s society and introduces the student to the various areas in journalism. Recommended for students considering journalism as a major. Prerequisite: Journalism major or department consent.

JOUR1033 Fundamentals of Journalism (Sp, Su, Fa) Introduces students to the skills of observation, critical thinking and concise writing required in all aspects of journalism, as well as to the technology needed in upper-upper-level courses. Prerequisite for grammar and journalistic style. A prerequisite to JOUR 2013, 2033, 2063 and 4143. Corequisite: Lab component. Prerequisite: Journalism major or department consent.

JOUR1033H Honors Fundamentals of Journalism (Sp, Fa) Introduces students to the skills of observation, critical thinking and concise writing required in all aspects of journalism, as well as to the technology needed in upper-upper-level courses. Prerequisite for grammar and journalistic style. A prerequisite to JOUR 2013, 2033, 2063 and 4143. Corequisite: Lab component. Prerequisite: Journalism major or department consent.

JOUR2013H Honors News Reporting I (Sp, Fa) Intensive training in the methods of gathering and writing news. Lecture 2 hours, laboratory 2 hours per week. Prerequisite: JOUR 1003 and JOUR 1003, each with a grade of C or better.

JOUR2013H Honors News Reporting II (Sp, Fa) Intensive training in the methods of gathering and writing news. Lecture 2 hours, laboratory 2 hours per week. Prerequisite: JOUR 1003 and JOUR 1003.

JOUR2031L Broadcast News Reporting I Laboratory (Sp, Fa) Provides experience in basic broadcast news reporting techniques. Laboratory 3 hours per week. Corequisite: JOUR 2032. Prerequisite: JOUR 1003 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. Corequisite: JOUR 2031L. Prerequisite: JOUR 1003 with a grade of C or better.

JOUR2063 Media Technology (Su) Introduction to computer skills required in journalism; focus is training in the major visual and performing arts. This course also discusses western influences, culturally specific expressions in Japanese business correspondence. Prerequisite: JAPN 2013 or equivalent Japanese proficiency. JAPN3333H Honors Business Writing in Japanese (Sp) This course aims to familiarize the students with formats, vocabulary, and culturally specific expressions in Japanese business correspondence. Prerequisite: JAPN 2013 or equivalent Japanese proficiency.
Course Descriptions

JOUR4303 Print News Writing (Sp, Fa) Instructional and writing practice to develop the professional-level writing skills required of public relations practitioners. Emphasizes different approaches required for different audiences and media. Prerequisite: JOUR 1033 with a grade of B or better and JOUR 3732 and JOUR 3743, each with a grade of B or better. 

JOUR4333 Ethics in Journalism (Irregular) Critical examination of specific ethical problems confronting professionals in all areas of mass communications. Reading and writing assignments are designed to upgrade students’ awareness of ethics and their social responsibilities. Prerequisite: Junior standing.

JOUR4413 Broadcast Advertising and Sales (Fa) The creation of advertising campaigns for the broadcast media and techniques involved in the presentation of these campaigns to prospective media buyers. Emphasizes understanding of the broadcast media and its role in society. Prerequisite: JOUR 3732 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 3732 and JOUR 3743.

JOUR4453 Media Strategy & Planning (Sp) Emphasizes the development and execution of media strategies, tactics, and planning. Prerequisite: A grade of B or better in both JOUR 3732 and JOUR 3743.

JOUR4463 Campaigns (Sp, Fa) Applying advertising principles and techniques to preparation of a complete campaign: determining agency responsibility and objectives; research; media mix, and creative strategy. Emphasis also given to campaign presentation delivery, utilizing audio and visual techniques. Prerequisites: JOUR 3732 and JOUR 3743 and JOUR 4442 and JOUR 4453.

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) Instruction with lab work in editing and producing various types of magazines. Course includes magazine design, selecting and editing stories and photographs, laying out the story and photos pages, and other mechanical processes. Lecture 2 hours, laboratory 2 hours per week.

JOUR4863 Television News Reporting I (Sp, Fa) Includes the specialized knowledge and skills needed in field reporting, anchoring, writing, and producing news for commercial television. Also incorporates video editing, tape editing. Lab component arranged. Corequisite: Lab component. Prerequisite: JOUR 3072 and JOUR 3071L.

JOUR4873 Television News Reporting II (Sp, Fa) Continuation of JOUR 4863. Laboratory component arranged. Prerequisite: JOUR 4863. 

JOUR4883 Advanced Television News Production (Irregular) Continuation of JOUR 4873. Students prepare and present television newscasts for air. Laboratory component arranged. Corequisite: Lab component. Prerequisite: JOUR 4873.

JOUR4903 Community Journalism (Sp) This three-hour course will blend student reporting and editing skills with instruction on how regional newspapers select and present news to a local audience. This course will instruct students in deciding news stories for public regional readers, how those stories can best be written and displayed. The semester goal is to publish a paper. Prerequisite: Junior standing.

JOUR498V Journalism Writing Requirement (Sp, Su, Fa) Research. Prerequisite: Graduate standing or honors program standing.

JOUR5033 Critical and Opinion Writing and Commentary (Irregular) Experience in writing and analyzing columns, editorials, criticism, and other forms of opinion and commentary in the media and in examining the media’s role as a forum for opinion and comments and in examining the role of the media in society. Prerequisite: JOUR 4303.

JOUR5043 Research Methods in Journalism (Sp, Su, Fa) Research methods of utility in journalism. Emphasis on survey research, electronic data base searching, and traditional library research. Prerequisite: graduate standing or honors program standing.

JOUR5053 Propaganda and Public Opinion (Irregular) Examines and analyzes the means of influencing and measuring public opinion. Emphasis on survey research and polling of the mass media and their social responsibilities. Prerequisite: Graduate standing.

JOUR5183 International Mass Communications (Sp, Su, Fa) Examination of mass communications role in international communications, the role of the media in coverage of international affairs, and the impact of technological changes on mass communications. Prerequisite: JOUR 1033.

JOUR5193 Professional Journalism Seminar (Irregular) Examination of complex problems encountered by professional journalists with focus on research and analysis of the role of journalism in social, economic, and political developments. May be repeated for up to 6 hours of degree credit.

JOUR5233 Media and Public Policy (Irregular) Focuses on the interaction between media, politics, government, and public relations and its impact on the influence of the media on public policy agenda.

JOUR5313 Literature of Journalism (Irregular) An indepth study of superior works of non-fiction journalism, past and present. Includes assignments written by Daniel DeFoe to John Fowles from 1690 to 1980. Prerequisite: BIOL 2443 and BIOL 2441L.

JOUR5323 Documentary Production I (Sp) In-depth study of documentary film as non-fiction, long form journalism. Covers subject, funding, research and development, pre-production planning, field production, talent, music, post production, promotion, broadcast and distribution. Required trip to Hot Springs Documentary Film Festival.

JOUR5333 Documentary Production II (Sp) A continuation of JOUR 5323. Documentary Production I. Students photograph, write, and edit a documentary begun in the fall semester. Prerequisite: JOUR 5323.

JOUR600V Master’s Thesis (Sp, Su, Fa) (1-6) Required of all M.A. journalism students.

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.

KINS2293 Prevention and Care of Athletic Injuries (Irregular) Introduction to the prevention and care of athletic related injuries. Includes athletic injury recognition and management. Prerequisite: BIOL 2443 and BIOL 2441L.

KINS2313 Seminar in Exercise Science (Sp) This class will cover special topics for the Exercise Science students in preparation for entry into the profession. In addition to specific topics, students will prepare their resumes and make a formal presentation.

KINS2315 Exercise Physiological Testing including the effects of exercise on the physiology of the systems of the body. The exploration includes effects during, immediately after, and as long term results of work and exercise. Prerequisite: BIOL 2213 and BIOL 2211L.

KINS3153H Honors Exercise Physiology (Sp, Su, Fa) Examination of effects of exercise on the physiology of the systems of the body. The exploration includes effects during, immediately after, and as long term results of work and exercise. Prerequisite: BIOL 2213 and BIOL 2211L.

KINS3155 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 Teacher Education majors. Prerequisite: BIOL 2443 and BIOL 2441L, and KINS 2223, or K-12 physical education majors.

KINS3163H Honors 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 Teacher Education majors. Prerequisite: BIOL 2443 and BIOL 2441L and KINS 2223, or K-12 physical education majors.

KINS3353 Mechanics of Human Movement (Sp, Su, Fa) An introduction to basic analysis of motor skills. No credit given toward major in Zoology. Prerequisite: BIOL 2443 and BIOL 2441L. (Same as BIOL 3353)
KINS5334 Honors Exercise Applications for Special Populations (Fa) The study of the effects of exercise, exercise training, and other stressors in special groups. A detailed study of the biomechanical and physiological effects of exercise on the elderly, the diabetic, the post-coronary, and the individual with functional limitations. Prerequisite: KINS 3353 and KINS 3533.

KINS4903 Exercise Applications for Special Populations (Fa) The study of the effects of exercise, exercise training, and other stressors in special groups. A detailed study of the biomechanical and physiological effects of exercise on the elderly, the diabetic, the post-coronary, and the individual with functional limitations. Prerequisite: KINS 3353 and KINS 3533.

KINS3373 Philosophical/Sociocultural Impact on Exercise (Fa) A study of the philosophical and sociocultural aspects of physical activity and exercise. Prerequisite: KINS 2341L. (Same as BIOL 3353)

KINS5523 Cardiovascular Function in Exercise (Fa) Study of the effects of exercise training and other stressors on the cardiovascular system. Detailed study of the components of exercise training programs through supervised field experiences. Prerequisite: KINS 5513 or KINS 5523.

KINS453 Therapeutic Modalities in Athletic Training (Fa) Concepts and techniques used to diagnose athletic injuries. Modalities covered are classified as thermal agents, electrical agents, or mechanical agents. Emphasis is placed on their physiological effects, therapeutic indications (and contraindications), and clinical application. Prerequisite: Admission to graduate athletic training program.

KINS4523 Medical Conditions in Athletic Training (Fa) This course will provide a collection of knowledge, skills, and values that the entry-level certified athletic trainer must possess to recognize, treat, and refer, when appropriate, the general medical conditions and disabilities of athletes and others involved in physical activity. Prerequisite: Admission to the graduate athletic training program or permission of instructor.

KINS4903 Internship in Exercise Science (Sp, Fa) Provides opportunities for students in Exercise Science to gain experience in clinics, fitness centers, athletic training facilities or related settings. Enrollment is limited to students in exercise science having taken KINS 3353 and KINS 3533. Prerequisite: KINS 3353 and KINS 3533. 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 athletic preventive devices are studied. Prerequisite: Admission to the graduate program in athletic training.

KINS5222 Athletic Training Clinical II - Evaluation Lower Extremity (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, and reinforce the evaluation skills of gait, lower extremity, and spine/pelvis. Prerequisite: KINS 5212.

KINS5332 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 upper extremities, head, neck, and posture. Prerequisite: KINS 5222.

KINS5242 Athletic Training Clinical IV - Emergency Procedures/Mobility 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, and reinforce techniques and applications of therapeutic exercise and rehabilitation. Prerequisite: KINS 5242.

KINS5262 Athletic Training Clinical VI - Athletic Training Seminar 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 course validating the athletic training clinical proficiencies and prepare students for the NATABOC certification exam and future employment. Prerequisite: KINS 5252.

KINS5323 Biomechanics II (Fa) Interested to serve as an introduction to biomechanics and focuses on scientific principles involved in understanding and analyzing human motion.

KINS333 Instrumentation in Biomechanics (Odd years, Sp) This application oriented course is dedicated to data collection for sports analysis. Provides valuable information on instrumentation used specifically in biomechanics. Prerequisite: KINS 5223.

KINS3365 Evaluation Techniques of Athletes 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.

KINS3373 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.

KINS423 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.

KINS453 Therapeutic Modalities in Athletic Training (Fa) Concepts and techniques used to diagnose athletic injuries. Modalities covered are classified as thermal agents, electrical agents, or mechanical agents. Emphasis is placed on their physiological effects, therapeutic indications (and contraindications), and clinical application. Prerequisite: Admission to graduate athletic training program.

KINS443 Therapeutic Exercise and Rehabilitation of Athletic Injuries (Fa) A systematic approach to exercise program development, including indications and contraindications of exercise, and progression as related to athletic injury, prevention, and return to play guidelines. Prerequisite: Admission to graduate athletic training program.

KINS4773 Performance and Drugs (Sp) The pharmacological 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: BIL 2213 and BIL 2221, or equivalent.

KINS488V Internship Research (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.

KINS5343 Physiology of Exercise II (Even years, Sp) Analysis of human movement with emphasis on sports skills by application of principles of anatomy, kinesiology, and cinemagraphical analysis. Prerequisite: KINS 5323.

KINS5433 Physiology of Exercise I (Odd years, Su) Detailed study of the body systems affected by exercise, the functions of these systems during exercise, the effects of age, sex, body type, and nutrition on capacity for exercise, the techniques of assessing work capacity, and a critical analysis of research literature in this area.

KINS674V Internship I (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) Minikin’s Landscape Architecture Studies urban and rural outdoor spaces and their aesthetic and cultural values. The origins of the environmental/conservation 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 space.

LARC1011 Leadership by Design I (Fa) Introduces time management, study strategies, promotes solutions for maintaining personal health, and develops communication and leadership skills intended to benefit education, career, and the community. Corequisite: LARC 1011.

LARC1211 Introduction to Landscape Architecture I (Fa) This course is an introductory interdisciplinary course to basic principles of design, the natural landscape, urbanism, and rural outdoor spaces and their aesthetic and cultural values. The origins of the environmental/conservation 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 space.

LARC1221 Introduction to Landscape Architecture II (Sp) Theoretical, formal, and constructive principles and their impact in the design discipline, methodology, and techniques in relation to the intellectual and philosophical foundations of landscape architecture. Lecture 1 hour per week. Corequisite: LARC 1211.

LARC1222 Leadership By Design II (Sp) Introduces time management, study strategies, promotes solutions for maintaining personal health, and develops communication and leadership skills intended to benefit education, career, and the community. Continuation of LARC 1211.

LARC1315 Landscape Architecture Design I (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.

LARC1325 Landscape Architecture Design II (Sp) 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 supporting principles. Continued drawing exercises and analysis graphics leading to design conceptualization. Studio and lecture. Corequisite: LARC 1211 and LARC 1212.

LARC1326 Landscape Architecture Design III (Fa) Theoretical, formal, and constructive principles and their impact in the design discipline, methodological and technical principles in relation to the intellectual and philosophical foundations of landscape architecture. Lecture 1 hour per week. Corequisite: LARC 1315 and LARC 1212.

LARC1315 Landscape Architecture Design I (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.

LARC1325 Landscape Architecture Design II (Sp) 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 supporting principles. Continued drawing exercises and analysis graphics leading to design conceptualization. Studio and lecture. Corequisite: LARC 1211.

LARC1326 Landscape Architecture Design III (Fa) Theoretical, formal, and constructive principles and their impact in the design discipline, methodological and technical principles in relation to the intellectual and philosophical foundations of landscape architecture. Lecture 1 hour per week. Corequisite: LARC 1315 and LARC 1212.

LARC1315 Landscape Architecture Design I (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.

LARC1325 Landscape Architecture Design II (Sp) 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 supporting principles. Continued drawing exercises and analysis graphics leading to design conceptualization. Studio and lecture. Corequisite: LARC 1211.
Reinforcement of design principles and organization systems applied to small scale design projects. Studio and lecture. Prerequisite: LARC 2721 and LARC 3515.

LARC2346 Landscape Architecture Design IV (Sp) (Formerly LARC 3345) Expansion of abilities to analyze existing conditions of site and develop methods for interpreting and synthesizing information and converting it into spatial, urban form design propositions. Emphasis on design form and the use of meaning and landscape narrative applied to increased scale projects within a larger or more complex context. Studio and lecture. Prerequisite: LARC 2336 and LARC 3213.

LARC2714 Landscape Architecture Construction I (Sp) (Grading) Introduction to landscape architectural construction with an emphasis on grading, earthwork computations, and technical drawing. Prerequisite: Familiarity with 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.

LARC3368 Landscape Architecture Design VI (Sp) (Formerly LARC 4368) Investigation of ecological determinism, historic and contemporary planning, and sustainable design as distinct approaches to landscape architecture. Studio and lecture. Prerequisite: LARC 3368.

LARC3368H Honors Landscape Architecture Design VI (Sp) Investigation of ecological determinism, historic and contemporary planning, and sustainable design as distinct approaches to landscape architecture. Studio and lecture. Prerequisite: LARC 3366 and LARC 4413.

LARC4376H Honors Landscape Architecture Design VII (Fa) 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 3413 and LARC 3821.

LATN2003 Petronius’ Satyricon (Fa) Reading of selections from ancient authors lead to basic reading ability. Prerequisite: LARC 2721.

LATN4003 Latin American Studies (Fa) 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 301)

LATN4013 Latin American Literature in Translation (Irregular) This course introduces the rich cultural diversity and sociopolitical complexity of Latin America, through the exploration of outstanding and representative examples of the region’s modern literature.

LATN4999V Honors Thesis (Sp, Su, Fo) (1-6) Prerequisite: Latin studies.

LARC5613 Landscape Architectural Practice and Project Management (Sp) 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)

LARC2383C Critical Landscape Studies (Sp) The examination of landscape forms, and their historic and evolutionary development. Includes study of cultural, political, and site context influences. Required field trip component of study abroad. Prerequisite: LARC 3413 and LARC 3821.

LARC4213 Urban Form Studies (Su) The examination of urban, village, and suburban form and its influencing forces. Includes study of cultural forces, technological developments, and physical shape, scale, and materials that define urban areas. Required field trip component of study abroad. Prerequisite: LARC 3413 and LARC 3821.

LATN4036 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN4043 Latin American Studies Colloquium (Fa) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.

LATN5003 Latin American Studies Colloquium (Sp) An interdisciplinary colloquium with an annual change in subject of investigation, required of all Latin American studies majors. Prerequisite: Sophomore standing for Latin American studies majors and honors students. May be repeated for up to 6 hours of degree credit.
LATN475V Special Investigations (Irregular) (1-6)
LATN653 Special Latin (Latin) (1-6) Selections from medieval writers from the 4th to the 17th century. Prerequisite: LATN 3003 or equivalent. May be repeated for up to 12 hours of degree credit.

LATN575V Special Investigations (Irregular) (1-6) Concerned with the legal steps through which a criminal proceeding passes, commencing with the initial investigation of a crime and concluding with the release of the defendant. Does not deal exclusively with constitutional problems, but where appropriate, suggestions for reform or change are made. Recent Supreme Court decisions receive special emphasis. Criminal Procedure does not deal with criminal tactics or with many of the special problems relating to the introduction of evidence at the trial. LAWW2402 Criminal Procedure (Sp, Fa) Study of the process of civil litigations from such preliminary matters as court selection and jurisdiction to appeal and collateral attack of final judgments. Some attempt is given to cover the antecedents of modern procedure; and where appropriate, suggestions for reform are developed in class discussion. Emphasis is on the Federal Rules of Criminal Procedure and on code pleading and common law procedure used in state court systems.

LAWW2494 Business Organizations (Sp, Su, Fa) Course is constructed around different forms of business organizations, with emphasis on agency and partnership law, and corporation law.

