

CHANCELLOR'S WELCOME

The University of Arkansas at Little Rock is on its way to becoming a regional leader among metropolitan universities in outstanding academic programs, research, and community engagement. UALR is an anchor institution for the city of Little Rock and the State of Arkansas—a public university committed to providing convenient, high-quality educational opportunities to our students while helping move Arkansas forward.

We are building the university our city and state need—grounded in the capital city and global in reach.

UALR serves talented and diverse students. We offer a broad range of academic programs, including a comprehensive set of undergraduate majors, graduate certificates, master's degrees, doctorates, and a law degree.

Our alumni are leaders in Arkansas and around the world in technology, government, engineering, health care, the arts, education, social services, and business. Alumni will tell you that, in addition to acquiring new knowledge in your chosen discipline, your experience at UALR will strengthen your critical thinking and problem-solving skills, better preparing you to pursue graduate studies or career opportunities.

The university also plays a critical role in advancing Arkansas's future. Through community partnerships and economic development initiatives, UALR helps the state compete in the global and increasingly knowledge-based economy. Our numerous partnerships with state and local government, businesses, and non-profit organizations can provide you with learning opportunities to develop and enhance the expertise necessary for your profession.

UALR is uniquely positioned to provide you with the skills, knowledge, and experience you need to reach the next step on your path to success. I encourage you to take advantage of all the university has to offer.

Sincerely yours,

Joel E. Anderson

Chancellor



ACCREDITATION AND ASSESSMENT

The University of Arkansas at Little Rock is accredited by the Higher Learning Commission, North Central Association.

University of Arkansas at Little Rock

2801 South University
Little Rock, Arkansas 72204
Phone: (501) 569-3000
ualr.edu



The Higher Learning Commission

30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
Phone: (800) 621-7440 / (312) 263-0456
Fax: (312) 263-7462
ncahlc.org/



Accreditations and Affiliations

- UALR is a Service-Members Opportunity College.
- Specific degree programs are also accredited or affiliated with many external accrediting/certifying bodies. A complete list is located on the Accreditation website (ualr.edu/accreditation).

Assessment

Units across campus regularly engage in research to assess UALR's success in meeting these objectives. Assessment at UALR is designed to help the academic programs – whether core, undergraduate, or graduate – focus on what should be taught in the program and whether it is being taught successfully.

This involves a variety of methods of inquiry to examine student needs, attributes, and success in learning. Each academic unit at UALR has an assessment program to conduct research that will be used to make decisions to improve its curriculum, instruction, and both academic and career advising. Students, alumni, and various stakeholders participate in a variety of assessment activities designed to assess learning in the major and in the core curriculum.

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ACADEMIC CALENDAR

For the most complete and accurate Academic Calendar:
ualr.edu/www/events

August

Su	Mo	Tu	We	Th	Fr	Sa
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September

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FALL 2014 TERM START AND END DATES

TERM 1	AUG. 18 - DEC. 8
TERM 2 ACCELERATED SESSION	AUG. 18 - OCT. 8
TERM 3 ACCELERATED SESSION	OCT. 20 - DEC. 17

FALL 2014 GENERAL DATES

UNDERGRAD ADMISSION (APPLICATION DEADLINE)	AUG. 8, BY 4 P.M.
UNIVERSITY CLOSED (LABOR DAY HOLIDAY)	SEP. 1
GRADUATION APPLICATION DUE	OCT. 3, BY 5 P.M.
MIDTERM GRADE ENTRY OPEN	OCT. 3
GRADFEST (DSC LOWER LEVEL-11 AM - 6 PM)	TBD
FALL BREAK	OCT. 13 - OCT. 14
GRADUATION INFO SESSION	TBD
NO CLASSES	Nov. 26
UNIVERSITY CLOSED (THANKSGIVING BREAK)	Nov. 27-30
COMMENCEMENT	DEC. 20 (9:30 A.M. AND 3:00 P.M.)

SUMMER 2014 INCOMPLETE DEADLINES

LAST DAY TO REMOVE "I" RECEIVED (IN SUMMER TERM 1 2014)	Nov. 5
LAST DAY TO REMOVE "I" RECEIVED (IN SUMMER TERM 2 2014)	SEP. 28
LAST DAY TO REMOVE "I" RECEIVED (IN SUMMER TERM 3 2014)	Nov. 5
LAST DAY TO REMOVE "I" RECEIVED (IN SUMMER TERM 4 2014)	Nov. 10

TERM 1 CLASSES (AUG. 18 - DEC. 8)

CLASSES BEGIN	AUG. 18
SATURDAY CLASSES BEGIN	AUG. 23
LAST DAY TO DROP AN INDIVIDUAL CLASS	OCT. 16, BY 5 P.M.
LAST DAY OF CLASS	DEC. 8
LAST DAY TO WITHDRAW FROM ALL CLASSES	DEC. 8, BY 5 P.M.
CONSULTATION DAY	DEC. 9
FINAL EXAMS	DEC. 9 - DEC. 16
GRADES DUE	DEC. 19, BY 12 NOON

TERM 2 ACCELERATED SESSION (AUG. 18 - OCT. 8)

CLASSES BEGIN	AUG. 18
SATURDAY CLASSES BEGIN	AUG. 23
LAST DAY TO DROP AN INDIVIDUAL CLASS	SEP. 16, BY 5 P.M.
LAST DAY TO WITHDRAW FROM ALL CLASSES	OCT. 7, BY 5 P.M.
LAST DAY OF CLASS	OCT. 8
FINAL EXAMS	OCT. 8
GRADES DUE	OCT. 10, BY 12 NOON

TERM 3 ACCELERATED SESSION (OCT. 20 - DEC. 17)

CLASSES BEGIN	OCT. 20
SATURDAY CLASSES BEGIN	OCT. 25
LAST DAY TO DROP AN INDIVIDUAL CLASS	Nov. 18, BY 5 P.M.
LAST DAY TO WITHDRAW FROM ALL CLASSES	DEC. 16, BY 5 P.M.
LAST DAY OF CLASS	DEC. 17
FINAL EXAMS	DEC. 17
GRADES DUE	DEC. 19, BY 12 NOON

JANUARY

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April

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MAY

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SPRING 2015

JANUARY

SPRING 1 & 2 CLASSES BEGIN	JAN. 12
SATURDAY CLASSES BEGIN	JAN. 17
HOLIDAY - MARTIN LUTHER KING, JR. BIRTHDAY	JAN. 19

FEBRUARY

SPRING 2-LAST DAY TO DROP AN INDIVIDUAL CLASS W/A GRADE OF "W"	FEB. 10
SPRING 2-LAST DAY TO WITHDRAW FROM THE ALL CLASSES	FEB. 27

MARCH

SPRING 2-LAST DAY OF CLASSES, FINALS BEGIN	MAR. 2
SPRING 2-FINAL GRADES DUE	MAR. 4
LAST DAY TO DROP AN INDIVIDUAL CLASS W/A GRADE OF "W"	MAR. 10, BY 5 P.M.
SPRING 3-CLASSES BEGIN, TBD	MAR. 16
LAST DAY TO REMOVE AN "I" RECEIVED FALL 2012	MAR. 18
SPRING BREAK	MAR. 23-29
UNIVERSITY CLOSED	MAR. 27

APRIL

SPRING 3-LAST DAY TO DROP AN INDIVIDUAL CLASS W/A GRADE OF "W"	APR. 14
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MAY

SPRING 1-LAST DAY OF CLASS, LAST DAY TO WITHDRAW FROM THE ALL CLASSES	MAY 4, 5 P.M.
CONSULTATION DAY	MAY 5
FINALS BEGIN	MAY 5, AT 4 P.M.
SPRING 1-LAST DAY OF FINALS	MAY 12
SPRING 3-LAST DAY TO WITHDRAW FROM THE ALL CLASSES	MAY 15, BY 12 NOON
SPRING 1 & 3-FINAL GRADES DUE	MAY 15, BY 12 NOON
SPRING COMMENCEMENT	MAY 16

SUMMER 2015

May

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June

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July

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August

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CLASSES BEGIN

SUMMER I	MAY 26
SUMMER II	MAY 26
SUMMER IV	JUL. 6
HOLIDAY - MEMORIAL DAY (UNIVERSITY CLOSED)	MAY 25
HOLIDAY - INDEPENDENCE DAY (UNIVERSITY CLOSED)	JUL. 3
LAST DAY TO REMOVE AN "I" RECEIVED SPRING 2014	AUG. 13

LAST DAY TO DROP AN INDIVIDUAL CLASS:

SUMMER I	JUL. 1, BY 5 P.M.
SUMMER II	JUN. 12, BY 5 P.M.
SUMMER IV	JUL. 23, BY 5 P.M.

LAST DAY TO WITHDRAW FROM ALL CLASSES:

SUMMER I	AUG. 3, BY 5 P.M.
SUMMER II	JUN. 26, BY 5 P.M.
SUMMER IV	AUG. 6, BY 5 P.M.

LAST DAY OF CLASSES

SUMMER FINALS ARE HELD ON THE LAST DAY OF CLASS	
SUMMER I	AUG. 4
SUMMER II	JUN. 29
SUMMER IV	AUG. 7

GRADES DUE BY 12 NOON:

SUMMER I	AUG. 6, 12 NOON
SUMMER II	JUL. 1, 12 NOON
SUMMER IV	AUG. 11, 12 NOON

GUIDE TO THE UALR GRADUATE SCHOOL

Ottenheimer Library, 5th Floor, (501) 569-3206, (501) 569-3039 (fax)

Professor Paula Casey, Interim Dean

Dana Steele, M.Ed., Student Affairs Specialist

Larry Beachler, Systems Administrator

ualr.edu/gradschool/

The UALR Graduate School operates as the central administrative unit providing leadership, coordination, and services for graduate students. Together with the individual graduate programs, departments, colleges, and the Graduate Council, the Graduate School shares responsibility for program development, management, promotion, and review. Students are always welcome in the Graduate School offices on the fifth floor of the Ottenheimer Library, where staff members will gladly assist them with any questions or problems.

Graduate School admissions staff processes applications, handles enrollment questions, and maintains student records. Graduate School staff also manages the graduate assistantship program, produces academic and promotional materials, assists with recruiting and marketing efforts, prepares research reports from the student database, and provides logistics support for the Graduate Council.

The Graduate School also facilitates the Graduate Student Association (GSA). The GSA advocates for graduate students and sponsors a variety of social and academic events for graduate students throughout the year.