LAWW4442 Law & Accounting (Irregular) Study of basic accounting principles and their importance to attorneys engaged in business related activities. Topics covered include the fundamental accounting equation, the nature of accrual accounting, understanding financial statements, and accounting for assets and liabilities. Also a review of basic principles associated with financial statement analysis and valuation principles. Intended for students with little or no business training, and may not be taken for credit by students who have previously earned or more hours of undergraduate or graduate credit in accounting courses.

LAWW4993 Pre-Trial Practice (Sp, Su, Fa) Develops fundamental lawyer’s skills using role-play in simulation exercises that are videotaped and critiqued. Focuses on development of case theory, fact gathering, use of competent expert witnesses, and use of pre-trial site. Successful completion of Criminal Procedure I, Criminal Procedure II, and Criminal Procedure.

LAWW500V Special Topics (Irregular) (1-18) 18 hours of degree credit. LAWW5013 Professional Responsibility (Irregular) Role of the lawyer as citizen, government official, and public servant; relationship to the society of the individual lawyer and the profession as a whole; ethical problems of the profession; representation of the unpopular cause and the desirable client, lawyers’ obligation to law reform; lawyer and the press; the lawyer in public service; the aspects of law office management.

LAWW5023 Remedies (Irregular) Covers equity (jurisdiction and powers of courts of equity, injunctions, including adequacy of legal remedies, balancing of equities, interests protected, and defenses), damages (compensatory, exemplary, and nominal damages, direct and consequential damages; mitigation; special application in contract and tort actions) and restitution (relief afforded by the judicial process). Some special problems will be discussed. Certain aspects of land use controls explored briefly.

LAWW5043 Property I (Sp, Su, Fa) Emphasis is on real property. Basic concepts are covered, including property rights in lost and found articles (general property concepts), types and historical origins of estates, and other interests in land. Property transfer techniques, such as gifts, leases (landlord and tenant) and the sale of land are also considered. Land transfer techniques, including the land sale contract, the deed, the recording system, and methods of real property succession will be discussed. Certain aspects of land use controls explored briefly.

LAWW5073 Domestic Relations (Irregular) Devoted primarily to the problems generated by family relationships. There is a large section on formation and dissolution of marriage. Substantial time is also given to paternity and legitimacy, obligations toward and of children, custody, adoption, guardianship, general property law as it is affected by family relationships, and divorce and custody in the federal system (focusing primarily on enforceability of degrees in one state by courts sitting in another state).

LAWW5083 First Amendment (Irregular) An intensive examination of the legal issues arising under the First Amendment to the United States Constitution, with an emphasis on basic free speech doctrines and the doctrines posed by interplay between the free exercise and establishment clauses.

LAWW5093 Solo Practice Planning (Irregular) Combines elements of professional responsibility and law practice management. This course will satisfy the skills requirement.

LAWW5114 Constitutional Law (Irregular) An introduction to the basic principles of constitutional law and to current constitutional doctrines as found in the structure of the federal system and on the rights of individuals under the Due Process and Equal Protection clauses of the Fifth and Fourteenth Amendments.

LAWW5133 Real Estate Transactions (Sp, Su, Fa) Focuses on real estate transfer, real estate finance and real estate development. Covers the law relating to the sale of land and the effects of various interests (e.g., dower and suberit) on the due process and equal protection clauses of the United States Constitution.

LAWW5136 Administrative Law (Sp, Su, Fa) Course is con- cerned with federal, state, and local administrative processes. Considers the origin and constitutional basis for the administrative process; executive and legislative controls with particular emphasis on the judicial control of the administrative process (delegations, presidential 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 deem; duty to settle; policy limits; defenses on the coverage side; application of the policy; insurance marketing; insurable interests; 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 legations. These include organization and categorization of information, definitions, testing of substantive provisions for completeness and consequences, and choices and precision of language.

LAWW5203 Discrimination in Employment (Irregular) An examination of the 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 fed- eral law, this course is given to employment discrimination in private sector.

LAWW5213 Business Planning (Irregular) Synthesis of legal principles dealing with taxation and form of business organizations to provide guidance in choosing form and operating business entities.

LAWW5223 Negotiations (Irregular) The course will provide instruction in professional skills related to various responsibilities which lawyers are called upon to meet, such as trial and appellate advocacy, alternate methods of dispute resolution, counseling, interviewing, negotiating, problem solving, fact investigation, organization and management of legal work, and drafting, and in ana- lytical processes for applying those skills in ethical fashion. Course will satisfy the skills requirement.

LAWW5233 Interviewing and Counseling (Irregular) Course provides instruction in practical aspects of client representa- tion such as drafting, interviewing, counseling, fact gathering, negotiation, and advocacy, and in analytical processes for applying those skills in ethical fashion. In addition to teaching theory attached to skills, the course provides students with practice in these areas through the use of simulated client problems. Course satisfies skills requirement.

LAWW5253 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. Course will examine laws relating to such business and commercial torts as appropriation 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 negotiable instruments.

LAWW532V Election Law (Irregular) (1-3)

LAWW5323 Securities Regulation (Sp, Su, Fa) Regulation of issuance of and trading in stocks, bonds and other security by federal and state agencies, with particular reference to the SEC. Not offered every year.

LAWW5344 Decedent’s Estates (Sp, Su, Fa)

LAWW5513 Labor Relations in the Private Sector (Sp, Su, Fa) The right to organize: organization of labor unions; strikes; pick- ing; boycotts; collective bargaining; collective labor agreements and their enforcement; unfair labor practices by employers and by unions; the union member and his union; state labor relations legislation; the National Labor Relations Act and the Labor Management Relations Act. Not offered every year.

LAWW5554 Labor Arbitration and Mediation (Sp, Su, Fa) Study of Article 9 of the Uniform Commercial Code and of the remedies of unschooled creditors.

LAWW6013 Alternative Dispute Resolution (Sp, Su, Fa) Dealing with the alternative to formal trial process to obtain redress of types of disputes. The alternatives considered include negotiation, mediation and conciliation, arbitration, “rent-a-judge,” and other special procedures. Areas of application include contract and tort
disputes, community problems, labor relations, and medical practice controversies. This course will satisfy the skills requirement.

LAWW6103 Jurisprudence (Sp, Su, Fa) (1-3) Independent legal research conducted under the supervision of faculty members. Ordinarily a student may not accumulate more than two semester hours of credit for Independent Legal Research. This course is offered only by special permission of the dean, who in exceptional circumstances may approve a cumulative maximum credit of three semester hours of credit for Independent Legal Research.

LAWW6193 Social Legislation (Sp, Su, Fa) (1-3) Topics covered usually include constitutional limits on the jurisdiction of Federal courts as well as limitations imposed by Congress. The relations between state courts are problems in diversity and Federal questions. Antitrust litigation is studied, and if time permits, attention is given to venue and related problems.

LAWW6203 Trial Advocacy (Sp, Su, Fa) An introduction to actual trial work and trial techniques through simulated exercises and the conduct of a mock trial. This course will satisfy the skills requirement.

LAWW6213 Product Liability (Sp, Su, Fa) An intensive study of the area including a review of the theories of liability; the concepts of product and defect; potential defendants; defenses; problems of proof and liability; and the conduct of a mock trial. This course will satisfy the skills requirement.

LAWW6233 Federal Income Tax of Individuals (Sp, Su, Fa) Fundamentals of the federal taxation of individuals. Topics covered include gross income, deductions, assignments of income, basis, taxation of property transactions, and tax accounting.

LAWW6243 Federal Estate and Gift Taxation (Sp, Su, Fa) Fundamentals of the federal estate and gift transfer tax system. Topics covered include the determination of gifts for tax purposes, amounts included in decedents’ gross estates, valuation, deductions and credits.

LAWW6253 Federal Income Taxation of Businesses (Sp, Su, Fa) Focus on tax issues in business formation, operation, distributions, and liquidations. Prerequisite: LAW 6233

LAWW6262 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 incapacity; Medicaid, income tax, and tax transfer considerations in small and large estates; gift techniques; 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, previous coursework in federal income tax principles is required prior to the successful completion of either Decedents’ Estates or Federal Estate and Gift Taxation.

LAWW6289 Advanced Corporations (Irregular) (1-4) Comparative analysis of business structures and the regulatory environment of corporate laws; the power of corporate management, corporate control, shareholder rights, shares, dividends, derivative suits, fundamental changes and dissolution.

LAWW6303 WTO, NAFTA, and EU Law (Irregular) The problem of doing business abroad considered from the standpoint of the regulations of foreign trade and direct investment.

LAWW632V Poverty Law: Theory and Practice (Irregular) (1-6) History and poverty law and the constitutional requirements for such programs. Legal and administrative characteristics of major American income-maintenance programs. Topics include the structure of programs, discretion, the protections of clients, social action, and the administrative process.

LAWW633V Intellectual Property (Irregular) (2-3) This course involves an introductory survey of topics in intellectual property, including copyright, trademark, patent, and unfair competition issues. If time permits, the course may also cover certain areas of e-commerce.

LAWW6334 Conflict Resolution (Irregular) Explores 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/discussion on theory and practice will be followed by student simulations. Designed for second and third year law students.

LAWW6366 Immigration and Integration (Irregular) Immigration Clinic will provide opportunities for students preparing for a career in immigration law or general practice by developing skills that are critical in legal practice through an experiential learning model. Working directly under the supervision of an attorney, students will represent clients in the immigration courts.

LAWW6367 Social Security Benefits (Irregular) Claims that involve complex issues related to social security law.

LAWW6373 Legal Clinic (Federal Practice) (Sp, Su, Fa) Students receive legal clinical experiences in federal courts and before federal administrative agencies. Although the particular experiences vary, Chapter 7 (asset) bankruptcies and farm foreclosures are often emphasized.

LAWW6383 General Practice Clinic (Su) (First Offered Summer 2002) 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 investigating, counseling, negotiation, pleading and discovery practice, and trial advocacy. This course offers students a practical 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, LAWV 4713, LAWW 6903, and LAWW 5013; and qualifying for Rule XV practice.

LAWW6383 Legal Clinic (Transnational) (Irregular) Students receive clinical legal experience counseling and representing non-profit organizations serving Northwest Arkansas in a wide range of non-litigation business law matters. Services include startup, sourcing, obtaining federal and state permits, enforcement of business form, purchase and lease of real and personal property, employment and labor law issues, and general contract negotiation, drafting and execution. In addition, students prepare and participate in workshops or on long-term projects for non-profit organizations. Legal Clinic Faculty supervise and review the student attorney’s work, and provide personal feedback to the individual students. Prerequisite: Qualification for Rule XV practice.

LAWW6403 Land Use (Sp, Su, Fa) Covers public land use control such as zoning, subdivision regulations, and eminent domain (including private property rights, takings, and inverse condemnations) and emphasizes location planning at different levels.

LAWW6433 Legal Clinic: Innocence Project (Irregular) This clinic works in conjunction with the Innocence Project, Arkansas to provide pro bono representation to individuals committed to the Arkansas Department of Corrections where available evidence establishes proof of the client’s actual innocence. Students are responsible for all aspects of the representation including: case review, investigation, development of law and expert testimony, pleading, briefing, discovery, and assistance in court proceedings.

LAWW6434 American Legal History (Irregular) An examination for themes in American legal history with special emphasis on the origins and meaning of the United States Constitution. Various topics will be explored in the light of the original understandings, developments over time, and current interpretations by the courts.

LAWW6473 Legal Clinic (Criminal Prosecution) (Sp) Students in this course will have the opportunity to extend and refine their lawyering skills, knowledge of substantive law, and mastery of criminal procedure through prosecution of misdemeanor crimes on behalf of the State in Municipal Court. Students are fully responsible for the cases assigned to them. Their responsibilities include assessing the charges and investigation of law enforcement, interviewing witnesses, conducting preliminary hearings, evaluating cases for an agreed upon resolution, negotiating with defense counsel and pro se defendants, responding to suppression and other defense motions, trial preparation, and trying cases to the court. The preparation and performance of student attorneys is supervised by clinic faculty who provide personal feedback to the individual students. Prerequisite: Unless waived by the instructor, prerequisites for taking the course shall be a cumulative grade point average of 2.00; the successful completion of Criminal Procedure I, Civil Procedure II, Criminal Procedure, Evidence, and Professional Responsibility; and qualifying for Rule XV practice.

LAWW6513 Immigration Law and Policy (Sp, Su, Fa) Study of immigration and nationality, including exclusion and deportation, political asylum and refugee status; visa allocation and distribution; labor certification; and naturalization and citizenship. It is recommended that the student have taken Administrative Law before enrolling.

LAWW6523 Employment Law (Sp, Su, Fa) An overview of the law governing various aspects of the employment relationship, both statutory and common law. Covers the establishment and parameters of employment, the security of the worker, employer’s rights, and terminations.

LAWW6613 Bankruptcy (Sp, Su, Fa) Study of insolvency law, with particular emphasis on federal bankruptcy law.

LAWW6623 Sentencing and Post-Conviction Remedies (Sp, Su, Fa) Law, theory, and practice of sentencing and post-conviction remedies.

LAWW6633 Advanced Criminal Procedure (Sp) This course focuses on prosecuting crime. Principal topics include: the prosecutor’s decision to charge, the role of defense counsel, initial appearance, bail and pretrial release, grand juries and preliminary hearings, discovery, guilty pleas and plea bargaining, speedy trial, double jeopardy, trials and pretrial motions, sentencing and post-conviction remedies. Prerequisite: LAW 4173.

LAWW6713 Judicial Externship (Sp, Su, Fa) Judicial Externship is an elective internship for second and third year students. Externs will report to and be under direct supervision of a judge from the federal district court, the bankruptcy court, or a circuit court approved by the externship coordinator. Externs’ duties may be determined by the supervising judge and may include work on assignments, research, preparation of memoranda, and consultation with full-time law clerks.

LAWW6722 Terrorism, National Security and Human Rights (Irregular) International law issues relating to protection
of human rights. Research papers will satisfy upper-level writing requirement.

LAWW7005 Juvenile Justice Internship (Irregular) Juvenile Justice Internship is an elective internship for third year law students. Prerequisites for participating are: successful completion of the Criminal Defense Clinic or the General Practice Clinic; certification under Rule 49; and approval of the Governing Administrative Bar; and the advance approval of the faculty member assigned to supervise the internship.

LAWW8180 Corporate Counsel Internship (Irregular) Elective internship for third year students. Available only to a student who has successfully completed 48 hours of law credit and has earned a grade of C or higher in Professional Responsibility. Students must disclose whether they have been subject of any prior honor code proceeding, including conviction of any penalty. Externs must report to and be supervised by either a chief of staff or deputy chief of staff. Duties shall be determined by the field supervisor. Duties may include observation of and assistance in day-to-day operations, special projects, work with federal or state agencies, communications with constituents and other duties as assigned. Prerequisite: 48 hours law credit and grade of C or higher in Professional Responsibility.

LAWW8102 Environmental Law (Irregular) Students to reflect and self-evaluate their work. Prerequisite: LAWW 6943.

LAWW7075 Mediation in Practice (Irregular) This three-credit course will train students to mediate disputes assigned to the North- west Arkansas Dependency-Neglect-Families In Need of Services Mediation project by the juvenile court. In the first five weeks of the semester, students will be introduced to basic mediation theory, procedures, and ethical constraints; communication techniques; juvenile law; and operation of the child welfare system in Arkansas. This course will include lectures, discussion, and simulation exercises. In the remaining weeks of the semester, students will receive additional information and simulation practice, and they will also observe and participate in the mediation of actual cases assigned to the Project. 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.

LAWW7342 Law and the Internet (Irregular) This is a survey course. Students will be engaged with doing business over the internet. A partial list of topics to be covered is: jurisdiction, trademarks, copyrights, patents, contracting, taxation, privacy, obscenity, defamation, and criminal law. The course is highly interactive. In addition to lectures, students will participate in case discussions and presentations.

LAWW7661 Bankruptcy (Irregular) Bankruptcy Reorganizations (Irregular) (2-3) Examines the rules and tactics governing the reorganization of struggling businesses or farm under Chapter 11 of the Bankruptcy Code. Students will reorganize a hypothetical failing business as a part of the course.

LAWW7672 Advanced Consumer Bankruptcy (Sp, Su, Fa) Study of current developments in consumer bankruptcy and their applications to consumers and nonconsumers transactions. Prerequisite: LAWW 6602.

LAWW7682 Indian Law (Sp, Su, Fa) Study of selected law and legal issues that apply to Native Americans and their tribes. General concept of tribal self-determination is the unifying theme of the course. Topics include tribal sovereignty and government; American Indian civil rights; administration of justice on and off the reservation; American Indian land claims; land, hunting, and fishing rights; water rights; American Indian health, education, and welfare; Bureau of Indian Affairs; state taxation; individual and tribal treaty rights; federal Indian policy; and American Indian land claims. Prerequisite: LAWW 7700V Mathematics in Society (Sp, Su, Fa) Basic topics in trigonometry including identities, formulas, and polar coordinate system. Credit will be allowed for only one of MATH 1213 or MATH 1285. Corequisite: MATH 1213L. Prerequisite: MATH 1203 with a C or better or a score of 22 on the Math component of the ACT exam.

MATH1110 Survey of Calculus (Sp, Su, Fa) This course introduces students to a variety of topics in contemporary mathematics, drawn mainly from applications to the social sciences. Topics include graph theory, statistics and voting systems. Prerequisite: MATH 1110 or MATH 1204 with a C or better or a score of 24 on the Math component of the ACT exam.

MATH1265 Precalculus Mathematics (Sp, Su, Fa) Topics in algebra and trigonometry. To be taken by students who have successfully completed either MATH 12 or a trigonometry course in high school and expect to take MATH 2254. Credit will be allowed for only one of MATH 1265 and MATH 1285. Prerequisite: A score of 23 on the Math component of the ACT exam.

MATH1203 College Algebra (Sp, Su, Fa) This course develops skills required in algebra. Corequisite: Lab component.

MATH1204 College Algebra with Review (Sp, Su, Fa) Same as MATH 1203 with additional support, increased class time, advisorical review, and computerized lab component. Credit will be allowed for only one of MATH 1203 and MATH 1285. Prerequisite: MATH 0003 with a grade of C or better or a score of 22 on the Math component of the ACT exam. Corequisite: Lab component.

MATH1213 Plane Trigonometry (Sp, Su, Fa) Basic topics in trigonometry including identities, formulas, and polar coordinate system. Credit will be allowed for only one of MATH 1213 or MATH 1285. Corequisite: MATH 1213L. Prerequisite: MATH 1203 with a grade of C or better or a score of 23 on the Math component of the ACT exam.

MATH1285 Precalculus Mathematics (Sp, Su, Fa) Topics in algebra and trigonometry. To be taken by students who have successfully completed either MATH 12 or a trigonometry course in high school and expect to take MATH 2254. Credit will be allowed for only one of MATH 1265 and MATH 1285. Prerequisite: A score of 23 on the Math component of the ACT exam.

MATH1265 Precalculus Mathematics (Sp, Su, Fa) Topics in algebra and trigonometry. To be taken by students who have successfully completed either MATH 12 or a trigonometry course in high school and expect to take MATH 2254. Credit will be allowed for only one of MATH 1265 and MATH 1285. Prerequisite: A score of 23 on the Math component of the ACT exam.