Mission

The mission of the Graduate School is to provide leadership for developing and sustaining quality graduate programs; to promote graduate education; to facilitate student access to graduate programs; to support and promote public service, research, and sponsored programs; and to support faculty development. In keeping with the UALR mission, the Graduate School strives to carry out its mission in an environment that enhances freedom of expression, academic integrity, scholarly inquiry, and interactions among the graduate disciplines toward the goal of preparing leaders and responsible citizens. (Adopted by the UALR Graduate Council, 1989)

Organization

The UALR Graduate School as a distinct academic and administrative unit was created in 1977, although graduate course work had been offered since 1975. The Dean of the Graduate School reports to the Provost and Vice Chancellor for Academic Affairs. No faculty positions are assigned to the Graduate School. The day-to-day operation of individual graduate programs is the responsibility of the graduate coordinators and graduate faculty of the academic departments. The Graduate Council, the academic policy body for the Graduate School, approves admission policy, program requirements, program reviews, program and course additions and deletions, and graduate faculty.

Programs

The specific requirements and policies of each graduate degree program are described in the section of this catalog covering that program and its courses. Because of limited course offerings per semester, a student may be unable to carry a full-time load. It is essential that degree-seeking students maintain close contact with their advisors concerning the availability of course offerings.

Graduate Program	Certificate or Degree Offered	College/Department
Accountancy	Graduate Certificate	College of Business/Accounting
Accountancy	Master of Accounting (MAcc)	College of Business/Accounting
Adult Education	Master of Education (M.Ed.)	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Applied Communication Studies	Master of Arts (M.A.)	College of Social Sciences and Communications/ Speech Communication
Applied Science	Master of Science (M.S.)	College of Arts, Letters, & Sciences /Applied Science
Applied Science	Doctor of Philosophy (Ph.D.)	College of Arts, Letters, & Sciences /Applied Science
Applied Statistics	Graduate Certificate	College of Arts, Letters, & Sciences/ Mathematics & Statistics
Art	Master of Arts (M.A.)	College of Arts, Letters, & Sciences /Art
Audiology; also at UAMS, UALR consortium	Doctor of Audiology (Au.D.)	College of Education and Health Professions/ Audiology & Speech Pathology
Bioinformatics; also at UAMS, UALR consortium	Master of Science (M.S.)	Donaghey College of Engineering & Information Technology/Information Science
Bioinformatics; also at UAMS, UALR consortium	Doctor of Philosophy (Ph.D.)	Donaghey College of Engineering & Information Technology/Information Science
Biology	Master of Arts (M.A.)	College of Arts, Letters, & Sciences/Biology
Biology	Master of Science (M.S.)	College of Arts, Letters, & Sciences/Biology
Building Level Administration and Supervision	Graduate Certificate	College of Education and Health Professions/ Educational Leadership
Business Administration	Master of Business Administration (M.B.A.)	College of Business
Business Information Systems	Graduate Certificate	College of Business/Management
Business Information Systems	Master of Science (M.S.)	College of Business/Management
Chemistry	Master of Arts (M.A.)	College of Arts, Letters, & Sciences/Chemistry
Chemistry	Master of Science (M.S.)	College of Arts, Letters, & Sciences/Chemistry
Communication Sciences & Disorders; also at UAMS, UALR consortium	Master of Science (M.S.)	College of Education and Health Professions/ Audiology & Speech Pathology
Communication Sciences & Disorders ; also at UAMS, UALR consortium	Doctor of Philosophy (Ph.D.)	College of Education and Health Professions/ Audiology & Speech Pathology
Computer Science	Master of Science (M.S.)	Donaghey College of Engineering & Information Technology
Conflict Mediation	Graduate Certificate	College of Social Sciences and Communications/ Institute of Government

Graduate Program	Certificate or Degree Offered	College/Department
Construction Management	Master of Science (M.S.)	Donaghey College of Engineering & Information Technology/Construction Management and Civil and Construction Engineering
Counselor Education	Master of Education (M.Ed.)	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Criminal Justice	Master of Arts (M.A.)	College of Social Sciences and Communications/ Criminal Justice
Criminal Justice	Master of Science (M.S.)	College of Social Sciences and Communications/ Criminal Justice
Criminal Justice	Doctor of Philosophy (Ph.D.)	College of Social Sciences and Communications/ Criminal Justice
Curriculum & Instruction	Master of Education (M.Ed.)	College of Education and Health Professions/ Teacher Education
Curriculum/Program Administration and Supervision	Graduate Certificate	College of Education and Health Professions/ Educational Leadership
Educational Administration & Supervision	Doctorate of Education (Ed.D.)	College of Education and Health Professions/ Educational Leadership
Educational Administration & Supervision	Educational Specialist (Ed.S.)	College of Education and Health Professions/ Educational Leadership
Educational Administration & Supervision	Master of Education (M.Ed.)	College of Education and Health Professions/ Educational Leadership
Engineering Science and Systems	Doctor of Philosophy (Ph.D.)	Donaghey College of Engineering and Information Technology/Systems Engineering
Geospatial Technology	Graduate Certificate	Donaghey College of Engineering & Information Technology/Earth Science
Gerontology	Graduate Certificate	College of Education and Health Professions/ School of Social Work
Gifted Education	Graduate Certificate	College of Education and Health Professions/ Educational Leadership
Teaching Advanced Placement	Graduate Certificate	College of Education and Health Professions/ Teacher Education
Teaching Gifted & Talented	Master of Education (M.Ed.)	College of Education and Health Professions/ Teacher Education
Health, Human Performance and Sport Management	Master of Science (M.S.)	College of Education and Health Professions
Higher Education	Doctor of Education (Ed.D.)	College of Education and Health Professions/ Educational Leadership
Higher Education	Master of Arts (M.A.)	College of Education and Health Professions/ Educational Leadership
Information Quality	Graduate Certificate	Donaghey College of Engineering and Information Technology/Information Science
Information Quality	Master of Science (M.S.)	Donaghey College of Engineering and Information Technology/Information Science
Integrated Computing	Doctor of Philosophy (Ph.D.)	Donaghey College of Engineering and Information Technology
Integrated Science & Mathematics	Master of Science (M.S.)	Donaghey College of Engineering & Information Technology

Graduate Program	Certificate or Degree Offered	College/Department
Interdisciplinary Studies	Master of Arts (M.A.)	College of Arts, Letters, & Sciences/English
Law	Juris Doctorate (J.D.)	Bowen School of Law
Law/Public Service; also at Clinton School	Juris Doctorate/Master of Public Services (J.D. /M.P.S.)	Bowen School of Law/Clinton School of Public Service
Learning Systems Technology	Master of Education (M.Ed.)	College of Education and Health Professions/ Educational Leadership
Literacy Intervention Specialist	Graduate Certificate	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Management	Graduate Certificate	College of Business/Management
Mass Communication	Master of Arts (M.A.)	College of Social Sciences and Communications
Math Education	Graduate Certificate	College of Education and Health Professions
Mathematical Sciences	Master of Science (M.S.)	College of Arts, Letters, & Sciences
Middle Childhood Education	Master of Education (M.Ed.)	College of Education and Health Professions/ Teacher Education
Nonprofit Management	Graduate Certificate	College of Social Sciences and Communications/ Institute of Government
Orientation and Mobility of the Blind	Graduate Certificate	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Professional & Technical Writing	Master of Arts (M.A.)	College of Social Sciences and Communications/ Rhetoric and Writing
Public Administration	Master of Public Administration (M.P.A.)	College of Social Sciences and Communications/ Institute of Government
Public History	Master of Arts (M.A.)	College of Arts, Letters, & Sciences/History
Public Service	Master of Public Service (M.P.A.)	Clinton School of Public Service
Reading	Educational Specialist (Ed.S.)	College of Education and Health Professions/ Teacher Education
Reading	Master of Education (M.Ed.)	College of Education and Health Professions/ Teacher Education
Reading	Doctor of Philosophy (Ph.D.)	College of Education and Health Professions/ Teacher Education
Reading/Literacy Coach	Post-Master's Certificate	College of Education and Health Professions/ Teacher Education
Rehabilitation Counseling	Graduate Certificate	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Rehabilitation Counseling	Master of Arts (M.A.)	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Rehabilitation of the Blind	Master of Arts (M.A.)	College of Education and Health Professions/ Counseling, Adult, & Rehabilitation Education
Second Languages	Master of Arts (M.A.)	College of Arts, Letters, & Sciences/ International & Second Language Studies

Graduate Program	Certificate or Degree Offered	College/Department
Secondary Education	Graduate Certificate	College of Education and Health Professions/ Teacher Education
Secondary Education	Master of Education (M.Ed.)	College of Education and Health Professions/ Teacher Education
Social Work	Master of Social Work (M.S.W.)	College of Education and Health Professions/ School of Social Work
Special Education	Master of Education (M.Ed.)	College of Education and Health Professions/ Teacher Education
Strategic Communication	Graduate Certificate	College of Social Sciences and Communications/ School of Mass Communication
Superintendency	Graduate Certificate	College of Education and Health Professions
Systems Engineering	Graduate Certificate	Donaghey College of Engineering & Information Technology
Systems Engineering	Master of Science (M.S.)	Donaghey College of Engineering & Information Technology
Taxation	Graduate Certificate	College of Business/Accounting
Technology Innovation	Graduate Certificate	Donaghey College of Engineering & Information Technology/Information Science

Admission to graduate certificate and master's programs in the UALR Graduate School requires a baccalaureate degree from a regionally accredited institution with substantially the same undergraduate program as at UALR (typically at least 120 hours or the equivalent of a 4-year baccalaureate degree). A 2.7 cumulative GPA is required for admission into the Graduate School. Most programs will also require a 3.0 GPA on the last 60 undergraduate hours (including post-baccalaureate hours) for admission. International students should refer to the Graduate School International Student Admission Policy for additional required application materials. Admission to an educational specialist or doctoral program usually requires a master's degree from an accredited institution. Official transcripts, which are sent directly from the college or university that issued the degree, are required from all prospective graduate students.

Students must satisfy Graduate School requirements as well as those of the program to which they seek admission. Applications and all official transcripts should be submitted to the Graduate School as quickly as possible, as an application will not be passed on to the student's prospective program—regardless of the program's standards or requirements—if it does not first meet the standard Graduate School admission requirements. The section of this catalog on each degree program includes the admission requirements for that program.

Some degree programs require the Graduate Record Examination, (GRE), Miller Analogies Test (MAT), or Graduate Management Admission Test (GMAT). Scores more than five years old are not accepted. Test scores alone do not determine admission to a program but are one considered piece of data. Letters of recommendation, statements of purpose, and personal interviews are also used to assess a student's preparedness for and probability of success in a program.