MATH1203 College Algebra (Sp, Su, Fa) This course develops skills required in algebra. Corequisite: Lab component.

MATH1204 College Algebra with Review (Sp, Su, Fa) Same as MATH 1203 with additional support, increased class time, advisorical review, and computerized lab component. Credit will be allowed for only one of MATH 1203 and MATH 1285. Prerequisite: MATH 0003 with a grade of C or better or a score of 22 on the Math component of the ACT exam. Corequisite: Lab component.

MATH1213 Plane Trigonometry (Sp, Su, Fa) Basic topics in trigonometry including identities, formulas, and polar coordinate system. Credit will be allowed for only one of MATH 1213 or MATH 1285. Corequisite: MATH 1213L. Prerequisite: MATH 1203 with a grade of C or better or a score of 23 on the Math component of the ACT exam.

MATH2254 Calculus III (Sp, Su, Fa) Topics in linear algebra and multivariable calculus, including the study of vector-valued functions, partial derivatives, multiple integrals, and vector fields. Prerequisites: MATH 1265 or MATH 1285 with a grade of C or better or a score of 23 on the Math component of the SAT exam.

MATH2265 Business Calculus (Sp, Su, Fa) This course is designed for students in business, economics, and social sciences. The course covers topics such as limits, derivatives, and integrals, with applications to business and economics. Prerequisite: MATH 1203 or MATH 1285 with a grade of C or better or a score of 22 on the Math component of the SAT exam.
MATH2103H Honors Discrete Mathematics (Fa) Introductory study of sets, relations, logic, proofs, algorithms, counting methods, graph theory, trees, and Boolean algebra. Prerequisite: MATH 1203 with a grade of C or better or ACT math score of 21 or above. (Same as MATH 2103C)

MATH2103C Discrete Mathematics (Sp, Su, Fa) Introductory study of sets, relations, logic, proofs, algorithms, counting methods, graph theory, trees, and Boolean algebra. Corequisite: Lab component. Prerequisite: MATH 1203 with a grade of C or better or ACT math score of 21 or above. (Same as MATH 2103)

MATH2183 Mathematical Reasoning in a Quantitative World (Sp, Su, Fa) Focuses on mathematical reasoning required in contexts of growing complexity and sophistication. The purpose of this course is to cause students to possess the power and habit of mind to see and to question, to analyze, to decide, to take action. Prerequisite: MATH 1203 with a grade of C or better or ACT math score of 21 or above. (Same as MATH 2183C)

MATH2213 Survey of Mathematical Structures I (Sp, Su, Fa) Sets and logic, systems of numerations, number systems and operations, and elementary number theory. Prerequisite: MATH 1203 with a grade of C or better

MATH2223 Survey of Mathematical Structures II (Sp, Su, Fa) Geometry and statistics and probability. Prerequisite: MATH 1203 with a grade of C or better

MATH2554C Calculus I (Sp, Su, Fa) Derivative of functions of one variable, applications of the derivative, introduction of the integral, and applications. Credit will be allowed for only one of MATH 2554 and MATH 2043. Prerequisite: MATH 1203 with a grade of C or better, or a score of 27 on the Math component of the ACT exam. (Same as MATH 2554C)

MATH2553C Calculus I (Sp, Su, Fa) Derivative of functions of one variable, applications of the derivative, introduction of the integral, and applications. Credit will be allowed for only one of MATH 2553 and MATH 2043. Corequisite: Drill component. Prerequisite: MATH 1203 or MATH 2223 with a grade of C or better, or a score of 27 on the Math component of the ACT exam. (Same as MATH 2553C)

MATH2564C Calculus II (Sp, Su, Fa) Integral calculus of one variable and infinite series. Prerequisite: MATH 2554 with a grade of C or better. (Same as MATH 2564C)

MATH2564H Honors Calculus II (Sp, Su, Fa) Integral calculus of one variable and infinite series. Prerequisite: MATH 2554 with a grade of C or better. (Same as MATH 2564H)

MATH2654C Calculus III (Sp, Su, Fa) Vector functions and vector calculus. Corequisite: Drill component. Prerequisite: MATH 2564 with a grade of C or better. (Same as MATH 2654C)

MATH2654H Honors Calculus III (Sp, Su, Fa) Vector functions and vector calculus. Corequisite: Drill component. Prerequisite: MATH 2564 with a grade of C or better. (Same as MATH 2654H)

MATH2803 Linear Algebra (Sp, Su, Fa) Systems of linear equations, vector spaces, linear transformations, matrices, and determinants. Prerequisite: MATH 2554 or MATH 2043, with a grade of C or better.

MATH2803H Honors Linear Algebra (Sp, Su, Fa) A proof-based course on vector spaces, linear transformations, matrices, determinants, eigenvalues and eigenvectors, with applications. Recommended for mathematics majors. Prerequisite: MATH 2554 with a grade of C or better. (Same as MATH 2803H)

MATH3021 Survey of Higher Math (Sp) This course overviews the landscape of higher mathematics, touching on many of the themes of modern mathematics: proof, logic, cardinality, analysis, model theory, algebra, number theory, topology, and geometry. Prerequisite: MATH 2803.

MATH3083 Linear Algebra (Sp, Su, Fa) Systems of linear equations, vector spaces, linear transformations, matrices, and determinants. Prerequisite: MATH 2554 or MATH 2043, with a grade of C or better.

MATH3083H Honors Linear Algebra (Sp, Su, Fa) A proof-based course on vector spaces, linear transformations, matrices, determinants, eigenvalues and eigenvectors, with applications. Recommended for mathematics majors. Prerequisite: MATH 2554 with a grade of C or better. (Same as MATH 3083H)

MATH3103H Introduction to Abstract Algebra I (Sp, Su, Fa) Introduction to algebraic structures with emphasis on rigorous justification of results. Prerequisite: MATH 3083.

MATH3113 History of Mathematics (Irregular) Prerequisite: MATH 2554 and junior standing.

MATH3203 Theory of Numbers (Irregular) Prerequisite: MATH 2554 and junior standing.

MATH3204 Differential Equations and Laplace Transform (Sp, Su, Fa) First and second order ordinary differential equations, the Laplace transform, and matrix systems of ordinary differential equations. Prerequisite: MATH 2564 with a grade of C or better. (Same as MATH 2704)

MATH3403C Differential Equations and Laplace Transform (Sp, Su, Fa) First and second order ordinary differential equations, the Laplace transform, and matrix systems of ordinary differential equations. Three hours of lecture and two hours of drill (recitation) per week. Corequisite: Drill component. Prerequisite: MATH 2564 with a grade of C or better. (Same as MATH 3403C)

MATH3423 Advanced Applied Mathematics (Sp, Su, Fa) Matrices, Fourier analysis, and partial differential equations. Prerequisite: MATH 3404.

MATH3773 Foundations of Geometry I (Fa) Axiomatic method: Euclidean geometry; non-Euclidean geometry. Prerequisite: MATH 392H. Honors Colloquium (Irregular) Covers a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in mathematics).

MATH399VH Honors Mathematics Course (Sp, Su, Fa) (1-6) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree.

MATH400V Directed Readings (Sp, Su, Fa) (1-6) Prerequisite: Permission of the department.

MATH4103 Finite Dimensional Vector Spaces (Irregular) Linear functions, matrix representation of linear transformations, scalar products, orthogonality, and the Gram-Schmidt orthogonalization process. Prerequisite: MATH 3083.

MATH4113 Introduction to Abstract Algebra II (Fa) Topics in abstract algebra including finite abelian groups, linear groups, factorization in polynomial rings, quadratic field extensions, Gaussian integers, Wedderburn’s theorem, and multilinear algebra. Prerequisite: MATH 3113.

MATH4115 Mathematical Modeling (Irregular) Mathematical techniques for formulating, analyzing, and criticizing deterministic models taken from the biological, social, and physical sciences. Techniques include graphical methods, stability, optimization, and phase plane analysis. Prerequisite: MATH 3404.

MATH41413 Dynamics and Chaos (Irregular) Mathematical and computational techniques for developing, executing, and analyzing dynamic models arising in the biological sciences. Both discrete and continuous time models are studied. Applications include population dynamics, cellular dynamics, and the spread of infectious diseases. Prerequisite: MATH 2554. (Same as BIOL 41413)

MATH41633 Theory of Functions of a Complex Variable I (Irregular) Complex numbers, analytic functions, power series, complex integration, Cauchy’s Theorem and integral formula, maximum principle, singularities, Laurent series, and Milne-thermostat. Prerequisite: MATH 4133.

MATH5513 Theory of Functions of a Real Variable II (Sp) Measure and integration on abstract measure spaces, signed measures, Hahn decomposition, Radon-Nikodým theorem, Lebesgue 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 (Sp) Complex numbers, analytic functions, power series, complex integration, Cauchy’s Theorem and integral formula, maximum principle, singularities, Laurent series, and Milne-thermostat. Prerequisite: MATH 5503.

MATH5533 Theory of Functions of a Complex Variable II (Sp) Riemann Mapping Theorem, analytic continuation, harmonic functions, and entire functions. Prerequisite: 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, homology theorem, the Mayer-Vietoris sequence, Borsuk’s theorem, and the Euler characteristic. Prerequisite: MATH 4573.

MATH600V Master’s Thesis (Sp, Su, Fa) (1-4) Prerequisite: Graduate standing.

MATH610V Directed Readings (Irregular) (1-6) Prerequisite: MATH 510V.

MATH619V Topics in Algebra (Sp, Su, Fa) (1-6) Corequisite: Graduate standing.

MATH695V Topics in Analysis (Sp, Su, Fa) (1-6) Corequisite: Graduate standing.

MATH700V Topics in Topology (Sp, Su, Fa) (1-6) Corequisite: Graduate standing.

MATH7070V Topics in Algebra (Sp, Su, Fa) (1-6) Corequisite: Graduate standing.

MBAD511V Corporate Financial Management (Sp) (2-3) Preparation and utilization of financial information for internal management purposes: planning and special decisions, cost determination, performance evaluation, and controls. Corequisite: MBAD 5122 and MBAD 5222. Prerequisite: MBAD 5122 and MBAD 5222.

MBAD512V Accounting Decisions and Control (Su) (2-3) Preparation and utilization of financial information for internal management purposes: planning and special decisions, cost determination, performance evaluation, and controls. Corequisite: MBAD 5122 and MBAD 5222. Prerequisite: MBAD 5122 and MBAD 5222.

MBAD513V Information Technology and Decision Making (Fa) (2-3) Utilization of information, quantitative techniques, and computer application in decision making and problem solving for management. Corequisites: MBAD 5112 and MBAD 5222. Prerequisite: MBAD 5112 and MBAD 5222.

MBAD521V Leading High Performance Organizations (Irregular) (2-3) Managing in a global workforce, including human re-
source issues, motivation, performance evaluation, quality concepts, transformational leadership, and selection/re-employment development/retirement. Prerequisite: Corequisite: Drill component. Pre- or Corequisite: MEEG 2303 and MEEG 3013.

MEEG2323L Mechanical Engineering Laboratory II (Sp, Su) Design and implementation of mechanical components. Corequisite: Drill component. Pre- or Corequisite: MEEG 3003. Prerequisite: MEEG 2303 and MEEG 3013.

MEEG2321L Mechanical Engineering Laboratory I (Sp, Su) Design and implementation of mechanical systems. Corequisite: Drill component. Prerequisite: ELEG 3903, MEEG 3202L, MEEG 3503 and MEEG 3113.

MEEG3503 Fluids of Fluids (Fa, Su) A study of fluids including properties, pressure forces, and fluid field utilizing conservation of mass, conservation of energy, and momentum principles. Prerequisite: MATH 3404. Prerequisite: MEEG 2493.


MEEG4023 Composite Materials: Analysis and Design (Irregular) A study of fibrous composites and materials with emphasis on mechanical behavior, synthesis, and application. Topics include macro- and micro-mechanics, fatigue, and failure analysis. Corequisite: MEEG 3013.

MEEG4103 Machine Element Design (Sp, Su) Select design components commonly used in modern machines, primarily for energy transmission. Students will be required to design a small system and prepare their design to the class. The mechanical design component required of honors students. Advanced project required. Prerequisite: MEEG 3013.

MEEG4123 Fluids and Heat Transfer (Sp, Su) An introduction to the use of the finite element method for the analysis and design of fluid systems. Prerequisite: MEEG 4113. Prerequisite: MEEG 4100. A study of fluids including properties, pressure forces, and fluid field utilizing conservation of mass, conservation of energy, and momentum principles. Prerequisite: MATH 3404. Prerequisite: MEEG 2493.

MEEG4133 Creative Project Design II (Sp, Su) Students are expected to possess basic competency in computer-aided design. Prerequisite: Drill component. Prerequisite: MEEG 2003 and MEEG 2100.

MEEG4203 Introduction to Materials (Sp, Su) A study of chemistry, physical, and electrical properties of materials using fundamental atomic approaches. The materials of interest are: metals, polymers, ceramics, and composites. The interactive relationship between structure, properties, and processing of materials will be emphasized in the course. Corequisite: Drill component. Prerequisite: MATH 2524, PHYS 2044, MEEG 2003 and MEEG 2100.

MEEG4203 Computer-Aided Design Competency (Sp, Fa) Students entering the Mechanical Engineering Department are expected to possess basic competency in computer-aided design. Students need to pass a competency test. Deficiencies may be remedied through selected computer-based instruction. Prerequisite: GNEG 1121 or GNEG 1121H.

MEEG4203 Machine Dynamics and Control (Sp, Su) Relaxation of three hours per week and drill one hour per week. Prerequisite: PHYS 2044, MEEG 2100 and MEEG 2003. A large-scale project involving hands-on work addressing issues faced by managers in partnering firms. Corequisite: MEEG 5313 and MEEG 5422.

MEEG4203Project Plan (Irregular) (1-3) Corequisite: Drill component. Prerequisite: MEEG 2003. May be repeated for up to 5 hours of degree credit.


MEEG4203B Capstone Project Plan (Irregular) (1-3) Corequisite: Drill component. Prerequisite: MEEG 2303 and PHYS 2074.


MEEG4203T Case Study: How to Plan, Lead, and Implement a Project (Irregular) A study of business ethics and related professional issues. Corequisite: Drill component.


energy systems and availability conservation methods. Prerequisite: MEEG 4143.
MEPG303H Honors Thermal Systems Analysis and Design (Su, Fa) Analysis design and optimization of thermal systems and components with examples from such areas as power generation, refrigeration, and propulsion. Availability loss characteristics of power generation systems and product development and design. May be repeated for up to 3 hours of degree credit.

MEPG333H Honors Thermal Systems Analysis and Design (Su, Fa) Analysis design and optimization of thermal systems and components with examples from such areas as power generation, refrigeration, and propulsion. Availability loss characteristics of power generation systems and product development and design. May be repeated for up to 3 hours of degree credit.

MEEP403H Honors Introduction to Flight (Fa) The course will provide understanding of micro electronics, airfoil design characteristics, and flight control surfaces. Prerequisite: MATH 3404 and MEEG 3050.

MEEP403S Honors Combustion Engines (Irregular) Study of the design of internal combustion engines, including emissions and performance issues. Prerequisite: MEEG 2030.

MEEP411VH Special Projects (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

MEEP419VH Honors Special Projects (Sp, Su, Fa) (1-6) May be repeated for up to 6 hours of degree credit.

MEEP4253 Advanced Mechanics of Materials I (Irregular) Combined stress, theories of failure, thick-walled cylinders, bending of unsymmetrical sections, torsion in noncircular section, plate stresses, and strain energy analysis. Prerequisite: MEEG 3113 and MEEG 3013.

MEEP4253 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 digital computer applications undertaken. Prerequisite: MEEG 3113 and MEEG 4103 and graduate standing.

MEEP4253 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 undertaken with experimental verification. Prerequisite: MEEG 5103 and graduate standing.

MEEP4123 Finite Elements Methods II (Irregular) Development and application of finite element (FE) methods to solve mechanical engineering problems. Computer methods to the design and analysis of complex mechanical systems. Applications are taken from solid and fluid mechanics, heat transfer, and acoustics. Emphasis is placed on the FE methodology in order to make accessible the research literature and commercial software manuals, and to encourage responsible use and interpretation of FE analysis. Prerequisite: MEEG 4123 and graduate standing or consent.

MEEP4143 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.

MEEP4253 Bio-Mems (Sp) Topics include the fundamental principles of microfluidics, Navier-Stokes Equation, bio/bio 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 2030 or CHEG 3123. (Same as BENG 5253.)

MEEP4263 Introduction to 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 bulk micromachining, device packaging, device reliability, examples of micro sensors and actuators. Recitation three hours per week.

MEEP4273 Electronic Packaging (Irregular) An introductory treatment of electronic packaging from single chip to multichip, including materials, electrical design, thermal design, mechanical design, packaging design, packaging simulation, and processing considerations, reliability, and testing. Credit cannot be earned for both MEEG 4273 and ELEG 5273. Prerequisite: (ELEG 2213 or ELEG 3913) and MATH 3404. (Same as ELEG 5273)

MEEP4353 Physical Metallurgy (Fa) Physical and chemical properties of solids and the application of materials in commerce. Prerequisite: MEEG 2300.

MEEG4353 Physical and Chemical Vapor Deposition Processes (Irregular) A new laboratory course will introduce students to practical electron microscopy and to the operation of the Titan S/TEM for examination of sub-angstrom examination of materials. Students will learn how to conduct a TEM study, how to use the TEM, and how to extract and interpret useful information. Prerequisite: Graduate standing.

MEEP5611 Research Communication Seminar of MS Thesis (Sp, Su, Fa) Graduate seminar to develop oral presentation skills and to exchange research ideas. The seminar will be devoted to mechanical engineering research topics. Course includes weekly seminars and feedback from the faculty member teaching the course. May be repeated for up to 6 hours of degree credit.

MEEP5673 Advanced Microelectronics-Photonic (Irregular) Science and engineering graduates 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 turn-of-the-<ref>materials may be repeated for up to 3 hours of degree credit.</ref>
students to develop oral presentation skills and to exchange research ideas. Research presentations will be on various topics in the area of micro technology, and professional clinical, and research management and planning also being addressed. Prerequisite: Graduate standing.

METH6811 2nd Year Operations Seminar - Advanced Management and Leadership (Fa) Weekly seminar for 2nd year Microelectronics-Photonics graduate students to discuss topics that increase professional performance in technology-centered organizations. The discussions will focus on issues that affect management and leadership effectiveness and efficiency, and may include examples from current events. Prerequisite: Graduate standing.

METH6911 2nd Year Operations Seminar - Advanced Management and Leadership (Sp) Weekly seminar for 2nd year Microelectronics- Photonics graduate students to discuss advanced issues that increase professional performance in technology-centered organizations. The discussions will focus on the complex issues that affect management and leadership effectiveness and efficiency, and may include examples from current events. Prerequisite: Graduate standing.

Middle Eastern Studies (MEST)

MEST2003 Islam in History, Practice and Experience (Sp, Su, Fa) This course introduces Islam as a global religion and world civilization, including the study of the Qur’an, prophet Muhammad, ritual and community practices, metaphysics, mysticism, art, literature, and sacred and critical history.