It is important to note that meeting all Graduate School and program requirements does not guarantee admission to a graduate certificate, master's, specialist, or doctoral program. Applicants who do not meet all minimum admission criteria may, in rare instances, be admitted conditionally.

The Application Process

All prospective students are required to apply to the UALR Graduate School online at ualrgrad.org/application. After submitting an application, students must request official transcripts from all institutions previously attended for undergraduate and, if applicable, graduate work. Transcripts should be sent to the following address.

University of Arkansas at Little Rock
Attention: Graduate School Ottenheimer Library - Fifth Floor
2801 South University Avenue
Little Rock, Arkansas 72204-1099

A non-refundable application fee of \$40.00 is required of all first-time applicants except for McNair Scholars and military members. In addition, all applicants must submit a copy of their government-issued photo ID and proof of two MMR vaccines to the Graduate School. Please refer to the prospective program of study to find out if additional items are needed to complete the application file. International students should also see the section later in this catalog about additional application requirements.

It is the applicant's responsibility to ensure that all admission documents are received by the Graduate School in a timely manner. All credentials submitted by or on behalf of an applicant become the property of UALR and will be retained for one year. Materials from applicants who do not submit all requested materials will be shredded and discarded.

Once an application has been submitted, applicants should notify the Graduate School of any change in plans regarding enrollment at UALR. Students admitted to the university must either enroll in the semester to which they applied, or they may defer admission once for a semester. Students must officially request the deferral in writing.

Application Deadlines

Deadlines for admission applications vary from program to program and are subject to change. Applications and all supporting materials should be submitted as early as possible. To be considered for financial aid, all application materials should be received by the Graduate School by the following dates:

- August 1 for fall admission
- December 15 for spring admission
- May 1 for summer admission

These dates will normally assure an admission decision in time for enrollment in the designated semester; however, specific program deadlines take precedence. For program deadlines, see the program coordinator, the Graduate School, or the graduate program website, ualr.edu/gradschool/home/pros/programs.

Reapplication

It is the expectation of the Graduate School that once admitted, students will remain enrolled until they graduate. However, a graduate student who has not been enrolled for a period of two calendar years will be classified as inactive. To resume graduate study, inactive students must reapply for admission. Some programs have shorter periods before classifying the student as inactive. The \$40.00 application fee will not be required for the new application to be processed. Applicants dismissed from, on probation, or otherwise not in good standing in another graduate or post-graduate program will not be admitted.

Audiology and Communication Sciences and Disorders

Applications to the Master of Science in Communication Sciences and Disorders program, the Doctor of Philosophy in Audiology program, and the Doctor of Philosophy in Communication Sciences and Disorders are routed through the University of Arkansas for Medical Sciences. For admission, carefully note the instructions in the program description in this Catalog.

Undergraduate Seniors

UALR seniors near completion of their baccalaureate degrees may apply for admission to the Graduate School, which provides limited enrollment privileges. If accepted, they will be awarded the appropriate status upon confirmation of their baccalaureate degrees. It is the student's responsibility to inform the Graduate School of degree completion. Undergraduate students may not be eligible for financial aid while being considered for admission to the Graduate School.

Undergraduate Dual Credit Programs

4+1 Early Entry Program

Exceptional UALR undergraduate students may apply and be accepted to select graduate programs and begin working toward their graduate degree while completing their baccalaureate degree. The 4+1 early entry program will allow participating students to combine their undergraduate studies with related graduate-level work. Additionally, it will enable them to complete their graduate degree in a shorter amount of time than the traditional path. To find out more about the program and its requirements, please visit ualr.edu/gradschool/undergraduate-credit-collaboration-programs/.

Credit Reservation Program

UALR undergraduate students may take up to 6 hours of graduate-level courses and reserve the credit for their graduate degree. Unlike the 4+1 program, these graduate-level courses will not count toward both the baccalaureate and the graduate degrees. Instead, the student will choose to use the credit towards either one degree or the other. Once a student's undergraduate degree has been awarded, he or she cannot change the level of credit received for a class. Additionally, students participating in the credit reservation program do not need to be admitted into a graduate program in order to take graduate-level courses. To find out more about the program and its requirements, please visit ualr.edu/gradschool/undergraduate-credit-collaboration-programs/.

International Students

International students must provide the credentials and detailed information listed below before being considered for admission.

- Application Form: available online at ualrgrad.org/application/.
- Application Fee: nonrefundable \$40 fee.
- Academic Records: originals or certified official copies with certified English translations of the applicant's entire academic record in secondary school, college, or university, showing a level of achievement that satisfies the admission requirements of the Graduate School and the degree program to which the student seeks admission.
- Articulated International Transcripts: in most cases, articulation will be required by individual programs at the time of application review. In all cases, articulated transcripts will need to be on file at the university prior to registration. For details on transcript articulation students should contact World Education Services (WES) at www.wes.org.
- English Proficiency Certification: applicants whose native language is not English must submit scores on the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) with the application. Master's or educational specialist applicants must achieve a score of 525 on the paper-based test, 197 on the computer-based version, or 71 on the Internet-based version. Doctoral applicants must achieve a score of 550 on the paper-based test, 213 on the computer-based version, or 79 on the Internet-based version. On the IELTS, all applicants must make at least a 6.5.
- Students who have studied full-time for two or more years at a college or university where English is the language of instruction located in a country where English is the native language may be exempt from the TOEFL or the IELTS. Applicants will not be admitted as regular students nor allowed to enroll into academic programs until the English language requirement is met. In rare cases, international applicants may request and receive conditional acceptance to take IELP courses at UALR to assist them in making the necessary scores for regular admission into an academic program.
- Some programs require higher scores or other proof of proficiency such as the Test of Spoken English (TSE). TOEFL application forms and information are available from the UALR Office of Testing Services and Student Life Research (ualr.edu/testing) or from the Educational Testing Service (www.ets.org), Box 899, Princeton, New Jersey 08540 U.S.A. Information for the IELTS can be found at ielts.org/default.aspx. United States consulates and embassies may provide information.
- Students may also be asked to take additional tests on campus at the Office of Testing Services to demonstrate their proficiency. The Michigan Test of English Language Proficiency is given the Thursday before every UALR semester begins and costs the student \$40.00.
- Financial Statement: students must provide certified proof that they are financially capable of pursuing an education in the U.S. to International Student Services. Estimated cost for books, tuition, fees, and living expenses will be \$27,400 in U.S. currency each year. Tuition payments are due at the beginning of each semester and do not include the cost of books, supplies, and miscellaneous fees. In some instances, UALR will require cash deposits for tuition and living expenses before admission is granted.
- Health and Accident Insurance: admitted students must purchase health and accident insurance provided by UALR and maintain coverage year-round.
- Tuberculosis Screening and MMRs: all international applicants must be screened for tuberculosis according to an Arkansas Department of Health directive. Screening can be done at Student Health Services or through a primary care provider. All students must also provide proof of immunization for measles, mumps, and rubella to the Graduate School. One MMR must be provided at admission time and the other MMR is due by the end of the first semester.
- Change of University: applicants transferring from another institution within the U.S. must submit a Transfer and Visa Form for International Students completed by the applicant and the foreign student advisor of the institution the applicant is currently attending.
- Deadlines: no action will be taken on an application for admission until all credentials have been received. They must be received no later than May 31 for the fall semester and October 15 for the spring semester. Transfer students must have all credentials on file one month before the date of registration.

Additional Information for International Students

Housing Facilities: UALR now has a complex dedicated to upper-class and graduate student housing. For more information visit ualr.edu/housing/ or contact housing@ualr.edu.

Employment: U.S. immigration laws do not permit international students to apply for permission to accept off-campus employment until they have been in this country for at least one year. Additionally, graduate assistants are not allowed to work off-campus.

Admission Statuses

If admitted, students will be placed in one of the following categories:

- **Regular (degree-seeking):** completed and submitted all admission materials; met Graduate School and program admission requirements.
- **Conditional (degree-seeking):** supplied all admission materials but did not meet all admission requirements. Test scores, grades in the undergraduate major, or other pertinent data must indicate the student will perform satisfactorily in Graduate School. The student will be dismissed if a 3.0 GPA is not maintained during the first 12 hours or satisfactory progress is not being made toward this GPA. Applicants dismissed from, on probation, or otherwise not in good standing in another graduate or post-graduate program will not be admitted.
- **Special (non-degree-seeking):** met admission requirements. For persons who want to take a limited number of graduate hours (9) for professional advancement or personal enrichment. Although test scores are not usually required, transcripts are required. International students with special status may only take 6 hours. Special students are not eligible for financial aid.
 - Special students must contact appropriate program coordinators to ensure that course prerequisites are met and for permission to enroll in specific courses. Most programs permit enrollment, if space and other resources permit, after all degree-seeking students are enrolled. Some programs limit the number of hours special students may take in the program.
 - No more than 9 hours can be earned by domestic students while classified as a special student. Special students enrolling in most classes offered by the Education programs have additional requirements. They must contact the Education program prior to enrollment.

Courses taken as a special student may later be used to satisfy degree requirements at the discretion of the program faculty and Graduate School dean.

Special status is not an avenue for admission to a program or enrollment in courses where an applicant has already been denied. Applicants denied admission to a program, then admitted as special students, must have special permission from both the program coordinator and the Graduate School dean to take courses in the denied program.

Provisional (degree-seeking): appear qualified for admission to program but have not submitted all required admission materials. Must provide all admission materials by end of first grading period enrolled to gain regular or conditional admission. Limited to 6 hours and not eligible for financial aid. International students cannot be admitted provisionally.

New Student Orientation

Online orientation sessions are held at the beginning of every fall and spring semester.

Contingent Enrollment Privilege

Students not yet admitted to the Graduate School may be granted contingent enrollment privileges (with minimum requirements of an unofficial transcript showing conferral of a baccalaureate or graduate degree) until an admission status is granted. Failure to present adequate and official admission materials within four weeks of enrollment may result in administrative withdrawal from all courses and loss of tuition and fees, and failure to gain admission will prevent enrollment in future graduate courses. The phrase "Admitted to Graduate School" will not appear on the transcript.

Short-Term, Off-Campus, and Distance Education Courses

To enroll in graduate-level workshops, institutes, or other credit offerings through the Graduate School or Off-Campus Programs, students must apply online for admission to the Graduate School at least four weeks before the course starts and must provide evidence of admissibility before being enrolled. Applicants cannot attend a class without being enrolled. It is important that all required documents are received in the Graduate School at least one week before the course begins. Deadlines are enforced. Application and enrollment assistance may be provided on site in some situations, but not as a rule.