MEST2013 Gateway to the Middle East (Sp, Su, Fa) This course is designed to provide students with fundamental building blocks for understanding the contemporary Middle East/Islamic World. Students will be introduced to a variety of disciplinary approaches to the study of the geo-cultural, region, including history, politics, and literature, religions and cultures, social geography, and economics.

MEST399V MEST: Honors Thesis (Irregular) (1-3) Mentorship of undergraduate students by upperclassmen on individual basis to explore selected topics in management. May be repeated for up to 12 hours of degree credit.

MEST4003H Honors Middle East Studies Honors Colloquium (Sp, Su, Fa) An interdepartmental 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 8 hours of degree credit.

MEST4003 HONORS MIDDLE EAST STUDIES SEMINAR (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. MEST4003 will specialize 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 (Irregular) Business students may not receive credit for this course. Course introduces students to fundamental concepts of management and emphasizes the importance of effective management behavior in organizations. Addresses the planning, organizing, directing, and controlling functions performed by managers as these functions relate to managing human resources. Provides surveys of critical management concepts; enables students to develop analytical and problem solving skills through case studies and experiential exercises. Students may not receive credit for both WCOB 2033 and MGMT 3563.

MGMT3993 Entrepreneurship and New Venture Development (Fa) The role of the entrepreneur in starting up new businesses, identification of new venture opportunities and the evaluation of their feasibility.

MGMT4003H Honors Management Colloquium (Irregular) Explores events, concepts and new developments in the field of Management. Prerequisite: Senior standing.

MGMT4103H Honors 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 business decisions, and ethics related to the various business functions in organizations. Prerequisite: Admission to a Ph.D. program.

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 evaluating leadership characteristics 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: MGMT 3563.

MGMT4433 Small Enterprise 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) Mentors students on 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 management and the cultural environments in which IBUs exist today. Students examine international business environment, culture, international trade, and investment issues particular emphasis on managing the unique values and behaviors of international business in China, Korea, and Japan. Prerequisite: WCOB 1032.

MGMT4943 Organizational Staffing (Sp, Fa) Independent study of theoretical, legal, methodological, and substantive issues related to selection, performance appraisal, and development of employees. Students participate in individual and group projects designed to provide theoretical and practical staff training. Prerequisite: WCOB 1032.

MGMT4993 Organizational Rewards and Compensation (Sp, Fa) Develops an understanding of rewards systems and the application of understanding of the design of compensation systems. Provides theoretical and legal background and practical applications for the use of reward systems in attracting, motivating, and retaining employees. Prerequisite: WCOB 1033.

MGMT4993 Entrepreneurship Practicum (Sp, Su, Fa) Hands-on management of an actual on-going business. Students will gain experience working about, and managing a business. Topics covered include accounting, economics, finance, information systems, law, logistics, management, and marketing. Entry by application only. May be repeated for up to 6 hours of degree credit.

MGMT5213 Business Foundations for Entrepreneurs (Sp) Introduction to the fundamental business concepts an entrepreneur needs to know to evaluate and launch a successful new venture. Topics include environmental scanning and development of employees, employee selection, marketing, market research, strategic accounting for funds, economic considerations, and the management of operations. Prerequisite: Graduate standing.

MGMT5223 Managing and Leading Organizations (Fa) Management for a global environment. The course will cover interpersonal workplace skills such as leadership and motivation, along with the management of human capital through well designed recruitment, selection, performance evaluation, compensation, and quality control systems.

MGMT5313 Strategic Management (Sp) Strategy formulation, strategy implementation, and other topics related to the long-term success of the firm. Includes role of the general manager, international issues, and the impact of management fads on decision making. Prerequisite: MBA 5212 and MBA 5222 and MBA 5223.

MGMT5323 New Venture Development (Fa) Focuses on the identification and analysis of new venture opportunities and how entrepreneurs acquire the human and financial resources needed to develop successful businesses. Topics include market analysis, development of products and services, negotiation, developing and executing business plans, and new venture financing.

MGMT5363 Innovation & Creativity (Sp) This course will provide a framework for developing, assessing and implementing innovations in start-up and established businesses. Focus is on creative decision making, managing for innovation, strategic analysis of innovations, and implementation of innovations. Aimed at entrepreneurs, brand managers, and managers in industries where innovation is a key strategic capability.

MGMT5993 Entrepreneurism (Sp, Su, Fa) Hands-on management of an actual on-going business. Students will gain experience working in, making decisions about, and managing a competitive business. Students will be required to analyze the business in a term paper or other integrative assignment. Entrance by application only.

MGMT6113 Seminar in Organizational Behavior (Irregular) Survey of theoretical and empirical literature in organizational behav- ior. Strengths critical evaluation of current writing in the field and its integration with prior research. Covers topics relating to motivation, satisfaction and job attitudes, personality differences, leadership, and group dynamics. Prerequisite: Admission to a Ph.D. program.

MGMT6123 Seminar in Organization Theory (Irregular) This Ph.D.-level seminar presents an overview and introduction into organizational theory literature. Emphasis on the development of relevant students' understanding and future directions are examined. Prerequisite: Admission to a Ph.D. program.

MGMT6133 Seminar in Strategy Research (Irregular) This Ph.D.-level seminar presents an overview and introduction into the strategy literature. Emphasis on both the content and process of the expant research. Relevant theory, methods, ‘mainstream’ theories, 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 organizations. Issues of basic philosophy of science and research methods are covered. Special attention given to the 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 specific research topics in management. Topics vary depending on 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 on current special 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) (1-4) Individual reading and research. May be repeated for up to 6 hours of degree credit.

MGMT700V Doctoral Dissertation (Sp, Fa) (1-18) Prerequis- ite Candidacy.

Army ROTC (MILS)

MILS1001 Basic Outdoor Skills and Leadership Introduction (Fa) Incorporates various outdoor field craft skills involving both classroom and outdoor instruction. Subjects include small group leadership, rappelling, basic map reading, and importance of first aid. Introduction to safe use of a rifle and basic marksmanship.

MILS1011 Rappelling, Outdoor Field Craft and Leadership Development (Sp) Incorporates various outdoor field craft skills including both classroom and outdoor 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 2 hours per week.

MILS1101 Basic Outdoor Craft Field and Safety (Sp, Fa) Introduction to basic military survival skills and outdoor craft field. Subjects include cold/hot weather survival, water procurement methods, expedient field shelters, signaling, map reading and rappelling technique. Materials and equipment furnished by Department of Military Science.

MILS1121 Basic Outdoor Craft Field and Safety (Sp, Fa) Introduction to basic military survival skills and outdoor craft field. Subjects include cold/hot weather survival, water procurement methods, expedient field shelters, signaling, map reading and rappelling technique. Materials and equipment furnished by Department of Military Science. Classroom 2 hours per week.

MILS2002 Leadership Development I (Fa) Continuation of basic skills presented in MILS 1001 and MILS 1011. Course focus is 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: Lab component. Prerequisite: 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. Focuses 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 craft field. Classroom 2 hours per week. Lab component. Prerequisite: MILS 1001 and MILS 1011 or approval of Professor of Military Science.

MILS2011 Advanced Rifle Marksmanship (Sp) Course to
Course Descriptions

Marketing (MKTG)

MKTG3433 Introduction to Marketing Strategy (Fa)
Examines strategies, tactical, and operational decisions related to contemporary marketing topics. Covered include product, services, and international marketing strategies in consumer and business markets. Prerequisites: ECON 2013 and ECON 2014.

MKTG3535 Consumer Behavior (Fa)
Concept of consumer motivation, buying behavior, and marketing strategy. Prerequisite: Instructor consent.

MKTG3633 Marketing Research (Sp)
Design, conceptualization, analyses, and reporting of secondary and primary data for the purpuses of marketing planning and segmentation analysis. Includes research strategy implementation, determining product development, pricing, distribution, and consumer decisions. Prerequisite: Instructor consent.

MKTG4003H Honors Marketing and Transportation Colloquium (Irregular)
Opportunities and perpectives for up to 3 hours of credit.

MKTG4433 Research Methods (Irregular)
Comprehensive survey and critical review of the history of marketing thought and contemporary schools of thought in marketing discipline. Prerequisite: MKTT 5103 and MKTT 5303.

MKTG6443 Seminar in Marketing Theory (Irregular)
Topics in marketing. Prerequisites: Instructor consent.

Music Literature (MLT)

MLT1003 Basic Course in the Arts: Music Literature (Sp, Fa)
Music literature in Western music; history, forms, and styles of performance in guided listening. Prerequisite: Instructor consent.

MLT1003H Honors Music Literature (Sp, Fa)

Applied Music (CLASS)

MUAC1111 Italian for Singers (Fa)
Training in vocal performance and practices of Italian as applied to singers. Prerequisite: Instructor consent.

MUAC1111 German for Singers (Even years, sp)
Training in vocal performance and practices of German as applied to singers. Prerequisite: Instructor consent.

MUAC1111 French for Singers (Odd years, sp)
Training in vocal performance and practices of French as applied to singing. Prerequisite: Instructor consent.

MUAC1221 Piano Class for Music Majors I (Fa)
Training in piano skills. Prerequisite: Instructor consent.

MUAC1221 Piano Class for Music Majors II (Irregular)
Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Violin and Viola (Fa)
Training in violin and viola. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Oboe and Clarinet (Fa)
Training in oboe and clarinet. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Violin and Viola (Irregular)
Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Violin and Viola (Irregular)
Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Violin and Viola (Irregular)
Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

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Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

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Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

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Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Violin and Viola (Irregular)
Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.

MUAC1311 Piano Class for Violin and Viola (Irregular)
Continuation of Piano Class for Music Majors. Prerequisite: Instructor consent.
and teaching techniques of the low brass family. Prerequisite: Music education major pursuing a degree in Piano Education, Voice Education, String Education or Woodwind Brass Percussion Education; or instructor’s consent.

MUAC1371 Teaching the Beginning Percussionist (Sp, Fa)
A study of the pedagogy and techniques needed to instruct middle school and junior high school students. Emphasis on elementary snare drum and marimba performance. Study of junior high band and orchestra methods, solos and ensemble music. Prerequisite: Music education major pursuing a degree in Piano Education, Voice Education, String Education or Woodwind Brass Percussion Education; or instructor’s consent.

MUAC1381 Class Instruction in Voice (Sp, Su, Fa) Fundamentals of vocalization and singing of English songs, including breathing, vowel quality, intonation and projection.

MUAC2111 Music Technology I (Sp, Su, Fa) Students will develop skills in transcribing music using music notation software and learn about sound reinforces systems. Prerequisite: MUAC 1212 or Music Education major pursuing a degree in Piano Education, Voice Education, String Education or Woodwind Brass Percussion Education; or instructor’s consent.

MUAC2221 Piano Class for Music Majors III (Fa) A continuation of MUAC 2221. Two meetings per week. Prerequisite: Music Education major pursuing a degree of Bachelor of Arts or Honors Bachelor of Arts or Bachelor of Music or Honors Bachelor of Music.

MUAC2231 Piano Class for Music Major IV (Sp) A continuation of MUAC 2231. Two meetings per week. Prerequisite: Music Education major pursuing a degree of Bachelor of Arts or Honors Bachelor of Arts or Bachelor of Music or Honors Bachelor of Music.

Music Education (MUED)

MUED2012 Introduction to Music Education (Sp) A course designed to provide the Pedagogical experiences for the prospective music teacher. Students will become familiar with professional trends, music classroom organizational and management issues, and principles of effective education. Emphasis includes basic psychological and philosophic concepts, literature, techniques and practical strategies used, and selecting, arranging or writing the musical score.

MUED5060 Master’s Thesis (Irregular) (1-6)
Preparation of a master’s thesis as partial fulfillment of the requirement for the Master of Music degree.

MUED599V Seminar (Su) (1-6) May be repeated for up to 6 hours of degree credit.

Music Ensemble (MUEN)

MUEN1531 Brass Ensemble (Sp, Fa) Study and performance of chamber music for brass instruments. Rehearsal 2 hours per week.

MUEN3341 Collegium Musicum (Sp, Fa) Performance of early music in various combinations of instruments and/or voices. Two hours rehearsal weekly.

MUEN3401 Opera Theatre (Sp, Fa) Study of opera through performances of scenes, chamber and major operatic production. Admission with director’s approval.

MUEN3411 Concert Choir (Sp, Su, Fa) Three hours of rehearsal weekly, with extra rehearsals at the director’s discretion. Admission with director’s approval. No audition required prior to registration.

MUEN3421 Inspirational Singers (Sp, Fa) Performance of African-American literature with particular emphasis on Negro Spirituals and traditional/contemporary gospel music. No audition required to registration. Rehearsal 2 hours per week.

MUEN3431 Symphony Orchestra (Sp, Su, Fa) Rehearsal 3 hours per week with extra rehearsals at director’s discretion. Admission with director’s approval.

MUEN3441 Marching Band (Fa) Rehearsal 8 hours per week. Admission with director’s approval.

MUEN3451 Schola Cantorum (Sp, Fa) Vocal ensemble limited to the more experienced singers. Rehearsal 5 hours per week. Admission with director’s approval.

MUEN3461 Wind Symphony (Sp, Fa) Rehearsal 3 to 5 hours per week. Admission by audition and approval of the conductor. Corequisite: Lab component.

MUEN3471 Jazz Performance Laboratory (Sp, Fa) Training in various styles of jazz and popular music. Rehearsal 3 hours per week. Admission by audition.

MUEN3481 Campus Band (Fa) Rehearsal 3 hours per week. Admission by audition and approval of the conductor.

MUEN3530 Chamber Music (Sp, Fa) Performance of small ensemble music for any combination of instruments and/or voice. Rehearsal 3 hours per week.

MUEN3551 Symphonic Band (Sp) Rehearsal 3 hours per week. Admission by audition and approval of the conductor.

MUEN3521 Woodwind Quintet (Sp, Fa) Study and performance of music for woodwind quintet. Weekly coaching will emphasize instrumentation, blend, stylistic awareness, and ensemble precision. Repertoire ranges from the 18th to the 20th centuries. 3 hours of rehearsals weekly.

MUEN3531 Brass Ensemble (Sp, Fa) Study and performance of chamber music for brass instruments. Rehearsal 2 hours per week.

MUEN3541 Accompanying (Sp, Fa) Piano accompanying of vocal and instrumental soloists. Rehearsal 2 hours per week. Prerequisite: MUEN 110V.

MUEN3551 Percussion Ensemble (Sp, Fa) Study and performance of ensemble music for multiple percussion instruments.

MUEN3581 Vocal Ensemble (Sp, Fa, Su) Study and performance of vocal chamber music. Rehearsal 2 hours per week for 1 hour of credit.

MUEN3711 Flute Ensemble (Sp, Fa) Study and performance of music for multiple flutes, including trios, quartets, quintets, and flute choir. Rehearsal 2 hours per week.

MUEN3721 Saxophone Ensemble (Sp, Fa) Study and performance of music for multiple saxophones, including trios, quartets, quintets, and saxophone choir. Rehearsal 3 hours per week.

MUEN3741 Double Reed Ensemble (Sp, Fa) Study and performance of music for multiple woodwinds, including trios, quartets, quintets, and saxophone choir. Rehearsal 3 hours per week.
and performance of music for multiple bassoons and contrabassoon, including trios, quartets, quintets, and bassoon choir. One hour of rehearsal weekly.

Music History (MUHS)

MUHS3703 History of Music to 1800 (Fa) Survey of history of music in western culture from ancient Greece to 1800. Lecture 3 hours, listening/quiz laboratory 1 hour per week. Prerequisite: MUHS 1003 or MUHS 1004. History major pursuing a Bachelor of Arts or Bachelor of Music or Honors Bachelor of Music or Music minors or with instructor’s consent. Lecture 3 hours, listening/quiz laboratory 1 hour per week. Corequisite: MUHS 1003 or MUHS 1004. Study and performance of music for multiple bassoons and contrabassoon, including trios, quartets, quintets, and low brass choir. Rehearsal 2 hours per week.

MUHS3781 Tuba Ensemble (Sp, Fa) Study and performance of music for multiple trombones, including trios, quartets, quintets, and trombone choir. Rehearsal 2 hours per week.

MUEN3541 Collegium Musicum (Sp, Fa) Performance of early music for various combinations of instruments and/or voices. Rehearsal 2 hours per week.

MUEN401 Opera Theatre (Sp, Fa) Study of opera through performances of scenes, chamber and major operatic production. Admission with director’s approval.

MUEN411 Concert Choir (Sp, Su, Fa) Rehearsal 3 hours per week with extra rehearsals at the director’s discretion. Admission with director’s approval. No audition required prior to registration.

MUEN412 Master Class Singers (Sp, Fa) Performance of African-American literature with particular emphasis on Negro Spirituals and traditional/contemporary gospel music. No audition required. Rehearsal 3 hours per week.

MUEN431 Symphony Orchestra (Sp, Su, Fa) Rehearsal 3 hours per week with extra rehearsals at director’s discretion. Admission with director’s approval. Corequisite: Lab component.

MUEN431 Marching Band (Fa) Rehearsal 8 hours per week. Admission with director’s approval.

MUEN441 Schola Cantorum (Sp, Fa) Vocal ensemble limited to the more experienced singers. Rehearsal 5 hours per week. Admission with director’s approval.

MUEN460 Woodwind Symphony (Sp, Fa) Study and performance of music for woodwind quintet. Weekly coaching will emphasize intonation, blend, stylistic awareness, and ensemble precision. Rehearsal begins from the 18th to the 20th centuries. 3 hours of rehearsals weekly.

MUEN541 Accompanying (Sp, Fa) Piano accompanying of vocal and instrumental soloists. Rehearsal 2 hours per week. Prerequisite: MUAP 110V.

MUEN551 Percussion Ensemble (Sp, Su) Study and performance of percussion music for multiple percussion instruments. Rehearsal 2 hours per week.

MUEN551 Flute Ensemble (Sp, Fa) Study and performance of music for multiple flutes, including trios, quartets, quintets, and flute choir. Rehearsal 2 hours per week.

MUEN572 Clarinet Ensemble (Sp, Fa) Study and performance of music for multiple clarinets, including trios, quartets, quintets, and clarinet choir. Rehearsal 2 hours per week.

MUEN573 Saxophone Ensemble (Sp, Fa) Study and performance of music for multiple saxophones, including trios, quartets, and saxophone choir. Rehearsal 3 hours per week.

MUEN574 Double Reed Ensemble (Irregular) Study and performance of music for multiple double reed instruments, including trios, quartets, quintets, and double reed choir. Rehearsal 2 hours per week.

MUEN575 Trumpet Ensemble (Sp, Fa) Study and performance of music for multiple trumpets, including trios, quartets, quintets, and trumpet choir. Rehearsal 2 hours per week.

MUEN578 Tuba Ensemble (Irregular) Study and performance of music for multiple trombones, including trios, quartets, quintets, and trombone choir. Rehearsal 2 hours per week.

MUEN579 University Bassoon Ensemble (Sp, Fa) Study and and performance of music for multiple bassoons and contrabassoon, including trios, quartets, quintets, and bassoon choir. One hour of rehearsal weekly.