In general for domestic applicants, materials for the fall semester (begins in late August), should be received by June 1; for spring semester (begins in mid-January), by October 15; for the first summer session (begins in mid-May), by March 15; for the second summer session (begins in early July), by May 1. For international applicants, materials for the fall semester (begins in late August), should be received by February 1 and for the spring semester (begins in mid-January), by October 15.

Online Registration Guide and Class Schedule

After you are familiar with the catalog, the next step toward taking courses at UALR is to view the UALR Registration Guide and the Class Schedule online at boss.ualr.edu.

The UALR Registration Guide and the Class Schedule contain information on the web registration process and lists the courses that will be offered during specific semesters by course, time, location, and instructor. The Registration Guide also contains the academic calendar, the final examination schedule, and important deadlines, such as payment deadlines, dropping with a refund, withdrawing from classes.

UALR offers courses in the fall, spring, and summer. The summer semesters are divided into one 10-week term (Summer I), and one 8-week term (Summer III), and two 5-week terms (Summer II and IV). Accelerated terms are also offered within the traditional fall and spring semesters. UALR also offers courses at other times, such as during the interim between each semester and at different time periods during a semester or term.

Courses are also offered online and off campus. A note after a course listing, a special section in the UALR Registration Guide and Class Schedule, or a separate publication will tell you when courses are offered at times or places that differ from the regular schedule.

During a regular semester or term, the usual three-credit-hour daytime course will meet for 50 minutes a day on Monday, Wednesday, and Friday, or for 1 hour and 15 minutes on either Monday and Wednesday or Tuesday and Thursday. However, many graduate classes will meet in the evening or on weekends at different time schedules such as one three-hour session per week.

All these options are part of UALR's effort to offer classes in times and places that suit the needs of all students, but it also means students need to read the UALR Registration Guide and the Class Schedule carefully. An explanation of each part of this listing is provided below.

- **11327:** The five-digit course reference number (CRN) assigned for registration. The five-digit CRN number is necessary for registration and is not the same as the course number.
- **RHET:** The department or curriculum area with its assigned four-letter code. See the chart on the following page for a comprehensive list of UALR course codes.
- **7250:** The course number assigned by the department. It indicates the level and number of credit hours for the course. See "Course Description" for more details.
- **14:** The section number assigned by the department. See "Section" on page 241 for more details.
- **2.00:** The number of credit hours the course is worth.
- **Independent Study:** The course title. Abbreviated versions of longer course titles may be used. Descriptions of all courses appear within their respective departments in numerical order by course number.
- **Main:** The campus where the course takes place.
- **Jan 12, 2015:** The semester start date.
- **May 4, 2015:** The semester end date.
- **MWF:** The days the class meets, in this case each Monday, Wednesday, and Friday. Other abbreviations include "MW" or Monday and Wednesday, "TR" or Tuesday and Thursday, "S" means Saturday, "U" means Sunday, and "TBA" indicates "to be announced." "TBA" is often used for online classes.
- **TBA:** The time the class begins and ends. The abbreviation TBA in this place means "to be announced." The exact time for TBA courses will be provided by the department or instructor.
- **SH:** The building where the class meets, in this case Stabler Hall. See "Building Codes" on page 246 for a comprehensive list of UALR building codes and a map of the campus.
- **101:** The room number where the class will meet.
- **John A. Smith (P):** The name of the instructor assigned to this class. If the word "Staff" appears here, the teacher for the class had not yet been assigned at the time the schedule was prepared.
- **Note:** If a note is listed, it will have specific information displayed for students to consider before registering for that class.

FINANCING GRADUATE EDUCATION

Applicants must be fully admitted with regular admission status at UALR as degree-seeking students to be eligible for any form of financial aid. Graduate students are not eligible for the Pell Grant, Supplemental Educational Opportunity Grant, or Arkansas Student Assistance Grant.

Office of Financial Aid

The UALR Office of Financial Aid provides applications, information, and assistance on federal and other aid programs. Most financial aid is not automatically renewed; students must reapply each academic year. For more information, contact the Office of Financial Aid at (501) 569-3035 or online at ualr.edu/financialaid/.

Graduate Assistantships

Graduate assistantships are available through graduate programs or departments. To qualify, students must be regularly admitted to a degree-granting graduate program and be recommended by the program coordinator. They must also have a minimum course load of nine graduate hours for a full-time assistantship or 6 graduate hours for a part-time assistantship.

Audited courses and undergraduate courses will not count toward the course hour requirement and are not covered by the tuition credit. Students who drop below the hour requirement by withdrawing from one or more courses are no longer eligible for graduate assistantships. To keep their assistantships, graduate assistants must remain in good academic standing with a cumulative GPA of 3.0 or above.

Assistantships usually include a full or partial tuition scholarship and a stipend of at least \$6,450 (20 hours per week for two semesters) or \$3,225 (10 hours per week for two semesters). Some programs offer a larger stipend. Assistantships generally are not available for the summer terms.

Duty assignments vary, but most involve either teaching or research responsibilities at UALR and cooperating agencies. Whenever possible, assignments contribute to the student's field of study. For more information, see ualr.edu/gradschool or contact the appropriate program coordinator.

Federal Aid Programs

To apply for federal aid, students must complete a current Free Application for Federal Student Aid (FAFSA). The priority deadline for financial aid applications for the fall semester is March 1, and November 1 for the spring semester. Once the application has been processed and need analysis information determined, the applicant will receive an award notification that includes the types and amounts of aid awarded, specific program information, student responsibilities, and conditions governing the award.

Note: federal aid eligibility will be reduced if the student receives assistance from any other sources, including graduate assistantships, scholarships, grants, employee discounts, etc.

Other Types of Aid

Tuition Deferment Plan

This payment plan is available through the UALR cashier's office; students must pay a \$25 nonrefundable processing fee. The deferment plan is available for Fall and Spring semesters only.

Payroll Deduction

University employees may pay tuition and fees for themselves, their spouse, or their dependents via payroll deduction. Contact the cashier's office as early as possible before the semester starts.

Scholarships

Scholarships are available for both full- and part-time students through the UALR Office of Development and various UALR schools and colleges. To apply, complete a UALR Scholarship Application and the scholarship applications required by the various schools and colleges. Deadlines for scholarships may vary. Find out more at ualr.edu/financialaid/types/scholarships/.

Veterans Benefits

The U.S. Department of Veterans Affairs is authorized by law to provide a wide range of benefits to those who have served their country in the armed forces and to their dependents. Veterans seeking application materials or information on eligibility for VA educational benefits should contact the veterans certifying official in the UALR Office of Veterans Affairs, (501) 569-8171, vavets@ualr.edu, and online at ualr.edu/admissions/veterans.

ACADEMIC POLICIES AND PROCEDURES

It is the student's responsibility to be familiar with the academic rules and regulations in this catalog and with departmental and program policies concerning the student's degree program. These provisions are subject to change, although students will normally be permitted to complete their programs under the regulations in effect at the time of admission.

Advisement

Students must be advised each semester before enrolling. Advisement procedures and arrangements vary between programs, but generally, the program coordinator will assign a faculty advisor to work with each student to develop an approved program of study. Special, non-degree-seeking students are advised by program coordinators for the curricula in which they are seeking admission to classes. Some programs use BOSS to conduct advising, while others do it in a more informal manner.

Falsifying the Graduate School Admissions Application

UALR expects members of the university community—including applicants for admission—to be honest and professional in all of their dealings with the institution. To evaluate the credentials of an applicant, the Graduate School requires a portfolio of accurate information about the applicant's academic, professional, and personal history. The Graduate School will take action against applicants who deliberately mislead or misrepresent their backgrounds in their application materials.

If false, misrepresented, or misleading information on the application portfolio is discovered, the following procedures will be followed:

- If discovered before the application process is complete, the application will not be processed and no admission offer will be forthcoming.
- If discovered after admission and prior to enrollment, the admission offer will be rescinded.
- If discovered after admission and enrollment, the student will be administratively withdrawn from all classes and dismissed from the Graduate School; institutional financial assistance will be terminated retroactively, and all tuition and other awards made to the student must be repaid.
- If discovered after a degree or certificate has been earned, that degree or certificate will be revoked.

Under none of these circumstances will the applicant receive a refund of his/her application fee or tuition and fees. Evidence suggesting that an applicant has falsified, misrepresented, or acted to mislead reviewers with respect to any component of the applicant's background will be brought to the dean of the Graduate School. The dean of the Graduate School will evaluate the relevant evidence and consult with any parties involved with the application prior to making a decision regarding the disposition of the application.

If the applicant/student/graduate wishes to appeal the decision, an appeal may be made to the Associate Dean of Students, after which institutional student appeals processes will be implemented. No punitive action against the applicant/student/graduate will occur until the issue is resolved.

Standard American English Requirement

Except in certain foreign language programs, Standard American English (SAE) is the language of instruction, examination, and all other forms of professional communication within graduate education at UALR. Only when communication in another language or in non-standard English is essential to the integrity of the academic process may a thesis/dissertation, major programmatic examination, or other component of the academic process be conducted in a language other than SAE. Students who wish to use a language other than SAE must secure the written permission of the Dean of the Graduate School. When a thesis/dissertation is accepted in a different language, it must contain an abstract written in SAE.

Course Audit

To 'audit a course' means to attend class with no expectation of active involvement in class activities and, in effect, to be a spectator, not a participant. Under normal circumstances, the auditing student will not be given a grade, performance report, or evaluation of any kind. However, to receive transcript recognition for the audited course, the student must attend class with sufficient regularity to meet the instructor's minimum expectations. These expectations should be made explicit to the student early in the course. Students who audit a course must follow regular admission and registration procedures, pay full tuition and fees, and are subject to the university's academic policies. Credits accrued through audited courses do not count toward fulfilling minimum credit degree requirements. In addition, audited courses do not count toward those needed to meet the requirements for a full- or half-time graduate assistantship. Graduate students should contact the UALR Office of Financial Aid at (501) 569-3035 to determine the impacts of auditing a course on financial aid.

Course Load

A full-time graduate student must be enrolled in a minimum of nine credit hours per semester. A three-quarter-time graduate student must be enrolled in seven or eight hours per semester. A half-time graduate student must be enrolled in five or six hours per semester. Graduate course loads for summer terms are as follows: full-time, five hours or more; three-quarter-time, four hours; and half-time, three hours.

A student involved in equivalent academic endeavors, such as approved research projects or thesis writing, may request that the Graduate School dean certify full- or part-time status. Students must have the Graduate School dean's permission to enroll in more than 15 hours in one semester.