Music Pedagogy (MUPD)

MUPD3801 Conducting I (Fa) A study of the elementary techniques of conducting instrumental and choral groups. Prerequisite: MUPD 2100.

MUPD3811 Conducting II: Instrumental Music (Sp) Continuation of study of the techniques of conducting instrumental groups. Prerequisite: MUPD 3801.

MUPD3861 Conducting II: Vocal Music (Sp) Conducting and performance of music in the area of choral conducting. Prerequisite: MUPD 3801.

MUPD3871 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.

MUPD477V Special Topics in Pedagogy (Irregular) Subject matter not covered in other sources. With permission, may be repeated for credit if topics are different.

MUPD481V Conducting (Sp, Su, Fa) (1-4) Private lessons of 1/2 hour, and one hour conducting laboratory each week. Development of skills in conducting chamber, operatic, oratorio, ballet and band repertoire.

MUPD4863 Piano Pedagogy (Irregular) Analytical study and discussion of the various approaches to piano pedagogy and its application in individual/class instruction. Includes a demonstration of principles through actual teaching of beginning, intermediate and upper level students.

MUPD499V Special Workshop in Music (Sp, Su, Fa) (1-2) Presented by visiting master artist-teachers in various fields of music performance, teaching and composition. For this level it is expected that the prospective students are professionals in the given field seeking additional knowledge and insights from acknowledged masters. May be repeated for up to 6 hours of degree credit.

MUPD5202 Voice Pedagogy I (Irregular) Graduate-level study of the techniques and materials of voice teaching.

MUPD582V Conducting (Sp, Su, Fa) (1-2) Private lessons of 1/2 hour, and one hour conducting laboratory each week. Development of skills in conducting chamber, operatic, oratorio, ballet, and band repertoire. May be repeated for up to 18 hours of degree credit.

MUPD584V Opera Workshop Techniques (Sp, Su, Fa) (1-2) A basic course in every phase of opera production, including staging, set design, music coaching, voice casting, and translation.

MUPD586V Woodwind Techniques (Sp, Su) (1-2) A continuation of the undergraduate courses in technique and materials for elementary and secondary school music teaching. Prerequisite: One year of similar class instruction in the field on the undergraduate level.

MUPD577V Brass Techniques (Su) (1-2) A continuation of the undergraduate brass instrument course. Emphasis is placed on teaching methods, techniques and materials. Prerequisite: One year of similar class instruction in the field on the undergraduate level.

MUPD599V Special Workshop in Music (Sp, Su, Fa) (1-6) Presented by visiting master artist-teachers in various fields of music performance, teaching and composition. Prerequisite: Graduate standing. May be repeated for up to 6 hours of degree credit.

Music (MUCS)
MUS 4101 (Irregular) Applied vocal or instrumental studies relating to the MUSY 5391 Ethnomusicology Performance Studies submission of collected material, to be deposited in the University A minimum of 6 weeks summer fieldwork related to the topic of lar).

Summer School, the Ancient Asian Music Consort, and/or an Artist in and neuroscience.

Seminars on selected topics such as Musical and MUS 5353 Seminar: Topics in Systematic Musicology limited to: European Folk Music; the musical or scholarly legacy of a and Dance of Europe and the Americas (Irregular)

MUSY 5223 Seminar: Latin American Music (Even years, (Irregular) Poetry and Music (Irregular)

MUSY 600V Ethnomusicology Thesis (Sp, Su, Fa) (1-6) Subject matter not covered in other courses.

In-depth study of specialized topics in contemporary, historical, or systematic ethnomusicology, and practical instruction in essay-constructing and presentation. May be repeated for up to 4 hours of degree credit.

MUSY 477V Honors Independent Research in Ethnomusicology (Irregular) Subject matter not covered in other courses.

MUSY 4101 (Irregular) Applied vocal or instrumental studies relating to the MUSY 5391 Ethnomusicology Performance Studies submission of collected material, to be deposited in the University A minimum of 6 weeks summer fieldwork related to the topic of lar).

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MUSY 600V Ethnomusicology Thesis (Sp, Su, Fa) (1-6) Subject matter not covered in other courses.

In-depth study of specialized topics in contemporary, historical, or systematic ethnomusicology, and practical instruction in essay-constructing and presentation. May be repeated for up to 4 hours of degree credit.
NURS3313 Pharmacology in Nursing (Fa) The use of therapeutic drugs in health care is the focus of the course. Nursing assessment, safe 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 understanding the pathophysiological processes across the life span. Factors that contribute to altered physiological functioning and the body’s adaptive and compensatory mechanisms are studied. Emphasizes concepts essential for understanding the rationale for preventive and therapeutic nursing interventions for health and illness. This is a Level I course. Prerequisite: Admission into BSN professional program.

NURS3314H Honors Pathophysiology (Sp, Fa) The course focuses on understanding the pathophysiological processes across the life span. Factors that contribute to altered physiological functioning and the body’s adaptive and compensatory mechanisms are studied. Emphasizes the understanding for the rationale for preventive and therapeutic nursing interventions in health and illness. This is a Level I course. Prerequisite: admission into BSN professional program.

NURS3321L Health Assessment (Fa) The course focuses on assessment of client’s health status, environment, 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 diagnosis and clinical care studies. This is a Level I course. Corequisite: NURS 3423. Prerequisite: Admission to BSN professional program.

NURS3424 Professional Role Implementation I: Caregiver (Sp) Students define their core values and beliefs 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 program. Corequisite: NURS 3422 and NURS 3321L and NURS 3313.

NURS3634 Nursing Concepts: Adult Health and Illness (Sp, Fa) Focuses on health and illness, pathophysiologic functioning in adults experiencing acute and chronic problems. Emphasis is placed on pathophysiology for understanding the rationale for the selection of therapeutic nursing interventions in illness. The nursing process is used to assist adults meet health needs in structured settings. This is a Level II course. Corequisite: NURS 3634. Prerequisite: Completion of Level I courses.

NURS3643 Professional Role Implementation II: Caregiver (Sp, Fa) Emphasizes the role of caregiver in acute care settings. Course expands on assessment and clinical skills learned in previous courses. Emphasis is placed on clinical reasoning to promote optimum health among adults experiencing illness and/or undergoing surgery. This is a Level II course. Prerequisite: NURS 3641L. Prerequisite: Completion of Level I courses.

NURS4154 Nursing 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 or psychosocial disorders. This is a Level II course. Corequisite: NURS 3752. Prerequisite: Completion of Level I courses.

NURS4164 Professional Role Implementation IV: Teacher (Sp, Fa) 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. Prerequisites: NURS 4214. Prerequisite: Completion of Level I courses.

NURS4242 Management in Nursing (Sp, Fa) Examines principles of management and the professional nurse's role in the health care system. Considers the perspectives of management, organization, leadership and control. Includes strategies for effective 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 gerontologic theoretical concepts and as they relate to nursing care of older adults. Students explore socio-cultural context of gerontologic nursing, professional standards of practice, common health concerns, and future considerations of this is a Level II course. Corequisite: NURS 4273. Prerequisite: Completion of Level I courses.

NURS4273 Professional Role Implementation V: Manager (Sp, Fa) Students will apply the theoretical principles learned in NURS 4263 to the delivery of care to older adults in a variety of settings. The manager will be emphasized. This is a Level II course. Prerequisite: Completion of Level I courses.

NURS4443 Nursing Concepts: Critical Care (Sp, Fa) This course focuses on alterations in biopsychosocial function that necessitate admission to a critical care unit. A nursing framework is used to emphasize the role of the nurse in clinical assessment, diagnosis, therapeutic management, and nursing care. Nurse, caregiver, teacher, and manager roles are synthesized. This is a Level III course. Corequisite: NURS 4453. Prerequisite: Completion of Level I and II courses.

NURS4543 Professional Role Implementation VI: Role Synthesis (Sp, Fa) Focuses on role synthesis and research-based nursing practice to provide nursing care to critically ill clients. Students develop nursing skills and clinical judgment to assess, plan, implement, evaluate, and document care for critically ill clients. This is a Level III course. Corequisite: NURS 4443. Prerequisite: Completion of Level I and II courses.

NURS4603 Nursing Concepts: Community (Sp, Fa) The course focuses on the concepts and principles of 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. Prerequisite: NURS 4613. Prerequisite: Completion of Level I and II courses.

NURS4613 Professional Role Implementation VII: Role Synthesis (Fa, Sp) Application of community health concepts and the nursing process to promote 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.

NURS4741 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 and facilitates students to incorporate those roles as they enter professional practice. This is a Level III course. Prerequisite: Completion of Level I and II courses.

NURS481V Honors Special Topics in Nursing (Irregular) (1-6) This course offers the student the opportunity to pursue a concentration of study in a specialized area. Content varies. May be repeated for up to 6 hours of degree credit.

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.

NURS481V 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 3000-level nursing course or above.

NURS491V Honors 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 3000-level nursing course or above.

NURS5003 Theoretical Foundations in Nursing (Fa) This course utilizes the critical reasoning process to examine the element of nursing 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 is explored.

NURS5053 Advanced Nursing Research I (Sp) This course focuses on scientific approaches to evidence-based practice, research utilization, and outcomes evaluation for clinical practice.

NURS5053 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 a systematic investigation of a clinical problem including identifying the impact on clinical, practice, and organization outcomes. Prerequisite: NURS 5013.

NURS5053 Role Development of the Advanced Practice Clinical Nurse Specialist (Even years, 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 collaborative strategies, patient advocacy and serving as change agent for role development.

NURS5042 Advanced Concepts in Health Promotion with Diverse Populations (Odd years, Fa) Provides a theoretical basis for health promotion, risk reduction and disease prevention at the individual, family and community levels. A cross-disciplinary approach to achieve or preserve health via the development of holistic plans and interventions that address the behavioral and social factors that contribute to morbidity and mortality in diverse populations.

NURS5102 Advanced Health Assessment (Even years, Sp) Application of advanced health assessment techniques with adults within the context of the family and community. Differentiates abnormal from normal findings, interpret diagnostic tests, and use clinical reasoning to formulate diagnoses for culturally diverse populations. Emphasis placed on health promotion and disease prevention.

NURS5111 Clinical Practicum: Advanced Concepts in Health Promotion with Diverse Populations (Odd years, Fa) Clinical practice companion course for NURS 5102. Provides opportunity to develop, implement, and evaluate health promotion interventions for selected clients.

NURS5113 Advanced Pharmacology (Even years, Su) Advanced concepts and application of pharmacotherapeutic and pharmacokinetics of broad categories of agents used for disease management of individuals. Provides the student with the knowledge and skills to manage (including the prescription of pharmacologic agents) a client’s common health problems in a safe, high quality, cost-effective manner.

NURS5141 Clinical Practicum: Advanced Concepts in Health Promotion with Diverse Populations (Odd years, Fa) Prerequisite: NURS 5102. Application of advanced 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 I (Even years, Fa) Focus on utilization of advanced theories, concepts, knowledge and skill in the care of diverse adult populations with complex acute health problems. Prerequisite: All core courses.

NURS5226 Clinical Practicum: Advanced Medical-Surgical Nursing II (Even years, Fa) Focus on utilization of advanced theories, concepts, knowledge and skill in the care of diverse adult populations with complex chronic health problems. Prerequisite: NURS 5245. Prerequisite: All core courses.

NURS5234 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 diverse adult populations with complex acute health problems. Corequisite: NURS 5212. Prerequisite: All core courses.

NURS5303 Foundations of Nursing Education (Odd years, Fa) Considers the principles, philosophies, theories, and strategies of teaching, learning, and evaluation needed in nursing education.

NURS5313 Curriculum and Evaluation in Nursing Education (Even years, Sp, Su) Course focuses on the curriculum and evaluation needed for curriculum and program development and evaluation for a variety of nursing education settings.

NURS5323 Teaching in Nursing Practicum (Even years, Sp) Explores the clinical experience in the nurse educator role in both classroom and clinical settings.

NURS5579V Independent Study (Sp, Su, Fa) (1-3) Independent study designed by student with faculty advisor. May be completed as an alternative to thesis.

NURS589V Workshop (Irregular) (1-3) Practice-based topics for the advanced practice nurse.

NURS599V Seminar (Irregular) (1-3) Selected topics in nursing research and evaluation discussion format.

NURS600V Master's Thesis (Sp, Su, Fa) (1-3) Student research to fulfill degree requirement for the MSN. Prerequisite: NURS 5013 and NURS 5023.
**Course Descriptions**

**Public Administration (PADM)**

PADM5803 Quantitative Methods Analysis (Fa) Data analy- sis techniques, including descriptive and inferential statistics and packaged computer programs. Prerequisite: Graduate standing.

PADM5813 Methods in Public Management Information (Sp) Quantitative approaches to understanding of public administration and statistical tools for analysis of administrative problems and programs. Prerequisite: Graduate standing.

PADM5823 Grantwriting for the Social Sciences (Irregu- lar) This course will teach students the fundamentals of obtaining grants from local, state and federal agencies.

PADM5847 Special Topics in Public Administration (Irregu- lar) (1-3) Topic varies. May be repeated for up to 6 hours of credit.

PADM5879 Professional Development (Sp, Su, Fa) (1-6) Encompasses internships, professional projects if individual is employed full-time and not eligible for an internship, conference and workshop participation, and other activities conducive to the students development as a public service professional.

PADM5887 Directed Readings (Sp, Su, Fa) (1-3) Prerequi- site: Graduate standing.

PADM5889 Independent Research (Sp, Su, Fa) (1-3) Prerequisite: Graduate standing.

**Physical Education Activity (PEAC)**

PEAC1131 Beginning Swimming (Irregular) Includes: es- sentials of water safety; basic strokes and techniques of swimming; and diving.

PEAC1221 Beginning Jogging (Sp, Fa) Instruction and participation in jogging.

PEAC1231 Beginning Bowling (Sp, Fa) Instruction and participation in bowling.

PEAC1241 Beginning Volleyball (Irregular) Instruction and participation in volleyball.

PEAC1251 Beginning Racquetball (Sp, Fa) Instruction and participation in racquetball.

PEAC1351 Beginning Golf (Sp, Fa) Instruction and participa- tion in golf.

PEAC1391 Fitness Walking (Sp, Fa) Instruction and participa- tion in vigorous walking for cardiovascular development and improvement.

PEAC1401 Beginning Gymnastics for Men’s Apparatus (Irregular) Instruction and participation in gymnastics in men’s apparatus.

PEAC1411 Beginning Gymnastics for Women’s Apparatus (Irregular) Instruction and participation in gymnastics with women’s apparatus.

PEAC1431 Beginning Tennis (Sp, Fa) Instruction and partici- pation in tennis.

PEAC1471 Beginning Badminton (Fa) Instruction and participation in badminton.

PEAC1481 Beginning Archery (Irregular) Instruction and participation in archery.

PEAC1621 Fitness Concepts (Sp, Fa) Acquaints students with a basic knowledge, understanding, and value of physical activity as related to optimal wellness.

PEAC1661 Weight Training (Sp, Fa) Instruction and participa- tion in weight training.

PEAC1801 Aerobic Dance I (Irregular) The fundamentals of aerobic dance as a physical fitness program.

PEAC1831 Beginning Scuba Diving (Sp, Fa) Instruction and participation in scuba diving. Corequisite: Drill component.

PEAC1901 Special Topics (Irregular) Instruction and participa- tion in special activity. May be repeated for up to 4 hours of degree credit.

PEAC2241 Intermediate Volleyball (Irregular) A continuation of the study and practice of volleyball fundamentals with emphasis on advanced skills and strategies. Prerequisite: PEAC 1241.

PEAC2421 Intermediate Tumbling (Irregular) The fundamen- tals of tumbling from basic rolls and balances to aerial movement and combinations. Prerequisite: PEAC 1401 and PEAC 1411.

**Persian (PERS)**

PERS1015 Intensive Persian I (Irregular) This course is designed for students of beginning Persian. The major objectives of the course are to develop listening, speaking, reading, and writing skills through the study of authentic aural, written, and visual texts and through in-class communicative activities; to explore historical, literary, and artistic manifestations of Iranian culture.

PERS2016 Intensive Persian II (Irregular) This course is an intermediate course designed to increase reading efficiency through
PHED1003 The Physical Education Profession: An Overview (Sp, Fa) An introduction to the teaching of physical education. (Same as CATE 1001.CED 1011)

PHED2013 Teaching Prognoses and Assessment of Basic Skills (Sp, Fa) This course serves as an introduction to motor skill acquisition and analysis of skill acquisition and analysis of skill componentry. Corequisites: PHED 2002 and PHED 3032. Prerequisite: Junior standing.

PHED2013 Teaching Progessions and Assessment of Advanced Skills (Sp, Fa) This course is designed to teach the programmer and the phys ed teacher in motor and sport skills. Specific emphasis is on the commonalities of various motor skills that apply to various sport movements. Prerequisite: PHED 2013.

PHED3001 Practicum I (Sp, Fa) All 5-year teaching option majors serve as teaching assistants in 1 physical education or dance education class under an experienced teacher. Prerequisite: Junior standing.

PHED3002 Teaching and Leading Outdoor Recreation and Environmental Activities (Sp, Fa) This course is designed to provide 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. Corequisites: PHED 3002. Prerequisites: PHED 1003, PHED 2013 and junior standing.

PHED3002 Teaching and Leading Outdoor Recreation and Environmental Activities (Sp, Fa) This course is designed to teach the programmer and the phys ed teacher in motor and sport skills. Specific emphasis is on the commonalities of various motor skills that apply to various sport movements. Prerequisite: PHED 2013.

PHED3002 Practicum II (Sp, Fa) All 5-year teaching option majors serve as teaching assistants in 1 physical education or dance education class under an experienced teacher. Prerequisite: Junior standing.

PHED3007 Foundation physical education majors how to perform, teach, develop and implement physical education activities. Corequisites: PHED 3007. Prerequisite: PHED 1003 or KINS 1013 and PHED 2013 and junior standing.

PHED3007 Foundation physical education majors how to perform, teach, develop and implement physical education activities. Corequisites: PHED 3007. Prerequisite: PHED 1003 or KINS 1013 and PHED 2013 and junior standing.

PHIL1003 Philosophy and the Christian Faith (Irregular) This course will deal with philosophical issues that arise in Christian theology. Topics to be discussed may include the doctrines 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, Fa, Su) (1-6) PHIL3923H Honors Colloquium (Sp, Fa) Treats a special topic of issue offered as part of the honors program. Prerequisite: honors candidacy (not restricted to candidacy in philosophy). (Same as PHIL 3933)

PHIL3933 Special Studies (Irregular) A course (not inde-

PHIL3933 Special Studies (Irregular) A course (not inde-

PHIL3943 Philosophy and Physics (Irregular) Examination of the metaphysical and epistemological implications of specific physical theories with an emphasis on modern physics. Topics covered may include the nature of space and time (particularly as described in relativistic theory), the nature of the quantum mechanical world, and the temporal asymmetries found in thermodynamics and other areas of physics. Prerequisite: PHIL 2003, 3002.

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 to help the student to sharpen his or her philosophical skills by, e.g., writing short papers, giving class presentations, and writing a substantial final essay. Prerequisite: 21 hours of philosophy.

PHIL399V Honors Course (Sp, Fa, Su) (1-6) Prerequisite: Honors Colloquium. May be repeated for up to 12 hours of degree credit.

PHIL4003 Ancient Greek Philosophy (Fa) Pre-Socrates, Socrates, Plato, and Aristotle. Prerequisite: 3 hours of philosophy.

PHIL4013 Platonicism & Origin of Christian Theology (Sp) The study of Plato, Middle Platonicism, and Neoplatonism, including Philo, 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 also Pseudo-Dionysius. Prerequisite: 3 hours of philosophy.

PHIL4023 Medieval Philosophy (Fa) Includes Augustine, Bonaventure, Aquinas, Scott, and Ockham.

PHIL4033 Modern Philosophy-17th and 18th Centuries (Sp) The study of British and Continental Rationalists and Empiricists, Spinoza, Leibniz, Hobbes, Locke, Berkeley, Hume, and Kant.

PHIL4043 Nineteenth Century Continental Philosophy (Sp) Study of major Continental European philosophers of the 19th century including Hegel, Marx, Nietzsche, 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 philosophy. 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.

PHIL4073 History of Analytic Philosophy (Sp) From Frege to recent figures, including Russell, Moore, Wittgenstein, Schlick, Carnap, Ayer, Perry, 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 notions of the human condition, and their views on the meaning and significance of life and death.

PHIL4093 Special Topics in Philosophy (Irregular) This course will cover subject matter not covered in regularly offered courses. May be repeated for up to 6 hours of degree credit.

PHIL4103 Social and Political Philosophy (Sp) Studies philosophical theories of society, the state, social justice, and their connections with individuals.

PHIL4123 Classical Ethical Theory (Fa) Study of classical
PHYS1433 Thermal Physics (Even years, Sp) Equilibrium thermodynamics, statistical physics, and kinetic energy. Prerequisite: PHYS 3841.

PHYS3621L Modern Physics Laboratory I (Formerly PHYS 4621L) Advanced experiments, projects, and techniques in elementary, nuclear, and solid state physics. Prerequisite: PHYS 3841.

PHYS4734 Introduction to Laser Physics (Sp) A combined lecture/laboratory course covering the theory of laser operation, laser phenomena, and semiconductor laser fabrication. Prerequisite: PHYS 3841.
solid state, semiconductor and chemical lasers, and laser applica-
tions. Prerequisite: PHYS 3414 and PHYS 3444.

PHY5403 Mathematical Physics (Irregular) Development of mathematical tools to study physical theories, including tensors, matrices, group theory, special functions and operators. Prerequisite: MATH 3404.

PHY5489 Senior Thesis (Sp, Su, Fa) (1-6)
PHY5491 Physics Senior Seminar (Sp, Su, Fa) Student mastery of the principles of physics are assessed by means of research paper writing and an examination chosen by the faculty. The research paper may be used to satisfy the Fulbright College writing requirement. (Required of all B.S. and B.A. physics majors in their last year.)

PHY5500V Seminar (Sp, Su, Fa) (1-3) Regular informal discussions of research reported in journals and monographs. May be repeated for up to 3 hours of degree credit.

PHY5501 Introduction to Current Physics Research Seminar (Fa) This seminar introduces new physics graduate students to the faculty of the Physics Department and their current research. This seminar will also be introduced to scientific ethics, and learn communication skills.

PHY5502 Individual Study in Advanced Physics (Sp, Fa) (1-4) Guided study in current literature. May be repeated for up to 4 hours of degree credit.

PHY5503 Design and Fabrication of Scientific Apparatu-
s (Su) Students will learn mechanical and electronic techniques used in the design and fabrication of scientific apparatus. (This course cannot be used to satisfy degree requirements in any physics program.)

PHY5504 Journal Club Seminar (Sp) In this seminar, the students will present talks based on published research articles. The goal of the course is to develop knowledge and skills in the students. Effective literature search techniques will also be covered.

PHY5506 Mathematical Methods for Electromagnetics (Fa) Mathematical methods used in physics with examples from electrodynamics and magnetostatics. Prerequisite: MATH 3433 and PHYS 3414.

PHY5509 Applications of Group Theory to Physics (Sp) Application of group theory to topics in physics, especially to atomic/ molecular and solid-state physics. Prerequisite: PHYS 5073.

PHY5513 Advanced Mechanical (Fa) Dynamics of particles and rigid bodies. Hamilton's equations and canonical variables. Canonical transformations. Small oscillations. Prerequisite: PHYS 5073.

PHY5533 Electrodynamic (Sp) Wave solutions of Maxwell's equations in free space, wave guides, and resonators; radiation, diffraction and scattering of E and M waves; special relativity and the relativistic formulation of Maxwell's equations. Prerequisites: PHYS 3414 and PHYS 5073.

PHY5536 Computational and Numerical Methods (Fa) An introduction to numerical methods used in solving various problems in engineering and the sciences. May not earn credit for this course and MATH 4303 or MATH 4383. (Same as MATH 5336.)

PHY5541 Quantum Mechanics I (Fa) Non-relativistic quantum mechanics; the Schrodinger equation; the Heisenberg matrix representation; operator formalism; transformation theory; spinors and Pauli theory; the Dirac equation; applications to atoms and molecules; collision theory; and semiclassical theory of radiation. Prerequisite: PHYS 4073.

PHY5544 Quantum Mechanics II (Sp) Continuation of PHYS 5413 Prerequisite: PHYS 5413.

PHY5553 Atomic and Molecular Physics (Odd years, Sp) Survey of atomic and molecular physics with emphasis on the electronic structure and spectroscopy of 1 and 2 electron atoms and diatomic molecules. Includes fine and hyperfine structure, Zeeman and Stark mixing of states, collision phenomena, quantum well structures, and other optically important materials. Prerequisites: PHYS 3414 and PHYS 5444.

PHY55523 Theory of Relativity (Irregular) Conceptual and mathematical foundations of special and general relativity and the general and relativistic theories of gravity with selected applications. Critical analysis of Newtonian mechanics; relativistic mechanics and electrodynamics; tensor analysis; continu-
ous media, and gravitational theory. Prerequisite: PHYS 5103.

PHY55613 Introduction to Biophysics and Biophysical Techniques (Sp, Fa) Origins of biophysics, biological polymers and polymer physics, properties of DNA and proteins, techniques to study DNA and proteins, biological membrane and ion channels, biophysical energy; experimental techniques to study single DNA and proteins. Two experiments are included: (1) DNA Gel electrophoresis; (2) Measurement of double stranded DNA melting point.


PHY55713 Condensed Matter Physics I (Sp, Fa) The course covers the Drude theory and the Sommerfeld model of metals, crystal lattices, reciprocal lattices, X-ray diffraction. Bloch's theory of electrons in periodic potential, formation of band gap, lattice vibra-
tion, and cohesive energy in solids. Prerequisite: PHYS 5413.

PHY55723 Physics at the Nanoscale (Sp) This is a cross-
disciplinary course that is focused on teaching nanoscience and engineering by studying surface science, the building and analysis of quasi-one-dimensional and singular quantum systems using nanoscale processes. Students will achieve an integrated knowledge of the concepts of surface science, quantum mechanics, nano processing and manipulation, and techniques of materials research. (Same as MPHY 5720.)

PHY55734 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. Prerequis-
ite: PHYS 3414 and PHYS 3444.

PHY5574V Internship in College or University Teach-
ing (Sp, Su, Fa) (3-9) Supervised field experiences in student personnel services, human resource management and college physics teaching, institutional research, development, or other areas of college and university work. Pre-amor Corequisite: PHYS 400. May be repeated for up to 3 hours of degree credit.

PHY55754 Applied Nonlinear Optics (Even years, Fa) A combined lecture/laboratory course. Topics include: practical optical processes, such as electro-optic effects, acousto-optic effects, narrow-band optical filters, second harmonic generation, parametric amplification and oscillation in nonlinear optics, and coherence phenomena. This course covers optical processes. Prerequisite: PHYS 3414 and PHYS 400. May be repeated for up to 3 hours of degree credit.

PHY55773 Introductory Materials Science (Sp) This course covers crystal symmetry optical transmission and absorption, light scattering (Raman and Brillouin) optical constants, carrier mobility, and polarization effects in semi-conductors, X-rays, neutrons, and other optically important materials. Prerequi-
site: PHYS 3414 and PHYS 3454 or Permission of Instructor.

PHY5588V Selected Topics in Experimental Physics (Ir-
regular) (1-3) May be repeated for up to 3 hours of degree credit.

PHY55890 Master of Arts Research (Sp, Su, Fa) (1-4) Master of Science Research (Sp, Su, Fa) (1-4) Quantum Mechanics III (Even years, Fa) Relativ-
ist quantum mechanics, second quantization, with applications to quantum electrodynamics and to many-body theory. Introduction to Feynman diagrams. Prerequisite: PHYS 5423.

PHY55613 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.

PHY55633 Conceptual Physics (Sp, Su, Fa) Properties of light and its interaction with atoms, particular attention given to the laser and recent experiments. Classical theory of resonance; Optical Bloch Equations; two level systems in steady fields; pulse propagation; semiconductor optics; quantum phenomena; coherent functions; gas, solid, and dye lasers; photon echoes and superRadiation; quantum electrodynamics and spontaneous emission. Prerequisite: PHYS 5413 or equivalent.

PHY56113 Introduction to Biophysics and Biophysical Techniques (Sp, Fa) Origins of biophysics, biological polymers and polymer physics, properties of DNA and proteins, techniques to study DNA and proteins, biological membrane and ion channels, biophysical energy; experimental techniques to study single DNA and proteins. Two experiments are included: (1) DNA Gel electrophoresis; (2) Measurement of double stranded DNA melting point.

PHY56134 Quantum Mechanics III (Even years, Fa) Relativ-
ist quantum mechanics, second quantization, with applications to quantum electrodynamics and to many-body theory. Introduction to Feynman diagrams. Prerequisite: PHYS 5423.

PHY5613 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.

PHY56134 Quantum Mechanics III (Even years, Fa) Relativ-
ist quantum mechanics, second quantization, with applications to quantum electrodynamics and to many-body theory. Introduction to Feynman diagrams. Prerequisite: PHYS 5423.

PHY5613 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.

PHY56134 Quantum Mechanics III (Even years, Fa) Relativ-
ist quantum mechanics, second quantization, with applications to quantum electrodynamics and to many-body theory. Introduction to Feynman diagrams. Prerequisite: PHYS 5423.

PHY5613 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.
complexes and control. Lecture 2 hours, laboratory 2 hours per week. Corequisite: Lab component. Prerequisite: Graduate standing.

PLSC4283 Federalism and Intergovernmental Relations (Even years, Sp) Analysis of changes in intergovernmental relations beyond the course offering available in that field. Emphasis is placed on the most recent federal election. Prerequisite: PLSC 2003 or PLSC 2013.

PLSC4293 African American Politics (Fa) Analysis of political action and concepts of political activity by minority groups, including political participation in Black America. (Same as AAST 4293)

PLSC4303 History of Political Parties in the U.S. 1789-1989 (Even years, Fa) Origin and development of the American party system from the implementation of the Constitution to the election ofMcKinley. (Same as HIST 4433, HIST 4503)

PLSC4313 History of Political Parties in the United States Since 1896 (Odd years, Sp) Response of the party system to America’s emergence as an industrial nation and world power from the Panic of 1893 to present. (Same as HIST 4533)

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)

PLSC4522 Global Politics of Food (Irregular) 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) Development and evolution of Russian politics from 1917 and of the democratization of Russia and the other successor states. Prerequisite: PLSC 203 or PLSC 2013.

PLSC4573 Gender and Politics (Irregular) Examines the significance of gender in politics. Includes discussion of the women’s movement and feminist theory, 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 203 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 realm. Addresses such questions as the role of Islamic law, visions of the Islamic state, and relations between nationalism, religion, and political development. Focus on Middle East political trends. Prerequisite: Honors candidacy in political science.

PLSC4873 Inter-American Politics (Irregular) An analysis of the 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 writings, students will also explore his life, times, and legacy. (Same as ANTH 4923)

PLSC498V Senior Thesis (Sp, Su, Fa) (1-6) Not part of the 30 hour requirement for the major. May be repeated for up to 6 hours of degree credit.

PLSC5113 Seminar in Human Resource Management (Fa) Seminar in human resource management, with special emphasis on the role of the judiciary in the American political system and the political process of judicial decision-making. Prerequisite: Graduate standing.

PLSC5183 Modern European Political Thought (Fa) Course designed to provide students with a comprehensive overview of the main themes, regional organization, and hemispheric relations of inter-American politics. Prerequisite: Graduate standing.

PLSC5203 American Political Parties (Irregular) Thorough examination of the constitutional role of the legislative branch under the Constitution with special emphasis on the Senate and the House; the central place of Congress in shaping domestic and foreign policy. Prerequisite: Graduate standing.

PLSC5233 The American Congress (Fa) Course designed to provide students with a comprehensive overview of the main themes, regional organization, and hemispheric relations of inter-American politics. Prerequisite: Graduate standing.

PLSC5253 The U.S. Constitution I (Sp) Analysis of the fundamental literature and a systematic analysis of classical and contemporary theories of democracy. Prerequisite: Honors candidacy in political science.

PLSC540V Special Topics (Irregular) (1-3) Topics in political science not usually covered in other courses.

PLSC5413 Administrative Law (Sp) Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision-making. Emphasis is given to the limitation of administrative discretion and the judicial review of administrative decision. Prerequisite: PLSC 2103 or PLSC 4523.

PLSC5425 The U.S. Constitution II (Fa) The nature function, and history of political parties in the United States with emphasis on party membership, organization, campaign techniques, finance and electoral alliances. Prerequisite: PLSC 2003.

PLSC5431 Constitutional Interpretations (Irregular) This course examines the American electoral process. It is an empirical course that provides opportunities for original analysis of survey data and election returns. Emphasis is placed on the most recent federal election.

PLSC5432 The American Chief Executive (Sp) 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.

PLSC5443 Minority Politics (Even years, Sp) Reviews political action and concepts of political activity by minority groups, focusing on contemporary political behavior.

PLSC5444 American Political Parties (Irregular) Analysis and comparison of classical and contemporary theories of democracy.

PLSC5453 Islamic Political Movements (Fa) An analysis of the political environment. (Same as COMM 4373)

PLSC5463 Government and Politics of Russia (Even years, Sp) Development and evolution of Russian politics from 1917 and of the democratization of Russia and the other successor states. Prerequisite: PLSC 203 or PLSC 2013.

PLSC5473 Gender and Politics (Irregular) Examines the significance of gender in politics. Includes discussion of the women’s movement and feminist theory, 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 203 or PLSC 2013.

PLSC5483 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 illustrate how political and state actions have shaped and been shaped by the development of the global economy.

PLSC5483 The Middle East in World Affairs (Sp) An analysis of geo-political and socio-economic characteristics of Middle Eastern societies and their impact on world economic and political order. Special attention to such issues as the Arab-Israeli conflict, the role of lasting peace in the region in world politics, the involvement of superpowers, rehabilitation of Palestinian refugees and the role of the United Nations.

PLSC5483 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 illustrate how political and state actions have shaped and been shaped by the development of the global economy.

PLSC5493 Islam and Politics (Fa) Compares contemporary Islamist political movements. Seeks to explain causes, debates, agendas, and strategies of Islamists in the political realm. Addresses such questions as the role of Islamic law, visions of the Islamic state, and relations between nationalism, religion, and political development. Focus on Middle East political trends. Prerequisite: Honors candidacy in political science.


PLSC5530 Women's Rights and Gender Politics in Latin America (Odd years, Sp) An examination of women’s rights and gender politics in Latin America political movements and institutions with special attention to patterns and problems of political change and development in that area. Prerequisite: PLSC 2003.

PLSC5532 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, social identity, social class, and political identity.

PLSC5533 Economics of European Integration (Sp) Analysis of the economic dimension of public personnel systems. Prerequisite: PLSC 2003 or PLSC 2013.

PLSC5534 Politics of Church and State in Latin America (Fa) An examination of the interaction between politics and markets in the world economy. Its central objective is to illustrate how political and state actions have shaped and been shaped by the development of the global economy.
the budgeting process and governmental fiscal policy formulation, adoption, and execution. Prerequisite: Graduate standing.

PLSC592V Internship in Political Science (Sp, Su, Fa) (1-6) Supervised work experience with private or government organizations to introduce students to professional areas of work in public policy. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.

PLSC590V Directed Readings in Political Science (Sp, Su, Fa) (1-9) Special problems in the politics of contemporary issues. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

PLSC5853 Issues in Public and Nonprofit Management (Sp) (3) Current developments in public administration will be discussed with emphasis on practical applications in public and nonprofit management. Prerequisite: Graduate standing.

PLSC5843 Poultry Breeding (Odd years, Fa) (3) Students will be introduced to biological sciences associated with poultry and to career areas in poultry. Topics include genetics, reproductive and digestive anatomy, egg formation and embryology, physiology, housing, and ventilation. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: BIOL 1543.

PLSC5833 Seminar in Contemporary Problems (Fa) (3) The seminar will be concerned with selected topics in international relations, the comparative study of foreign policy making, and international organizations. Prerequisite: Graduate standing.

PLSC5823 Comparative Politics of the Middle East (Sp, Su, Fa) (3) The major lines of inquiry on the politics of the state and society in the context of endogenous and exogenous forces that have influenced concepts of power, legitimacy, and identity. Prerequisite: Graduate standing.

PLSC5822 Political Science of Social Change (Sp) (3) Analysis of social change and the role of state institutions. Topics include social theory, political economy, the sociology of knowledge, political perception and action, and social policy. Prerequisite: Graduate standing.

PLSC5813 Seminar in International Law and Relations Among International Political Systems (Odd years, Sp) (3) This course provides an overview of the principal management functions in public and nonprofit organizations. Topics include financial management, HR development, program development, and evaluation. Techniques of decision-making, fund raising, public relations, and program personnel are analyzed, and the complex environments with service sector agencies are explored.

PLSC5813 Seminar in Community Development (Irregular) (3) An in-depth analysis of specific political phenomena in the contemporary world. Topics not covered in other courses or a more intensive study of specific topics in poultry science. Prerequisite: POSC 1023.

POSC5600 Diploma in Political Science (Sp) (1-6) A selection of topics to provide the theoretical, conceptual and methodological foundation for the analysis of contemporary political systems. Prerequisite: Graduate standing.

POSC1023 Introduction to Poultry Science and Careers (Sp) (3) Students will be introduced to biological sciences associated with poultry and to career areas in poultry. Topics include genetics, reproductive and digestive anatomy, egg formation and embryology, physiology, housing, and ventilation. Lecture 2 hours, laboratory 3 hours per week. Corequisite: Lab component. Prerequisite: BIOL 1543.

POSC400V Special Problems (Sp, Su, Fa) (1-9) Special problems in the politics of contemporary issues. Prerequisite: Graduate standing. May be repeated for up to 3 hours of degree credit.

POSC401V Internship in Poultry Science (Sp, Su, Fa) (1-6) Supervised work experience with private or government organizations to introduce students to professional areas of work in poultry science. Prerequisite: Junior standing. May be repeated for up to 6 hours of degree credit.
Course Descriptions

PSYC5133 Inferential Statistics for Psychology (Fa)
Inferential statistics, including representative parametric tests of significance, risk management, and diagnostic tests for selecting parametric and nonparametric tests. Emphasis on understanding the role of statistics in psychological research. Prerequisite: PSYC 2013 or STAT 2013.