Schedule Changes

UALR's schedule change procedures and deadlines are available on BOSS. Adding or dropping a course, transferring from one section to another, changing credit status in a course, or changing any other schedule must be approved by the graduate program coordinator.

Undergraduate Students in Graduate Courses

Undergraduate UALR students may enroll in up to 6 hours of graduate courses if they are within 15 hours of completing graduation requirements, have a 3.0 GPA, and have the approval of the graduate program coordinator or appropriate department representative, course instructor, and the Graduate School dean. These courses may be used to satisfy baccalaureate degree requirements, subject to approval of the undergraduate major advisor, or they may be reserved for credit in a graduate program. The request form is available from the Graduate School or program coordinator and must be completed before registration. Passing such courses with a B or greater does NOT guarantee acceptance into any graduate program at UALR.

Transfer of Credit

Graduate credit may be granted for equivalent course work from other institutions with approval of the appropriate program coordinator and the Graduate School dean. Such credit may not exceed one half of the program requirements, exclusive of thesis or other exit project credits; must be no more than five years old; and must have a letter grade of B or greater.

Courses without letter grades (graded credit, satisfactory, pass) must be accompanied by official evidence that the grades equated to a B or greater at the institution at which they were earned. Accredited graduate programs usually accept transfer credits only from similarly accredited programs. Credit earned at an online university and for-profit institutions will be evaluated on a case-by-case basis.

Transfer grades are not computed as part of a student's GPA. Individual programs may accept fewer transfer hours than the Graduate School maximum. Applications for transfer of credit for previous course work must be made and recorded within 12 months of admission to the UALR Graduate School. Credits accepted for transfer will be posted when the student's Application for Transfer Credit has been approved and forwarded by the Graduate School dean.

Courses and Credits

Courses with 5000-level numbers are dual-listed (4000/5000) for both undergraduate and graduate credit. That is, each 5000-level graduate course has a parallel 4000-level undergraduate course. UALR students who have completed a 4000-level class as part of a baccalaureate degree cannot receive credit toward a graduate degree by enrolling in the dual 5000-level course. Courses with numbers 7000 or above are designated exclusively for graduate students. Numbers 1000-4999 (undergraduate courses) and 6000 (UALR Law School program courses) are not in this Catalog. For all UALR course numbers, the second digit indicates the number of credit hours earned for the course.

Credit Limits

For most programs, no more than 40 percent of a program's required minimum credit hours may be earned in 5000-level courses. For example, if a program requires a minimum of 30 hours, no more than 12 hours may be 5000-level and at least 18 hours must be 7000 or above. Individual programs may allow fewer 5000-level hours than the Graduate School.

Independent Study Courses

The Graduate School reserves the right to question and restrict the number of independent or directed study courses applied to graduation requirements. Individual programs may limit the number of such hours credited toward the degree.

Non-program Graduate Courses

A number of UALR departments that do not offer graduate programs offer one or more graduate courses that may serve as electives in other departments' programs. Students wishing to apply such course credits to a degree program at UALR or elsewhere should contact program officials in advance to find out whether the course is appropriate to the contemplated degree program.

Courses Applied Toward Two Degrees

Generally, credits earned to satisfy the minimum requirements of one graduate degree may not be counted toward a second graduate degree. However, if two graduate programs require the same or similar courses, a student who has completed one of the degrees or is concurrently pursuing both degrees (such as two master's degrees) may, with approval of the Dean of the Graduate School, request an exception to the general rule. Exceptions may not authorize duplicate credit for more than 12 hours or result in a combined total of less than 60 graduate hours for two UALR master's degrees. Similarly, exceptions may not include courses required in the prerequisite master's degree for admission to a doctoral program.

The concurrent Master of Business Administration/Juris Doctorate degree program is offered through the UALR College of Business in conjunction with the UALR School of Law. The program allows students to earn MBA and JD degrees concurrently with less time and fewer credit hours. Contact the business administration program coordinator for more information.

The Master of Public Administration degree can also be earned in conjunction with the Juris Doctorate degree. The program allows students to earn MPA and JD degrees concurrently with less time and fewer credit hours. Contact the public administration program coordinator for more information.

Workshop Credit Limits

No more than six credit hours in workshop courses, approved by the program coordinator and Graduate School dean, may be counted toward degree requirements. Individual programs may accept fewer hours. Credit earned at virtual universities and for-profit universities will be evaluated on a case-by-case basis.

Grades and Grading Policies

The graduate grading system used by UALR is as follows:

A, excellent;	<p>The Graduate School uses the grade point average (GPA) for the program in which the student is currently enrolled and any other course taken while enrolled in the current program as the standard measure for retention and graduation requirements. The GPA is determined by assigning quality points to each letter grade (A=4, B=3, C=2, D=1, F=0), multiplying by the number of credit hours in the course, and dividing by the total number of hours attempted.</p> <p>The semester grade report shows both the semester GPA and a cumulative GPA based on all graduate work taken at UALR. Except when noted in the catalog, a grading scheme of CR/NC must be arranged and agreed upon by the instructor and student before the class begins. The same rule applies to auditing a class.</p> <p>If grades are posted, it is done in such a way that students can identify only their own grades. Students in debt to the university will not receive a semester grade report until the debt is satisfied. The formal process to appeal a final grade decision is described in the UALR Student Handbook, found online at ualr.edu/deanofstudents/student-handbook-4/.</p>
B, acceptable;	
C and D, below acceptable standards;	
F, failure;	
I, incomplete;	
IP, in progress,	
CR/NC, credit/no credit;	
AU, audit; and	
W, withdrawal.	

In Progress (IP) Grade

An In Progress grade (IP) is used for thesis, dissertation, or other similar classes that have a time obligation that is longer than the traditional semester or session. IP indicates that the student is making satisfactory progress in that class. Students who do not make satisfactory progress will be granted no credit. The instructor assigning the IP grade will replace it with a letter grade that reflects the quality of the finished work. In unusual circumstances, such as a student not finishing the obligation in a length of time deemed reasonable by the professor or the professor assigning the grade being unable to change the grade, the graduate coordinator, after consulting with the Graduate School dean, may change the grade to CR in the CR/NC scheme or A-C in the A-F scheme. The IP grade is distinct and different from the Incomplete (I) grade. The IP grade is not calculated into the grade point average. IP grades will be administratively converted to CR/NC or A-F, as described above, after six years have elapsed.

Repeated Courses

Only under extraordinary circumstances will a student be allowed to repeat a course in which he/she has earned a grade of C or less and then only with the written recommendation of the appropriate departmental chairperson or program director, school director or college dean, and final approval by the Graduate Dean. Each subsequent course repeat must be approved separately. If there have been changes in course numbers or titles, the student must first obtain the approval of the chairperson of the department offering the course to be assured it is an identical course.

When a graduate course is repeated, the first grade remains part of the record and is computed in the final graduate GPA. Degree credit will only be granted for the course once, and that will only occur if the repeated course grade is a C or greater (i.e., a student will lose all degree credit for the course if the repeated course grade is an F). Once a degree has been awarded, no requests to repeat a course will be accepted.

Academic Probation

Graduate students who do not maintain at least a 3.0 cumulative GPA (B average) in all courses in their current program will be placed on academic probation at the end of the semester, regardless of whether or not they receive notification. Students who fail to remove the probationary status by raising their GPAs to 3.0 or better within 12 credit hours are subject to dismissal from the Graduate School.

Note: some programs may have higher GPA or course program performance requirements.

Incompletes and Withdrawals

Incompletes and withdrawals are viewed unfavorably by the graduate faculty, graduate dean, and prospective employers. An incomplete (I) grade must be requested by the student and is given when the instructor deems that circumstances beyond the student's control prevented timely completion of course requirements. An instructor does not give an incomplete (I) grade to a student who stops attending class without prior instructor approval or who fails to earn a passing grade during the course of the semester term. A written contract, signed by the instructor and student, sets the date and condition for completing the class. Most I grades can be removed within 90 days; all must be removed within one year, or these grades are converted to Fs. Students with excessive incompletes may be restricted in the number of hours they may take in a subsequent semester. A withdrawal (W) is recorded when a student drops a course after about the first week of classes or withdraws from all university course work during a semester. A pattern of class or semester withdrawals can indicate unsatisfactory progress and may lead to dismissal from the graduate program or Graduate School. (See also "Academic Probation," "Schedule Changes," and "Withdrawal from the University" in this section of the catalog.)

Transcript Policies

UALR transcripts are issued from the Office of Records and Registration only at the request of the student. No transcript or other evidence of attendance is issued to or for a student who is in debt to the university. Each transcript includes the student's complete record at UALR. Transcript requests must be made at least one week before the desired date of issue. A small fee is charged for each transcript issued. Contact the Cashier's Office at ualr.edu/bursar. Transcripts presented for admission or evaluation of credit to UALR become part of the student's permanent record and are not reissued. Transcripts from another institution must be sent to UALR directly from that institution.

Graduation Requirements and Policies

All UALR graduate degree programs require at least 30 hours of graduate credit and graduate certificate programs require at least 12 hours of graduate credit. All programs require a cumulative GPA of at least 3.0 on all graduate courses taken for or during that program for graduation. In extremely rare circumstances and with the approvals of their graduate coordinators and the Dean of the Graduate School, students can take up to nine hours beyond their program requirements to achieve the minimum GPAs.

Doctoral programs require a residency as described in the sections on specific degrees. The Residency Plan Form must be submitted before the end of the first semester of the residency. All requirements must be completed within seven consecutive calendar years for master's degrees and within ten consecutive calendar years for specialist and doctoral degrees. Time lost for military service is excluded from the time requirements.

Individual programs may have additional graduation requirements or higher credit hour or GPA minimums. Students should check the graduation requirements for the specific programs listed in this catalog.

Program Advising

All degree-seeking students should work closely with their program advisors to prepare a plan of study. Students seeking degrees should meet with their advisors immediately after being admitted. The program's advising form lists degree requirements and the plan of study for satisfying them.

For doctoral students, the process may involve filing an Advancement to Candidacy notice. Doctoral students are awarded candidacy status by their programs after demonstrating the ability to satisfy degree requirements and showing significant commitment to earning a degree through fulfilling the residency requirement. Program requirements for advancement to candidacy differ and may include cumulative or comprehensive examinations or the proposal and defense of a dissertation topic. Advancement normally is the starting point for formal dissertation work.

Graduate Student Responsibilities

Graduate students are responsible for all aspects of their academic progress and for being familiar with UALR's graduate education policies and procedures at the programmatic, departmental, college, and university levels. These include, but are not limited to academic requirements, timetables and important dates, and research compliance and integrity issues. These requirements may be communicated in a variety of fashions, including through the following sources.

- The UALR Graduate Catalog
- The university's student handbook
- The university's graduate handbook
- The program's graduate student handbook
- The program's website
- Information sent to the student's UALR email address

For multi-institutional programs, the joint graduate student handbook and any corresponding documents from the other participating institution(s) may also apply. Each student should communicate regularly with his/her advisor, advisory committee, and/or graduate program coordinator to ascertain clear expectations for degree or certificate completion.

Academic and Research Integrity

Academic integrity is a cornerstone value of the UALR Graduate School. Every UALR graduate student is expected to perform his/her academic, research, artistic, scholarly, and other creative activities in a fashion reflective of the highest standards of the university, his/her profession, and a functional civil society. Academic dishonesty is considered to be a violation of those standards. Academic dishonesty involves cheating in the most general sense of the word and includes but is not limited to the following:

- The giving or receiving of any unauthorized assistance between multiple students
- The giving or receiving of unfair advantages
- Plagiarism (i.e., claiming that one owns the ideas, calculations, words, or other work of others)
- Falsification of data
- Attempting any of the acts described above

A student's instructor, advisor, graduate advisory committee, program director, department chair, dean, or their representatives may initiate actions against a graduate student who is suspected of academic dishonesty. Disciplinary actions will follow procedures found in the UALR Academic Integrity and Grievance Policy (ualr.edu/policy/home/student/academic-integrity-and-grievance/).

UALR is equally committed to complying with all federal, state, and local laws and regulations, as well as professional and societal standards related to the ethical and honest conduct of research. The irresponsible conduct of research includes, but is not limited to, violation of laws, regulations, and professional standards in the following areas:

- Data acquisition, management, sharing, and ownership
- Conflict of interest and commitment
- Human subjects
- Animal welfare
- Research misconduct (e.g., misuse of research funds)
- Publication practices and responsible authorship

Collaborative Science

For additional information about the responsible conduct of research with respect to human and animal subjects, pathogens, chemicals, radiation, and other potentially dangerous materials, see the section on Research Compliance in the Catalog. When allegations of misconduct arise in the research arena, policies and procedures found in the Research Compliance Policy will be followed. A student's instructor, advisor, graduate advisory committee, program director, department chair, dean, or their representatives may initiate actions against a graduate student who is suspected of research misconduct, in accordance with procedures found in the UALR Academic Integrity and Grievance Policy (ualr.edu/policy/home/student/academic-integrity-and-grievance/).

While a student is under investigation for academic dishonesty or research misconduct, he or she may not drop a course or withdraw from the university, sit for a program examination (thesis or dissertation defense or degree capstone examination), or have his or her thesis or dissertation accepted by the Graduate School. If the student is found to have violated academic integrity, he or she may be subject to a variety of disciplinary actions, including dismissal from the Graduate School.

Research Compliance

All graduate students at UALR must perform their academic, research, artistic, scholarly, and other creative activities in compliance with federal, state, and local laws and regulations. These activities should reflect the highest standards of the university, the student's profession, and functional civil society. Student researchers are expected to ensure the responsible and judicious treatment of humans and animals and the safe handling of biological materials (such as recombinant DNA, living tissue, pathogens, etc.).

Before collecting data that involves human subjects, animals, or biomaterial, graduate students must consult with the UALR Research Compliance Officer and submit all research protocols to the appropriate research compliance committee for review and approval. Please note: under no circumstances can compliance approval be given retroactively. Students who fail to obtain this approval before beginning their research will be considered to be in violation of research ethics as well as federal laws and regulations. As a result, he or she may face disciplinary action, including dismissal from the Graduate School. Reports of possible research compliance violations should be reported to the UALR Compliance Officer.

UALR's Research Compliance committees include the following:

- Institutional Review Board (IRB) for human research subjects
- Institutional Animal Care and Use Committee (IACUC) for animal research subjects
- Institutional Biosafety Committee (IBC) for biological research

Without approval from one of these committees, students may not present their research findings in any public forum, including but not limited to the following situations:

- Publications in public domain literature (such as books, journals, conference proceedings, etc.).
- Oral presentations at public conferences, workshops, or other meetings
- Dissertations or theses submitted to the Graduate School or ProQuest Database

Information related to UALR research compliance may be obtained from the UALR Research Compliance Office located on the fifth floor of the Ottenheimer Library. Contact the Research Compliance Officer at (501) 569-8657.

Theses and Dissertations

If a master's thesis is required for a student's degree completion, the thesis should be started at least one year before the planned graduation date. The doctoral dissertation should be commenced shortly after acceptance into the doctoral program. Document titles and the names of committee members should be filed on an Appointment of Supervisory or Examining Committee Form with the Graduate School at the beginning of the projects. All theses and dissertations must be formatted according to the current edition of *The UALR Dissertation and Thesis Guidelines*, available online at ualr.edu/gradschool/home/thesis-and-dissertation-information/.

Most activities, including all theses and dissertations and some class projects, in which information about humans is recorded require approval by the UALR Institutional Review Board (IRB) before they are initiated. Any project that involves vertebrate animals must have approval from the UALR Institutional Animal Care and Use Committee (IACUC) before it may be initiated. Faculty and graduate students are responsible for understanding and complying with all institutional regulations regarding human and animal subjects. Failure to obtain prior approval constitutes unethical conduct of research and has serious consequences. For additional information regarding IRB or IACUC requirements see the ORSP website (ualr.edu/orsp/) or contact the chair of the appropriate committee.

The thesis/dissertation committee is chosen by the project advisor and the student. A thesis committee must comprise a minimum of three members, including the advisor; a dissertation committee must comprise a minimum of four members, including the advisor. Further parameters for committee selection can be obtained from graduate coordinators.

The Graduate School requires the electronic submission of all theses and dissertations to ProQuest. One typed, unbound copy of the completed and successfully defended document must be delivered to the Graduate School before the deadline given in the Dissertation and Thesis Guidelines. Though it is not required, students may elect to pay for bound copies of theses/dissertations at the Cashier's Office, and the Graduate School will forward copies for binding. See UALR Dissertation and Thesis Guidelines for more information and fees.

After review by the Graduate School dean, the document will be returned to the student for corrections and submission to ProQuest. Deadlines for the receipt of all graduation requirements are given in the Dissertation and Thesis Guidelines. The transcript showing the degree earned will not be released until the dissertation or thesis has been approved in ProQuest.

Comprehensive Examination

Comprehensive examinations are required in many programs. Each program defines specifications for its examination, and the examining committee is appointed by the Graduate School dean on the recommendation of the program coordinator.

Graduation Application

Students may graduate at the end of fall, spring, or summer terms. The Graduate School graduation application should be completed and the graduation fee (required of doctoral students only) paid by the deadline for the semester in which the student expects to complete degree requirements. This form certifies that all requirements have been or will be fulfilled by the graduation date, and it must be approved and signed by the program coordinator and Graduate School dean. Timely submission of the graduation application is essential. Deadlines can be found in the UALR Guide and Schedule of Classes available on BOSS. Failure to apply to graduate by the published deadline will result in the student not being able to graduate that semester.

Commencement

The Graduate School expects all graduate students to participate in the Commencement Program close to or in the semester they complete degree requirements. Commencement ceremonies are conducted twice a year, at the end of the fall and spring semesters. Master's students may participate in spring commencement if they expect to graduate during the following summer terms. However, summer graduates' names will appear in the fall graduation program. Specialist and doctoral students must be completely finished with all elements of their degrees before they may march. Caps and gowns may be ordered through the UALR Barnes and Noble Bookstore.

Academic Honors

Alpha Epsilon Lambda

UALR is home to the Zeta chapter of Alpha Epsilon Lambda (AEL), The Academic Excellence and Leadership Honor Society of Graduate and Professional School Students. Students are nominated for membership on the basis of proven leadership capabilities and an academic record placing them in the top 35% of their class. Find out more about the Zeta chapter of AEL at ualr.edu/gsa/.

Who's Who Among Students

Who's Who Among Students in American Universities and Colleges, a national honors program, recognizes exceptional students who have distinguished themselves in scholarship, citizenship, and campus and civic contributions. Students are nominated by faculty, staff, colleagues, or themselves. A UALR committee of faculty, staff, and students reviews the nominations. The names of students selected to receive the honor are presented to Who's Who to be included in the national publication.

Course Attendance

All graduate students at UALR are expected to attend class regularly. Each faculty member has the right to establish requirements for attendance and participation unique to each of his/her courses. Course requirements (e.g., homework assignments, examinations, oral presentations, laboratory experiments/reports, participation in discussion, etc.) are not waived due to absence from class. Instructors may establish the academic consequences, including course failure, of excessive absences. When students will be away from class for reasons of health, family matters, or other personal or professional reasons, the student should inform the instructor at his/her earliest opportunity. The student and the instructor should discuss whether and how missed work can be made up, how the absences may affect the grade, and other academic issues.

Withdrawal from the University

Students voluntarily withdrawing from the university must complete a Withdrawal Form and an exit interview with a staff member in the Office of Records and Registration (not the Graduate School), as well as in the Office of Financial Aid if they are receiving financial aid. If unable to withdraw in person, students should contact the Office of Records and Registration. Students who fail to withdraw officially and do not complete academic assignments will be reported as having failed in their work for the semester and will receive F grades on their official transcripts.

The last day to officially withdraw from the university without a grade penalty is posted with refund information in the UALR Registration Guide and Class Schedule (boss.ualr.edu) for each semester or term. Graduate students who have questions about voluntary withdrawal from the university should contact the Office of Records and Registration or the Graduate School dean.

Student Records and Directory Information

As custodian of educational records, the university assumes the trust and obligation to ensure the full protection of these records. The university's policies and procedures are in full accord with the final regulations implementing the Family Educational Rights and Privacy Act of 1974. Copies of this act and its implementing regulations are on file in the Offices of the Dean of Students and Records and Registration and are on reserve in the Ottenheimer Library. Only records that are reasonably necessary or useful to the University's purpose are maintained. Students have the right to see their records and to request amendment if necessary. Policies and procedures regarding student records are detailed in the UALR Student Handbook found online at ualr.edu/deanofstudents/student-handbook-4/.

Student educational records maintained by the university fall into two general categories: directory information and student records. Directory information is public information and includes a student's name; local and permanent addresses, email, and telephone numbers; photograph; date and place of birth; nationality; religious preference; marital status; parents' or spouses' names and addresses; participation in officially recognized activities and sports; weight and height (if athletic team member); student classification; hours enrolled in and completed; major field of study; dates of attendance; degrees, scholarships, awards, and honors received; matriculation and withdrawal dates; and most recent previous educational institution attended. This information is available to the public.