PSYC5134 Advanced Descriptive Statistics for Psychology (Sp)
This course introduces students to advanced statistical techniques for analyzing data and interpreting results. Topics include correlation, regression, and advanced techniques such as ANOVA and MANOVA. Prerequisite: PSYC 2013 or STAT 2013.

PSYC5135 Advanced History and Systems of Psychology (Fa)
Advanced examination of the field's history and systems, including the major theoretical traditions. The course also focuses on contemporary trends and issues in psychology. Prerequisite: PSYC 2013.

PSYC5237 Research Practicum (Sp, Fa) (1-3)
Presentation of research, evaluation, and discussion of on-going research projects. Required of all graduate students in their first year of graduate study. Prerequisite: PSYC 5131.

PSYC5313 Introduction to Clinical Science: Research Design and Ethical Guidelines (Fa)
Provides guidelines for designing and conducting research in clinical psychology. Topics include research design, data collection, and ethical considerations. Prerequisite: PSYC 5131.

PSYC5600V Master's Thesis (Sp, Su, Fa) (1-6)
The course provides an opportunity for students to develop and conduct a comprehensive research project under the supervision of a faculty advisor. Prerequisite: Admission to the Master's program.

PSYC5602V Seminar: Teaching Psychology (Sp, Fa) (1-3)
Survey of current topics in the teaching and learning in higher education. Students will plan, implement, and evaluate teaching strategies. Prerequisite: Teaching assistant.

PSYC607V Clinical Practicum III (Sp, Fa) (1-3)
Provides supervised experience in the application of the more complex and lesser known psychodiagnostic techniques and training and experience in psychopharmacological techniques with the more severe functional disorders. Level of responsibility and independence to increase as students progress. Prerequisite: PSYC 5073; Enrollment in the Psychology graduate program.

PSYC608V Clinical Practicum IV (Sp, Fa) (1-3)
Provides supervised experience in the application of the more complex and lesser known psychodiagnostic techniques and training and experience in psychopharmacological techniques with the more severe functional disorders. Level of responsibility and independence to increase as students progress. Prerequisite: PSYC 5073; Enrollment in the Psychology graduate program.

PSYC609V Clinical Graduate Seminar (Sp, Fa) (1-3)
This seminar is designed to provide graduate students with the opportunity to analyze and discuss current research in psychology. Prerequisite: PSYC 5073; Enrollment in the Clinical Psychology graduate program.

PSYC611V Individual Research (Sp, Su, Fa) (1-18)
May be repeated for up to 18 hours of degree credit.

PSYC6133 Advanced Behavioral Neuroscience (Fa)
Examination of the biological basis of behavior, with emphasis on underlying neural mechanisms. Prerequisite: PSYC 5033.

PSYC6163 Psychotherapy (Sp)
A conceptual overview of psychotherapy, with an emphasis on a) constructivist and Gestalt therapy, and b) cognitive and interpersonal approaches. Prerequisite: PSYC 5033.

PSYC6203V Seminar: Teaching Psychology (Sp, Fa) (1-3)
Survey of current topics in the teaching and learning in higher education. Students will plan, implement, and evaluate teaching strategies. Prerequisite: Teaching assistant.

PSYC6343 Seminar in Quantitative Methods (Irregular)
Discusses statistical and mathematical approaches to theorizing and research in psychology. Emphasis will be on generalization of a given approach across several content areas of psychology. While each area must be treated in a reasonable depth, current thinking and research spanning more than one content area will be stressed.

PSYC6353 Seminar in Learning/Memory/Cognition (Odd years, Sp)
Discussion of selected topics in learning, memory, or cognition. Emphasis on current theory and empirical research. Topics selected for discussion may be in the areas of learning, memory, problem solving, or language. Prerequisite: PSYC 5373.

PSY669VF Field Work (Sp, Su, Fa) (1-3)
Provides academic credit for field work. Open to any of the advanced graduate programs in the area of psychology. Prerequisite: Candidacy.

PSYC699V Clinical Psychology Internship (Sp, Su, Fa) (1-18)
Prerequisite: Candidacy.

Plant Sciences (PTSC)

PTSC6101 Colloquium in Plant Sciences (Sp)
Advanced discussion of topics in plant science, including current research. Prerequisite: Graduate standing. May be repeated for up to 3 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: Graduation 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, the research, the dissertation process, and particular issues of public policy concern. Prerequisite: Admission to program.

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 processes 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. Prerequisite: PUBP 6103 Policy (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 newer approaches to practice-driven scholarship. The class will examine innovative approaches to decision making, strategic planning and policy leadership in complex interorganizational and interagency settings.

PUBP6113 Agenda Setting and Policy Formulation (Irregular) (1-3)
This course is a seminar on agenda and policy formulation focusing on the classic theoretical and empirical literature. The course is designed to introduce graduate students to a variety of theories, concepts, and ideas relating to the study of public policy. Prerequisite: PUBP 6127 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 designed to integrate various policy interests in a specific community-based project.

PUBP700V Doctoral Dissertation (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 (Sp, Fa)
An analysis of the historical and philosophical development of recreation and leisure. Theories of play, recreation, and leisure are studied. Prerequisite: Candidacy. Topics are examined as these influence recreation, parks, and leisure services 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 for outdoor recreation with consideration of multiple use, environmental impact and management, and other current considerations. Field visits will be required as part of the class, including a weekend outing.

RECR201V Recreation Practicum (Sp, Su, Fa) (1-3)
Students are assigned to assist with the development of programs for exposure to organizational structure, services, and programming of cooperating recreational agencies. Students may take 1-3 hours per semester; each credit hour is a 4.5-hour experience. Students must complete 3 different experiences before internship. Prerequisite: RECR 1003.

RECR2063 The Commercial Recreation and Tourism Enterprise (Fa)
Examination of the commercial recreation and leisure industries. The operational aspects which contribute to the development of recreation businesses will be studied. Case study and field investigation methods will be emphasized.

RECR2093 Inclusive and Special Recreation (Sp)
An introduction to the basic concepts of inclusive and special recreation services integrated with knowledge and skill sets required to provide accessible recreation and leisure programming for people with disabilities.

RECR3138 Leadership Techniques in Recreation (Fa)
Development of knowledge related to leadership theory, group dynamics, and face-to-face leadership techniques. Students gain an understanding of leadership theories as they are applied in a field setting.

RECR2853 Leisure and Society (Sp, Fa)
This course is an examination of leisure and its effect on society. Course content includes identification and exploration of motivating factors related to leisure and contemporary leisure expressions as it occurs across diverse populations.

RECR2853H Honors Leisure and Society (Sp, Fa)
This course is an examination of leisure and its effect on society. Course content includes identification and exploration of motivating factors related to leisure and contemporary leisure expressions as it occurs across diverse populations.

RECR3012 Officiating Basketball, Softball, and Baseball (Irregular)
Provides individuals with the basic knowledge of sport rules and mechanics of officiating basketball, softball, and baseball.

RECR3023 Sport Management Fundamentals (Fa)
This course is designed to present an overview of the fundamentals relating to sport management courses at the undergraduate level, as well as issues facing sport organizations and how management techniques can be applied to solve sport business problems. A description of career opportunities in sport will be presented with special interest in helping the student design a course of study that best meets his/her goals. Prerequisite: RECR 1003.

RECR3833 Program Planning in Recreation (Sp)
Development of the fundamentals of program planning using modern techniques of identifying and analyzing program needs, client size, and community needs. Includes program development and application with a variety of population groups and representative leisure service areas.

RECR3843 Planning, Design, and Maintenance for Recreation (Sp)
Principle considerations, design, and maintenance techniques are emphasized. Also, technical design concepts and firsthand experiences in maintenance of facilities are included.

RECR3867 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 3823)

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 are emphasized. Certification at the instructor 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.

RECR4063 Research and Evaluation in Recreation (Sp) An introduction to the applied methods and techniques of research and evaluation in leisure studies and services. General consideration given to research applications such as needs assessment, program evaluation, and marketing studies. Emphasis placed on the logic of research and data analysis.

RECR440V Internship (Sp, Su, Fa) (1-12)
This experiential based course requires 40 hours per week of work in an approved agency for a full semester. It is recommended that students register for this course as soon after completion of their course work.

RECR4480V Workshop (Irregular) (1-3)
May be repeated for up to 3 hours of degree credit.
Techniques with specific content areas in the class will be explored by undergraduate recreation class serving as the teaching laboratory. Discusses political aspects of professions both outside and inside within these laws; and methods for influencing new legislation. Also of major legislation affecting HKRD professions; how to operate community. Specific strategies for promoting recreation programs in the local organization, administrative practices, program financing, personnel, and skill training in such areas as orienteering and rock climbing; and leadership development in interpersonal and processing skills. The student is expected to critically examine and discuss each issue of the recreation field. This course advances the student's knowledge of issues and administration, units of competition, program of activities, schedule making, plans, rules and regulations, awards, and special administrative problems. This course considers the scope of outdoor recreation programs, leadership and skill development with practical experience in a wilderness environment. The course will include a canoe trip through the wilderness, and skill training in such areas as orienteering and rock climbing; and leadership development in interpersonal and processing skills. The student is expected to critically examine and discuss each issue of the recreation field. This course advances the student's knowledge of issues and administration, units of competition, program of activities, schedule making, plans, rules and regulations, awards, and special administrative problems.
Course Descriptions

SCWK3533 Legal Aspects of Social Welfare (Fa) A study of the legal aspects of social welfare, focusing on the role of the social worker in the court system, legal rights of indigent persons and children, domestic relations, problems of the small wage earner, and health measures. Prerequisite: Junior standing.

SCWK4444 Field Seminar II (Sp, Su, Fa) Study of the needs of deprived children with some attention to methods and standards of care. Cultural competence and family-centered practice are emphasized.

SCWK4405V Honors Course (Irregular) (1-18) Prerequisite: Junior standing. May be repeated for up to 12 hours of degree credit.

SCWK4073 Social Work Research and Technology 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 be proficient in the use of current technology for social work research and practice. Pre- or Corequisite: One of the following: STAT 2301, SOC 3303/301L, PSYC 2013, or EDFD 2403. Prerequisite: Computer literacy.

SCWK4093 Human Behavior and the Social Environment I (Sp, Fa) (formerly SCWK 3093) Provides a conceptual framework for knowledge about human behavior and the social environment with a focus on individuals. 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 or maintain optimal health and well-being. Prerequisite: PSYC 2003, SOC 2103, SCWK 2133, and SCWK 3193 (and BIOL 1540 and BIOL 1541L, or ANTH 1013 and ANTH 1011L).

SCWK4103 Human Behavior and the Social Environment II (Sp, Fa) An introduction to the biopsychosocial model based on the knowledge base and the impact on human populations. Childhood development within addictions 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 on behalf of those groups designed to improve social conditions, promote social and economic justice, and to empower at-risk populations. Prerequisite: PLSC 2003, SCWK 2133, and SCWK 3193.

SCWK4163 Elderly Citizen (Sp, Fa) Survey of theories of aging and the needs of the elderly. Prerequisites: SCWK 34233 Seminar; Children and Family Services (Fa)

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 focuses on developing a solid foundation for practice with individuals, including learning basic communication and helping skills, values, principles, and the connection of theory to practice. Pre- or Corequisite: SCWK 4093 and SCWK 4153.

SCWK4343 Social Work Practice II (Sp, Fa) This is the second course in the social work practice sequence, emphasizing theories, models, and techniques related to generalist practice with families and groups. The course elaborates on system theory as it impacts groups and families, and use of experiential teaching methods. Pre- or Corequisite: SCWK 4103 and SCWK 4333.

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 4434 and 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. Prerequisite: SCWK majors only.

SCWK4434 Field Seminar III (Sp, Su, Fa) Arranged in connection with social service agencies. Credit is based on completion of all course objectives, including a minimum of 225 hours of field work under the supervision of a licensed social worker.

SCWK5183 Advanced Practice with Individuals (Sp) This course focuses on developing advanced 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 clients' needs and circumstances. Prerequisite: SCWK 5003 or SCWK 5013.

SCWK5193 Advanced Practice with Families and Couples (Fa) The purpose of this course is to provide 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-course strengths approaches to understand how families and couples function. Students will design interventions. Prerequisite: SCWK 5003 or SCWK 5013.

SCWK5253 Spirituality in Social Work (Sp, Fa) 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 3103 or SCWK 5013. Corequisite: SCWK 4093, SCWK 4153, SCWK 4434.

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, prepare peer supervision and consultation, and learn from the experiences of other students in the field. Corequisite: SCWK 5444.

SCWK5434 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 4903, and SCWK 4153.

SCWK5444 Field Internship III (Su) This course is required of all graduate students entering the MSW program without advanced standing. A minimum of 240 clock hours of agency-based professional social work practicum experience, supervised by a licensed MSW, is required. Corequisite: SCWK 5444. 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 5073 and SCWK 6073. Corequisite: SCWK 5073 and SCWK 6073.

SCWK6003 Advanced Practice I Using the Multi-System Life Course Perspective (Fa) In this first course of a two-semester sequence, students select a community problem, provide services to clients, and address the problem through policy analysis. A review of literature regarding theory and practice, paradigm analysis, a 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.

SCWK6010S Using the Multi-System Life Course Perspective (Sp) In this second of a two-semester sequence students provide services to social work clients. This course covers application of life course theory and multi-system and multi-sector interventions. Issues around the life course and the classroom are explored in addressing interventions through program development, a grant proposal submission, and implementation of macro interventions. Corequisite: SCWK 6673, SCWK 6645, and SCWK 6452. Prerequisite: SCWK 6673, SCWK 6073.

SCWK6073 Social Work Research and Technology III (Sp) In this final research course, students collect and analyze data as planned in the thesis proposal submitted for Research and Techno-
Sociology (SOC)

SOC2013 General Sociology (Sp, Su, Fa) Group relations, culture, personality, social institutions, collective behavior, and social change.

SOC2013H Honors General Sociology (Sp, Su, Fa) Group relations, culture, personality, social institutions, collective behavior, and social change.

SOC2033 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.

SOC2043 Marriage and the Family (Fa) A sociological analysis of marriage, courtship, and parenthood patterns including gender relations in various forms of contemporary American families.

SOC2103 Population and Society (Odd Years, Sp) The social significance of population; population distribution and composition; population trends; and problems of the population.

SOC2103 Criminology (Sp, Su, Fa) A survey of theories of crime causation, law enforcement, and problems, and prospects of the major criminological theories.

SOC2133 The Family (Sp) A sociological examination of the dynamics of the family as a social institution.

SOC2133 Population and Society (Odd Years, Sp) The social significance of population; population distribution and composition; population trends; and problems of the population.

SOC2113 Probations, and the self and interaction. Topics include exchange theory, role analysis, symbolic interactionism, social construction of reality, socialization, interpersonal competence, organizational and leadership development, social dislocation, and stress. Prerequisite: Graduate standing.

SOC5233 Theories of Deviance (Irregular) A survey of theories of the causes and consequences of deviant behavior, and the treatment programs for behaviors such as deviant responses, alcoholism, violence, and sex deviancy.

SOC5233 Sociological and Psychological Research (Sp, Fa) An introduction to binary dependent and multivariate categorical data analysis for sociological research. Prerequisite: SOC3031L and SOC5031L. Familiarity with statistical computer programs is assumed.

SOC5503 Research Internship (Sp, Fa) Supervised research experience in field setting. Prerequisite: Graduate standing.

SOC5800V Master’s Thesis (Sp, Su, Fa) (1-6)

Space and Planetary Sciences (SPAC)

SPAC300V Space & Planetary Sciences Research (Irregular) (1-3) This course covers research in space and planetary sciences performed by undergraduates in the program. Prerequisite: Junior Standing and Instructor Consent. May be repeated for up to 6 hours of credit.

SPAC400VH Honors Research in Space & Planetary Sciences (Sp, Su, Fa) (1-3) This course covers research in space and planetary sciences performed by honors undergraduates. Prerequisite: Junior standing and registration in an honors program. Corequisite: SPAC 4011H. May be repeated for up to 3 hours of credit.

SPAC4013H Honors Colloquium in SPAC (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. May be repeated for up to 6 hours of credit.

SPAC5033 Planetary Systems (Odd years, Fa) The nature of the solar system and other planetary systems as deduced from observations and theoretical models, evolution of terrestrial and jovian planets and their satellites, planetary atmospheres, magnetospheres, and the solar wind; planetary interiors, physical properties and observations of exoplanetary systems; astrobiology.

SPAC5111L Space and Planetary Lab (Fa) Laboratory course in space and planetary sciences consisting of experiments in the five major areas of space and planetary sciences: planetary atmosphere, planetary geology, planetary atmospheres, origin and evolution of life and orbital mechanics and astrophysics. Intended for students enrolled in the graduate programs in space and planetary sciences.

SPAC5123 Internship (Sp, Fa) 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 international laboratory in North America or overseas.

SPAC5161 Seminar (Sp, Fa) Seminars organized by the Arkansas-Oklahoma Center for Space and Planetary Sciences cover- ing topics on the cutting edge of research 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, and mechanical engineering.

SPAC5221 Advanced Field Seminar (Sp, Fa) Graduate seminar in the introductory course consisting of discussions and case studies in ethics, communications and public policy in the administration of space and planetary sciences. Prerequisites: Admission to program or instructor consent.
SPAC313 Planetary Atmospheres (Irregular) Origins of planetary atmospheres, structures of atmospheres, climate evolution, dynamic of atmosphere and life in the atmosphere, the upper atmosphere, escape of atmospheres, and comparative planetology of atmospheres. (Same as CHEG 3313)

SPAC4313 Geology and Evolution (Even years, Sp) Exploration of the earth 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.

SPAC 5525 Biostatistical Evolution (Odd years, Sp) Allo-istic synthesis of biomes on Earth, the origin of cells, genetic information, origin of life on Earth and elsewhere, evolution and diversity, ecological niches, bacteria, archaea, and eukaryotic, novel metabolic capabilities, the environment, life being reshaped by the environment, molecular data, and evolution. Prerequisite: CHEM 5813.

SPAC5553 Astrobiology (Even years, Sp) 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 the possibility of life on planets around other stars. Prerequisite: Instructor Consent. (Same as BDS 5553)

SPAN 5631 Asociativismo (Irregular) Study of spacecraft design and operations. Prerequisite: Admission to program or instructor consent.

SPAN600 Master’s Thesis (Sp, Su, Fa) (1-10)

SPAN700 Doctoral Dissertation (Sp, Su, Fa) (1-18)

Spanish (SPAN)

SPAN3003 Elementary Span-Ish I (Sp, Fa) Prerequisite: SPAN 1003 or SPAN 1023.

SPAN3004 Elementary Span-Ish II (Sp, Fa) Prerequisite: SPAN 1013 or SPAN 1023.

SPAN3103 Elementary Spanish II (Sp, Fa) Advanced course for native Spanish speakers. A study of literary development of reading skills and introduction to literary commentary and understanding of recent and contemporary issues in Latin American culture and art, and politics of the major Hispanic groups in the United States. Focus on contemporary attitudes and issues. Prerequisite: SPAN 3113.