The University publishes a Student Directory of enrolled students each fall. Currently enrolled students may request that all or part of their directory information not be made public by completing an appropriate request form in the Office of Records and Registration no earlier than the first or later than the eleventh day of class. This request will remain in effect until changed by the student in writing, and the data will be treated as student records information. Please consider carefully the consequences of withholding this information. The university does not assume liability for honoring the request to withhold these records, nor does it assume responsibility to contact a student for permission to release them.

Student records information is confidential and includes all other information about a student such as grade reports, transcripts, financial aid records, etc. This information is available only to the student, university officials, and other authorized persons as described in the UALR Student Handbook.

Student Conduct

Graduate students neither lose the rights nor escape the responsibilities of citizenship through enrollment at UALR. It is expected that Graduate School students will conduct themselves professionally and honorably throughout their association with the university. It is the student's responsibility to be familiar with the UALR Student Handbook, which details student rights, responsibilities, and expected conduct; rules and regulations of the university; and procedures for grievance, appeals, due process, etc. Graduate students must also be familiar with the Graduate Student Handbook, located at ualr.edu/gradschool.

In addition, students are expected to exemplify and adhere to the codes of conduct prescribed by the professional organization in their fields of study. Students who fail to adhere to these standards are subject to dismissal from their graduate program and the Graduate School.

Appeals and Grievance Procedures

Graduate programs have established processes for appeal of admission decisions and other academic matters. Admission matters are handled by the appropriate program coordinator and the Graduate School dean. Other matters may involve the appropriate department chairpersons or college deans.

Appeal and grievance procedures for academic and behavioral problems are detailed in the UALR Student Handbook, available at the Information Center and the Office of the Dean of Students or online at ualr.edu/deanofstudents/student-handbook-4/. The Handbook outlines student rights, responsibilities, and behavior; provides information on conduct; details due process procedures for grades and other academic matters; and addresses behaviors such as cheating, plagiarism, and other breaches of acceptable conduct.

Graduate Student Association

The Graduate Student Association (GSA) provides assistance and support for new and continuing graduate students, offers leadership and organizing experiences and opportunities for creative interaction between students in different programs, and aids the Graduate School in addressing the needs and issues of its students. All graduate students, full-time or part-time, are automatically members and are encouraged to participate.

The GSA elects and appoints students to committees that perform various services for the student body and campus community. The GSA has membership in the National Association of Graduate and Professional Students.

GSA takes an active part in campus life and provides social, academic, and policy interaction among students and faculty. For example, each spring, the GSA participates in the Research Expo, at which students present creative and scholarly works to the University community. For more information about the GSA, visit ualr.edu/gsa.

RESEARCH, LEARNING, AND SERVICE

Arkansas Small Business and Technology Development Center

The Arkansas Small Business and Technology Development Center (ASBTDC) is a statewide program that provides training, information, and consulting services to existing and potential business owners in the state. It consists of the state office in Little Rock, seven regional offices, and three subcenters at other universities. The ASBTDC is administered through a cooperative agreement between UALR and the U.S. Small Business Administration.

The ASBTDC (asbtcd.org/) offers more than 180 training programs annually, some 70 of which are programs of the state office. Most of the training programs are taught by professionals from the business community and faculty from the College of Business. Program topics include starting a business, understanding financial statements, managing cash flow, financing, business plan writing, procurement, home-based businesses, marketing and advertising, small business tax issues, personnel issues, and more.

Arkansas Space Grant Consortium

UALR is a partner of this consortium (asgc.ualr.edu/), which promotes the involvement of the State of Arkansas in NASA activities. The consortium conducts activities to create awareness of NASA activities and research opportunities, to develop aerospace educational activities and research capabilities, to recruit and train faculty and students to participate in educational and research programs, to develop and disseminate programs directed to K-12 schools and the general public to enhance awareness of NASA's mission and programs.

Center for Arkansas History and Culture

The mission of the UALR Center for Arkansas History and Culture (CAHC) is to ensure that the history of the state is accessible through the collection and maintenance of archival material, to promote an understanding of the past through scholarly exchange and public dialog, and to support academic achievement through the education of undergraduate and graduate students. The center's archives are a repository that identifies, collects, and preserves Arkansas records and papers that are both of enduring value and in support of the university mission. For more information about CAHC, visit ualr.edu/cahc/.

Center for Applied Studies in Education (CASE)

CASE's (ualr.edu/case/) mission is to improve the quality of education and human services in Arkansas and globally through the following inter-related activities:

- Conducting research on the effectiveness of programs and practices in education and human services.
- Providing technical assistance in statistics, research design, measurement methodologies, data management, and program evaluation to students, faculty, and external groups and agencies.
- Providing formal and informal consultation, technical assistance, and instruction to students, faculty, programs, and external groups and agencies.
- Offering professional advice and consultation to the education and human service communities.

Center for Gifted Education

The Center for Gifted Education provides programs and services to talented students and their families, teachers, and administrators. Established in 2001, it is one of only twenty-five such centers nationwide. The goals of the Center (ualr.edu/gifted/) are the following:

- To provide graduate education (Licensure, Master of Education, Summers and Saturdays Masters Program, Doctor of Education) for individuals interested in teaching talented youth and in assuming leadership positions in the field of gifted education.

- To provide professional development programs and services to educators who serve talented youth.
- To engage in research and scholarly inquiry on talent development among high ability learners and the educators who serve them.
- To provide a learning laboratory for pre-collegiate learners and their educators.
- To serve as a community resource for talented youth, their families, school districts, and state departments of education.

Institute for Economic Advancement

The Institute for Economic Advancement (IEA) is the fact-finding and extension arm of the College of Business at UALR. Its mission is to support statewide economic development activities through research, information, service, training, and education. IEA acts as the State's official representative for several entities such as businesses, all levels of government, labor organizations, educational institutions, nonprofit agencies, and the public. Contact information is provided on the IEA website at aiea.ualr.edu.

Within IEA are the following units:

The Research Group conducts industry and market studies, economic and feasibility studies, demographic research, and survey research and analysis for a diverse group of clients, including businesses, government agencies, and nonprofit organizations. The unit provides quarterly economic forecasts for the state as well as economic development recruiting assistance through the Development Information Network of Arkansas (DINA), a website with comprehensive economic development information for Arkansas cities. It prepares a number of publications on a regular basis.

The Census State Data Center is the official representative for the Census Bureau in Arkansas, providing census information for a variety of users. Under this unit, the Children's Research Center collects, processes, and distributes data relating to the status and well-being of children in the state. The Geographic Information System (GIS) Applications Laboratory provides analysis and mapping of geographic, demographic, and environmental data.

The Labor Education Program provides educational services and training for labor organizations and workers, including topics such as collective bargaining, leadership, and workplace safety. Under this unit, the Workplace Skills Enhancement Program (WSEP) uses a work-related curriculum to teach basic skills in reading, writing, mathematics, and problem-solving needed for outstanding job performance.

The Management Education Program provides public seminars and customized training for businesses in management and supervisory skills. Topics cover the entire spectrum of management development.

The IEA Research Library is a non-lending library serving the needs of IEA researchers, UALR faculty and students, state agencies, the business community, and the public. The library contains information in specialized areas ranging from commerce, census, and demographics to labor, management, taxation, and transportation.

Institute of Government

The Institute of Government (IOG) in the College of Social Sciences and Communications combines all elements of the university mission in one entity. In addition to housing the master's program in public administration (MPA) and its faculty, it provides public management and leadership training through the Arkansas Public Administration Consortium (APAC). The Research Group offers a wide range of professional services and applied research projects for nonprofits and state and local governments.

IOG's graduate program in public administration is fully accredited by the National Association of Schools of Public Affairs and Administration (NASPAA) and strives to integrate its faculty and students fully in all of the institute's major functions, ranging from public management, leadership training, and public policy studies, to program evaluations.

The APAC includes three member universities—UALR, The University of Arkansas, Fayetteville, and Arkansas State University—and coordinates internship placements statewide for their MPA students, and administers public and nonprofit management training certificate programs.

IOG's research group conducts short-term and ongoing applied research and evaluation studies in all areas of state and local government as well as nonprofit organizations. More information is available at IOG's website, ualr.edu/iog/.

Little Rock Writing Project

The Little Rock Writing Project, housed in the UALR Department of Rhetoric and Writing, was established in 1987 as part of the National Writing Project network of more than 160 sites dedicated to supporting and improving writing and the teaching of writing worldwide. It locates, nurtures, and supports teacher excellence through teacher-to-teacher training and teacher research.

The project offers summer and school-year programs in which teachers from across central Arkansas work with UALR faculty and trained writing project teacher consultants to improve their writing and teaching skills. Support is also provided for innovative approaches to teaching and assessing writing in individual classrooms. During the school year, periodic meetings of large and small groups of project teachers and staff members encourage and sustain quality teaching and learning. In addition, the project conducts staff development programs through educational cooperatives and individual school districts. Please visit the Little Rock Writing Project website at ualr.edu/rhetoric/little-rock-writing-project/ for more information.

MidSOUTH Center for Leadership and Training

The center (midsouth.ualr.edu/) is the community service unit of the UALR School of Social Work. The center provides leadership, training, and product support in the areas of addiction, child welfare, technology, distance learning, and organizational development. The center has five training locations across the state and offers educational stipends for Bachelor or Master of Social Work students and selects multi-disciplinary students who agree to work for the Arkansas Division of Children and Family Services (DCFS).

Nanotechnology Center

The Nanotechnology Center (ualr.edu/nanotechnology/) at UALR is a young organization that is strongly establishing itself at the forefront of Nanotechnology advances in the state and region. Thanks to visionaries in Arkansas government, UALR received approval to spend \$5.9 million in Arkansas General Improvement funds to establish the Nanotechnology Center. With the Nanotechnology Center at UALR, Arkansas is well poised to take advantage of this exciting new world of economic opportunities and capitalize on nanotechnology breakthroughs discovered at UALR and other universities throughout the state. Sharing the brain power of academic and corporate partners throughout the State of Arkansas and its national and global network of partners and collaborators, the Nanotechnology Center is a state-of-the-art, user-oriented facility focused on research, education, and economic development.

Office of Research and Sponsored Programs

The Office of Research and Sponsored Programs (ORSP) provides information, services, and support so that members of the UALR community may compete successfully for outside funding to conduct scientific research; create works of art; compose music; write books and articles; improve their performance in the classroom; and better serve their students, professions, and the public. In accomplishing this mission, ORSP ensures accountability, compliance, and stewardship for sponsored programs as directed by all applicable federal, state, local, and institutional policies, procedures, and regulations.