SPAN3253 Latin American Cinema and Society (Irregular) This course examines the Hispanic cultural and historical experience through films, documentaries, and literary and cultural texts. Topics included are: Human Rights, Ethnicity, Gender, Revisions of the past. Prerequisite: SPAN 3113.

SPAN3333 Business Spanish II (Sp) Enhances ability to relate to Spanish-speaking business environments by providing a solid foundation in vocabulary and discourse related to functional business areas such as organization of a company structure, management, banking and accounting, investment, personnel and office systems, production of goods and services, marketing, finance, and import-export. Prerequisite: SPAN 3003.

SPAN3433 Business Spanish II (Sp) Reinforces concepts and vocabulary covered in SPAN 3433 and further enhances ability to function in a Spanish-speaking environment by providing instruction in the preparation of written documents such as form letters, com-munications, letters of credit, contracts, memoranda, letters of recom-mendation, documentation, etc. Prerequisite: SPAN 4333.

SPAN4553 Latin American Today (Odd years, Fa) An exploration of recent and contemporary issues in Latin American culture and society, including social classes, ethnicity, urbanization, family, education, religion, as well as popular culture and artistic move-ments. 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 Topics (Irregular) (1-6) May be repeated for up to 6 hours of degree credit.

SPAN4883 Indigenous Literatures (Irregular) A study of native oral narratives, literary and cultural forms in the Americas, from ancient times to the present, including the Andean Chupis, Mesoamerican Codices, and Amazonian mythic narratives. (Same as SPAN 4883)

SPAN4913 Monuments of Spanish-American Literature (Odd years, Sp) Study of representative literary works from Independence to mid-19th Century, including pre Hispanic Indigenous Literatures. Prerequisite: SPAN 3113.

SPAN4919 Survey of Spanish-American Literature II (Odd years, Sp) Survey of Spanish-American literature from Modernism to the present, including U.S. Latino literature. Prerequisite: SPAN 3113.

SPAN49213 Spanish Civilization (Sp) A wide-ranging exploration of Spanish history and culture from the Middle Ages to the present. Prerequisite: SPAN 3113.

SPAN49223 Latin American Civilization (Fa) Prerequisite: SPAN 3113.

SPAN4923 Latin America and Culture in the Hispanic United States (Sp, Su, Fa) An exploration of the history, culture, art, and politics of the major Hispanic groups in the United States. Focus on contemporary attitudes and issues. Prerequisite: SPAN 3113.

SPAN5433 Business Spanish III (Sp) Enhances ability to relate to Spanish-speaking business environments by providing a solid foundation in vocabulary and discourse related to functional business areas such as organization of a company structure, management, banking and accounting, investment, personnel and office systems, production of goods and services, marketing, finance, and import-export. Prerequisite: SPAN 3003.

SPAN5433 Business Spanish III (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, com-munications, letters of credit, contracts, memoranda, letters of recom-mendation, documentation, etc. Prerequisite: SPAN 4333.

SPAN5455 Latin America Today (Odd years, Fa) An exploration of recent and contemporary issues in Latin American culture and society, including social classes, ethnicity, urbanization, family, education, religion, as well as popular culture and artistic move-ments. Prerequisite: SPAN 3113.

SPAN5470V 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.

SPAN5475V Special Topics (Irregular) (1-6) May be repeated for up to 6 hours of degree credit.

SPAN549V 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.

SPAN5513 Biochemical Evolution (Odd years, Sp) Exploration of the distribution of life forms in the Americas, from the Andes to the Amazon. Prerequisite: SPAN 3113. (Same as SPAN 5883)

SPAN5523 Indigenous Literature (Irregular) From the ‘Jarchas’ to the ‘Cecilinas’

SPAN5533 Golden Age Novel (Irregular) Major works of Spanish prose fiction from the 16th and 17th centuries, with close reading of major works.

SPAN5543 Golden Age Poetry and Drama (Irregular) History and development of those genres in the 16th and 17th centuries, with close reading of major works.

SPAN5553 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 repre-sentative colonial and indigenous texts and their contexts including Renaissance, Baroque, and travel literature of the Eighteenth Century. The course will be taught in Spanish.

SPAN5573 Nineteenth Century Survey (Irregular) From Neocolonialism through Naturalism

SPAN5583 Nineteenth Century Drama and Poetry (Irregular) From Romanticism to the Generation of 1898

SPAN5593 19th Century Spanish American Literature (Sp, Su, Fa) Study of representative literary works from Independence (1810) to 1900’s. The course covers Neocolonialism, Romanticism, Realism/Neo-Realism, and the role of the nation in the nation-building process. The course will be taught in Spanish.

SPAN5633 Spanish American Theatre (Sp, Su, Fa) Historical examination of the theatre in Spanish America, with close analysis particularly of representative works and movements in the 20th century.

SPAN5643 Cervantes: Don Quijote (Irregular) A close read-ing of Spain’s greatest literary masterpiece.

SPAN5653 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.

SPAN5654 20th Century Spanish American Literature (Sp, Su, Fa) Critical survey of major movements and outstanding Spanish-American films of 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 single course specifically covered by the courses otherwise listed. May be repeated for up to 6 hours of degree credit.

SPAN575V Special Investigations (Irregular) (1-6) (1-6) May be repeated for up to 6 hours of degree credit.

SPAN5773 Indigenismo Literature (Irregular) A study of ‘indigenismo’, an intellectual and literary tradition in Latin America examining the history of exploitation and marginalization of indig-enuous peoples. Readings include texts by Mariategui, Icaza, Andrade, Asturias, Anguera, Castellanos, and also ‘indigenista’ works in music and the plastic art.

SPAN5863 Indigenous Literatures (Irregular) A study of native oral narratives, literary and cultural texts in the Americas, from ancient times to the present, including the Andean Chupis, Mesoamerican Codices, and Amazonian mythic narratives.

STAT1303 Introduction to Probability and Statistics (Sp, Su, Fa) A calculus-based introduction to the foundations of probability and statistics. Emphasis is placed upon understanding elementary properties of probabilities, events, statistical densities and distributions, properties of random variables, sampling, inferential statistics and their relationship to sampling and statistical inference. Prerequisite: MATH 2564.

STAT4001L Statistics Methods Laboratory (Sp, Fa) Prerequisite: STAT 2400L.

STAT4003 Biostatistics (Sp) An introductory course in biostatis-tics emphasizing methods for collecting, graphing, and understand-ing data. Special emphasis is placed on the use of exploratory and confirmatory data analysis. Particular attention is given to statistical methods for data sets with discrete variables. Pre-requisite: Corequisite: MATH 2554. Corequisite: Lab component.

STAT2203 Principles of Statistics (Sp) A problem-oriented course with applications from many fields. Emphasis on understand-ing the nature of statistical orderness implied by probability laws. Statistical analysis is treated as a means of decision making in the face of uncertainty.

STAT4001L Statistics Methods Laboratory (Sp, Fa) Prerequisite: STAT 2400L.

Statistics (STAI)
WCOB1112 Honors Legal Environment of Business (Irregular) Introduction to the legal and ethical environment in which businesses operate. Topics covered in this course include: the American legal system, regulatory environment, tort, criminal law, laws affecting contracts and property, employment law, and forms of doing business. WCOB1112H Honors Legal Environment of Business (Irregular) This is an introductory level course covering topics related to the legal and ethical environment in which businesses operate. Topics covered in this course include: the American legal system, regulatory environment, tort, criminal law, laws affecting contracts and property, employment law, and forms of doing business.

WCOB1012 Legal Environment of Business (Sp, Su, Fa) Introduction to the legal and ethical environment in which businesses operate. Prerequisite: WCOB 1012--each with a grade of “C” or better.

WCOB1012H Honors Legal Environment of Business (Irregular) Introduction to the legal and ethical environment in which businesses operate. Prerequisite: WCOB 1012--each with a grade of “C” or better.

WCOB1023 Business Foundations (Sp, Su, Fa) Surveys the areas of business and presents business processes that are common to most enterprises through a hands-on, interactive business experience. Also develops the double-entry accounting framework that captures and reports information about business process performance. Prerequisite: WCOB 1023, WCOB 1033, ECON 2023, and WCOB 1021--each with a grade of “C” or better.

WCOB1111 Freshman Business Connection (Fa) Open to freshmen and sophomore students studying abroad in officially sanctioned programs. May be repeated for up to 24 hours of degree credit.

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 1023, WCOB 1033, ECON 2023, and WCOB 1012--each with a grade of “C” or better.

WCOB2023H Honors Production and Delivery of Goods and Services (Irregular) Key decisions required to understand the existence of markets and how businesses 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.

WCOB2043 Acquiring and Managing Financial Resources (Sp, Su, Fa) Study of the process of identifying and gathering financial 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, and environmental dynamics. Prerequisite: WCOB 1023, 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 identifying and gathering financial 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, and environmental dynamics. Prerequisite: WCOB 1023, WCOB 1033, ECON 2023, and WCOB 1012--each with a grade of “C” or better.

WCOB2023H Acquiring and Managing Human Capital (Irregular) Key decisions required to understand the existence of markets and how businesses 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.

WCOB2043H Acquiring and Managing Financial Resources (Irregular) Key decisions required to understand the existence of markets and how businesses 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.

WCOB2033H Acquiring and Managing Human Capital (Irregular) Key decisions required to understand the existence of markets and how businesses 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.

WCOB2021V Special Topics in Business (Sp) (3-6) Special topics of an interdisciplinary nature. May be repeated for up to 6 hours of degree credit.

WCOB3016 Business Strategy and Planning (Sp, Fa) Integrative study of the managerial decisions; introduces students to an understanding of strategic competitiveness and the way in which business strategy is formulated and implemented; uses a combination of theoretical and experiential approaches to designing business plans for key decisions, implementing these decisions, and monitoring their effects. Prerequisite: A business student must complete the pre-business core requirements before enrolling for this course. WCOB 2023, WCOB 2023, WCOB 2023, and WCOB 3043 must each be completed with a grade of “C” or better. This course is restricted to Walton College students.

WCOB3016H Business Strategy and Planning (Fa) Integrative study of the managerial decisions; introduces students to an understanding of strategic competitiveness and the way in which business strategy is formulated and implemented; uses
school in adult education; methods and techniques of conducting adult classes.

WDED513 Principles of ABE/GED/ESL (Su) An introductory course to teaching adults at the Adult Basic Education (ABE), General Education Development (GED)-high School Equivalency, and English as a Second Language (ESL) levels. Will address instructional needs assessment, design and evaluation, and techniques of teaching basic skills in various settings including public schools, vocational-technical schools, technical institutes, technical colleges, community organizations, and the workplace.

WDED523 Teaching Disadvantaged Adults (Su) A survey of the diversity of adult learners comprising that population described as educationally disadvantaged. Consideration given to the various physical, mental, social, and economic factors which contribute to the uniqueness of this body of individual differing abilities.

WDED531 Foundations of Human Resource Development (Fa) An overview of human resource development (HRD) in organizations. Focus on the integration of individual development (training), career development, and organizational development. Topics include strategic planning for human resource development, needs assessment, program development, application of workplace learning theories, career development theories and methods, and application of organizational learning theories.

WDED5323 Organizational Analysis (Su) This course introduces the analysis process in organizations. The instruction and activities will enable students to develop skills in conducting organizational analysis (OA) as a basis for performance improvement in the workplace.

WDED5333 Developing Human Resources (Fa) Practical and innovative strategies for making the optimum use of all employees in both profit and service public organizations.

WDED5343 Facilitating Learning in the Workplace (Sp) Facilitation of learning and performance improvement in the workplace. Application of instructional methods, informal and incidental learning techniques, building, and formal and informal on-the-job learning tactics. Focus on facilitating individual and group learning to affect organizational change.

WDED5413 Foundations of Vocational Education (Fa) Surveying and interpreting the origin, principles, and objectives of vocational education and its relationship to other educational programs. Required for all graduate degree candidates in vocational education.

WDED5533 School-To-Workforce (Su) This course is designed to provide information on the role of the school in workforce development and to introduce a teacher to the skills desired in a seamless educational curriculum model.

WDED5553 Principles of Adult Learning (Fa) The learner in adult education programs is examined from youth adulthood to death. Emphasis is given to understanding the effect this knowledge has on the teaching-learning process in adult education and how to adult education programs can be designed to serve the uniqueness demanded by adult learning situations.

WDED5553 Diversity Issues and Globalization (Sp, Fa) This course emphasis on diversity in the workplace. Current issues on globalization and their effect on workplace are explored. Policy issues concerning diversity and globalization are examined. Prerequisite: Graduate standing.

WDED5553 Change Process (Sp) Processes available for changing adult behaviors. Emphasis is given to adult learning and informal situations. Emphasis on adult educator’s role as a change agent.

WDED5553 Career Development in the Workplace (Su) This advanced level course is intended for career development professionals and/or subject-matter experts interested in improving their career development skills within a structured or unstructured learning environment. The emphasis in this course is on gaining career development techniques and planning formal and informal career development strategies for the individual or the organization.

WDED5563 Introduction to Distance Learning (Sp) This course is designed to build a knowledge base about distance learning environments, especially online learning. This course emphasizes interaction among pedagogical models, instructional models, and learning technologies. The content is contextualized within higher learning, k-12 school, and corporate training.

WDED5583 Internship (Sp, Su, Fa) Site-based activity designed for those seeking Adult Education Licensure. Pre-corequisite: WDED 5513. Prerequisite: WDED 5223.

WDED571V Independent Study (Sp, Su, Fa) (1-3) May be repeated for up to 3 hours of degree credit.

WDED586V Independent Study (Sp, Su, Fa) (1-3) Prerequisite: Advanced graduate standing. May be repeated for up to 3 hours of degree credit.

WDED589V Internship (Sp, Su, Fa) (1-6) An overview of activities, programs, and resources that have the potential for greater access and success for adult learners with higher education and/or advanced training.

WDED6123 Adult Learner: The Later Years (Sp, Su, Fa) Directed toward people who are most likely to interact with older adults in a learner setting. Emphasis is on understanding the educational needs, wants, and characteristics of older learners so that appealing, valuable, and efficient instruction is developed.

WDED6133 Learning and Teaching Theories (Sp) Models and philosophies of important theorists in the field of teaching and learning.

WDED6213 Training in the Workplace (Su) An introduction to and survey of current theories and practices in training in the workplace. Students are expected to explore selected interdisciplinary topics in areas such as adult education, vocational education, human resource development, organizational behavior, instructional technology, and economics as they relate to training in the workplace.

WDED6223 Organization Development (Sp) This course teaches organization development activities that intervene in the interaction of people, technology, and the environment of use with a variety of applied behavioral sciences. It includes the dynamics of organizations, the genesis of organizational theory and evolution of organizational dynamics, including examination of system structure, chaos theory, group dynamics and interaction, leadership theories, diversity issues impacting organizations, and techniques of change agent intervention.

WDED6233 Learning Organization (Fa) This course emphasizes the theory and practice of learning organizations, especially the processes that facilitate individual and group learning.

WDED6313 Fundamentals of Research in WDED (Fa) This course addresses the principles and techniques underlying organizational research, analysis, and application-experimental. It covers the basic philosophy of science and research methods and gives attention to the practical problems of design, data collection, sampling, and data analysis. Prerequisite: ESRM 5013.

WDED6323 WDED Quantitative Research Design (Sp) This course is designed to introduce WDED students to qualitative research design, data collection and data analysis. Course content includes data collection through interviews, field observation, research, ethics issues associated with conducting research in organizational settings, and internal and external validity problems. Pre- or corequisite: Three hours of statistics and computer literacy. Prerequisite: WDED 6313 and ESRM 6403.

WDED6333 WDED Qualitative Research Design (Sp, Fa) This course provides students with the tools and abilities to design and implement an original research project using quantitative measures. Primary course elements are research design application, theoretical setting of the research, and selecting research within an appropriate literature base. The course uses online technologies and on-campus learning experiences. Prerequisite: WDED 6313 and ESRM 6403.

WDED6513 Leadership Models and Concepts (Sp, Su) This doctoral course concentrates on using commonly accepted principles of leadership to develop skills needed in workforce development education settings.

WDED6523 Curriculum Development in Vocational and Adult Education (Sp, Su, Fa) Determining principles of curriculum development, organizing curricula, and evaluating curriculum materials with special reference to vocational and adult education.

WDED6553 Program Planning (Sp) The 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 economic and community needs, curricular development process, and learning research in adult education in various settings, including public schools, vocational and technical schools, technical institutes, technical colleges, community organizations, and the workplace.

WDED6563 Program Evaluation (Su) Emphasis is given to understanding the theoretical foundation upon which the programmatic process is predicated, developing a theoretical model, and acquiring the conceptual tools necessary for analyzing the programmatic process in any workforce development education organization.

WDED6563 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 evaluation, (b) organizational development and program improvement, and (c) the integration of evaluation with strategic planning and performance improvement.

WDED6563 Ethical and Legal Issues (Fa) Focuses on ethical and legal issues within the workplace and behavioral science research. Students gain knowledge that should enable them to be effective in understanding ethical and legal issues within their workplace and how they can impact society.

WDED698V Practicum (Sp, Su, Fa) (1-6) Practicum is designed to allow doctoral students in workforce development education an opportunity to apply the theoretical knowledge, skills and abilities within the workplace. May be repeated for up to 6 hours of degree credit.

WDED700V Doctoral Dissertation (Sp, Su, Fa) (1-18) Prerequisite: Candidacy.
linguistic scholarship. Prerequisite: Junior standing. (Same as ANTH 3173, COMM 3173, ENGL 3173)

WLLC3923H Honors Colloquium (Irregular) Covers a special topic or issue, offered as part of the honors program. Prerequisite: Honors candidacy (not restricted to candidacy in foreign languages).

WLLC398V Special Studies (Irregular) (1-6) A course (not independent study) which covers a topic or author not usually presented in depth in regular courses.

WLLC4023 Language Teaching and the Internet (Fa) This course provides senior level undergraduate and graduate students of foreign languages with innovative ways to teach and communicate through the use of the internet as applied to second language learning. Topics of discussion include instructional systems design, web-based technologies, graphics, presentation technologies, and effective utilization of technological tools in language courses. Prerequisite: Senior standing.

WLLC4033 Language Teaching and Video Applications (Sp) This course provides senior level undergraduates and graduate students with the knowledge and skills needed to teach and communicate through the use of video as applied to second languages. Topics of discussion include instructional systems design, videotaping, editing and development for internet and DVD delivery, and effective utilization of video in teaching and communication. Prerequisite: Senior standing.

WLLC423V Culture and Civilization: Field Studies (Irregular) (1-18) May be taken by students participating in overseas workstudy programs approved by the department.

WLLC504V Translation Workshop (Irregular) (1-6) 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. (Same as ENGL 5043)

WLLC5063 Teaching Foreign Languages on the College Level (Irregular) Focus on basic methodological concepts and their practical application to college foreign language instruction.

WLLC5083 Developments in Second Language Teaching (Irregular) A review of techniques, strategies, and methodologies and a survey of recent developments in second language teaching.

WLLC575V Special Investigations (Sp, Fa) (1-6) May be repeated for up to 6 hours of degree credit.
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