ORSP provides service and professional guidance by helping the campus community locate external funding sources, providing assistance in budget development, performing proposal and contract review and submission, reviewing, negotiating, and accepting awards, maintaining oversight and support for awarded projects, and by providing education, outreach, and professional development to UALR faculty and staff to advance research, instruction, and other sponsored activities at UALR. Learn more about ORSP by visiting their website, ualr.edu/orsp/.

Sequoyah National Research Center

The Sequoyah National Research Center is the largest collection of American Indian and Alaska Native newspapers and periodicals in hard copy in the world. The archive consists of nearly a million pieces, covering over a century and a half of native writing on a myriad of subjects. Many tribal publications are included, as well as literary efforts and documents concerning medicine, history, the environment, and other topics.

The center supports research activities, publishes its newsletter American Native Press, and maintains a website found at ualr.edu/sequoyah, which includes the world's largest electronic database on American Indian writing. The collection provides research support for many programs in the university. Open to students, scholars, and the public, the collection is housed in the University Plaza. Materials are available during regular campus hours.

STRIVE Program

The Arkansas STRIVE program (ualr.edu/strive/) places middle, junior high, and senior high school science, math, and computer teachers into summer research positions in industries, businesses, government agencies, universities, research facilities, and nonprofit organizations. The program works with the teachers to develop lessons from their summer research experiences that they can use in their classes. The mission of the program is to enhance the professional growth of Arkansas math, computer, and science teachers by:

- Providing teachers with hands-on, real-world research experiences that expand their scientific and technological knowledge.
- Applying the newly acquired knowledge in the classroom and enriching the education of students.
- Developing the teachers' abilities to use inquiry-based and problem-based teaching.
- Increasing the technological knowledge of students and their interests in careers in science, math, and technology.

TUITION AND FEES

Graduate Tuition (per credit hour)	
Arkansas Residents	
Per Semester Credit Hour	\$300.00
College of Business Courses	\$325.00
Donaghey College of Engineering and Information Technology Courses	\$325.00
Nonresidents	
Per Semester Hour	\$690.00
College of Business Courses	\$700.00
Donaghey College of Engineering and Information Technology Courses	\$700.00
Per Semester Hour	
Required Fees:	
Facilities (excluding Law School)	\$8.00
Athletic	\$18.00
Health Services	\$17.25
	\$2.20
Technology Infrastructure	\$2.75
Application Processing (1st Time Applicant)	\$40.00
Re-application Processing (Per re-application)	\$15.00
Public Safety	Fall & Spring: \$25.00 Summer: \$12.50
College Technology Fees:	
Arts, Humanities, and Social Sciences Courses	\$8.10-\$12.30
Business Courses	\$8.10
Education Courses	\$8.10
Engineering and Information Technology Courses	\$11.90
Professional Studies Courses	\$8.10
Science and Mathematics Courses	\$12.30
Off-Campus Courses (includes web based courses)	\$10.00 – \$25.00
Special Fees (as applicable)	
Campus ID Card Replacement	\$15.00
Installment Payment Plan	\$30.00
International Student Application	\$40.00
International Student Service (per term)	\$150.00
International Student Health Insurance (Market Rate)	per year \$1,210.00
Late Installment Payment Plan	\$100.00
Late Installment Payment (per payment)	\$30.00
Late Payment (depending on date)	\$50.00 – \$100.00
Late Registration	\$100.00
Library Non-student User Circulation	per semester \$45.00 per year \$100.00
Optional Individual Math Skills Review	\$150.00
Returned Check	\$20.00
Transcript (Official Copy)	\$5.00

Program Specific Fees	
Ph.D. and Ed.D. Degree Graduation Fee	\$80.00
Thesis Publication Fee	\$45.00
Dissertation Publication Fee	\$55.00
Art Studio Materials	\$12.00
Audiology/Speech Pathology Practicum	\$20.00
Education	
Experimental Learning Fee (per course)	\$25.00-\$60.00
Praxis Testing (Dependent upon subject)	\$65.00-\$90.00
Student Teacher Practicum Supervision	
In-state	\$210.00
Out-of-state	\$315.00
Music Private Applied Instruction	
half-hour lesson (1 credit hour course)	\$60.00
one hour lesson (2 to 4 credit hour course)	\$100.00
Nursing	
Testing	\$25.00
Clinical Nursing	\$30.00
Performing Arts Production	\$12.00
Social Work Placement (per semester)	\$60.00
Housing Fees	
Residence Hall	
Application Processing	\$35.00
Security Deposit	\$100.00
Fall and Spring Semesters (per term)	
Double Bedroom	\$1,818.00
Single Bedroom	\$2,539.00
Laundry Fee	\$33.00
Summer (per five-week term)	
Double Bedroom	\$489.00
Single Bedroom	\$700.00
Laundry Fee	\$11.00
Residence Life Programming Fee	
Fall and Spring (per term)	\$16.00
Summer (per term)	\$6.00
UALR-owned Houses and Apartments	
Price per month	
a) Depending on size, furnishings, and condition.	\$450-\$750
Meal Plans	
Residential Plans (per term)	\$500.00-1,800.00
Commuter Plans (per term)	\$100.00-\$1,000.00

For the most accurate and comprehensive tuition and fee information, visit ualr.edu/bursar/home/tuitionandfees/.

Tuition and fee charges for classes that are taken for audit are the same as those for credit classes. Other fees for seminars and special courses may be charged. All fees are subject to change without notice. All tuition and fees are due at the time of the student's registration. UALR accepts MasterCard, Visa, and Discover. Students whose tuition checks are returned are subject to administrative withdrawal. Any student who is an Arkansas resident and has reached the age of 60 years or older by the last day of registration may enroll (on a space available basis) free of tuition. In such cases, special fees for certain leisure science and music instruction courses are required. Students must provide proof of age to the Office of Admissions and Financial Aid.

Parking Fees

Every student who parks a motorized vehicle on the main UALR campus is required to register that vehicle with the Department of Public Safety and display a parking permit as instructed. There is no fee to register one vehicle. Permits for additional vehicles are \$20 annually.

Reserved parking fees are \$165.00 annually for twenty four hour access. Lot choices are lot numbers 3, 4, 5, 7, 8, 9, and the lower level of the parking deck. Reserved parking is available on a first come first served basis. Reserved parking may be arranged at the Department of Public Safety. Students are also allowed to park in the metered lots or UALR's parking deck. The fee for parking in the metered lots is \$1.00 per hour with a 2-hour time limit, and the fee for the parking deck is \$1.00 per exit.

Schedule Adjustment

Students who reduce their course load by dropping one or more courses may or may not be entitled to a reduction in charges. Visit boss.ualr.edu/ and choose the UALR Registration Guide and Class Schedule for the dates of the schedule adjustment period.

Tax-Deductible Educational Expenses

The cost of college educational expenses may be deductible on an individual's federal income tax return if classes are taken:

- To maintain or improve the skills required in the individual's trade or business, or required in performing a present job
- To meet the specific requirements of an employer or the requirements of law for retention of present employment, salary, or status
- Such that the criteria for the Hope Scholarship Credit or the Lifetime Learning Credit are met
- These credits can be applied to tax returns if the student meets the eligibility requirements.

This section should not be construed as tax advice. Students should consult a tax advisor or contact the local office of the Internal Revenue Service.

Withdrawal and Refund Procedures¹

Students voluntarily withdrawing from UALR must complete the University Withdrawal Form and have an exit interview with a staff member in the Office of Admissions and Financial Aid if receiving financial aid. Withdrawal forms are available in the Office of Records and Registration. The last day to officially withdraw from the University without a grade penalty is listed in the Academic Calendar and on the UALR website. Students who fail to officially withdraw will be reported as having failed the course work for the semester, and grades of F will appear on their official transcripts. Students who have questions about withdrawing should contact the Office of Records and Registration².

Students who officially withdraw from UALR (withdrawal from all classes) during a regular fall or spring semester are entitled to a refund of instructional fees in accordance with the following schedule:

1st class day through the 5th class day – 100%

6th class day through the 10th class day – 50%

After the 10th class day – None

To avoid charges for a summer term, a registered student must officially withdraw from all classes prior to the first day of classes for that term. Refund schedules for current terms may be found in the UALR Registration Guide and Class Schedule.

1. Non-attendance does not constitute a withdrawal.

2. An official withdrawal does not penalize or prevent a student from re-enrolling at a future date.

COLLEGE OF ARTS, LETTERS, & SCIENCES

Fine Arts, Suite 210, (501) 569-3296, ualr.edu/cals

Professor Shearle Furnish, Dean

Professor Anindya Ghosh, Associate Dean for Graduate Studies

By melding the classic arts and letters disciplines with science programs, the College of Arts, Letters, and Sciences is the academic centerpiece of the campus. There are 139 faculty and 40 staff members in the 11 academic areas of the new college, which include:

- Art
- Biology
- Chemistry
- English
- History
- International Studies and Second Languages
- Mathematics and Statistics
- Music
- Theatre and Dance
- Philosophy and Interdisciplinary Studies
- Physics

Program	Certificate or Degree Program	Department/School
Art	Master's (M.A.)	Art
Public History	Master's (M.A.)	History
Interdisciplinary Studies	Master's (M.A.)	Interdisciplinary
International and Second Language Studies	Master's (M.A.)	International and Second Languages
Applied Bioscience	Doctorate (Ph.D.)	Biology
Applied Science	Master's (M.S.)	Interdisciplinary
Applied Science	Doctorate (Ph.D.)	Interdisciplinary
Applied Statistics	Certificate	Mathematics & Statistics
Biology	Master's (M.S.)	Biology
Bioinformatics	Master's (M.S.)	Biology (Program entry is in EIT Section)
Bioinformatics	Doctorate (Ph.D.)	Biology (Program entry is in EIT Section)
Chemistry	Master's (M.A.)	Chemistry
Chemistry	Master's (M.S.)	Chemistry
Integrated Science and Mathematics	Master's (M.S.)	Interdisciplinary
Mathematical Sciences	Master's (M.S.)	Mathematics and Statistics

Master of Arts

The Master of Arts in Art program offers three concentrations: art history, studio art, and art education. For detailed information about the programs, visit the M.A. in Art website at ualr.edu/art/index.php/home/graduate-program/. The program is housed in the Department of Art, which is accredited by the National Association of Schools of Art and Design.

Art history is designed for persons interested in professional, academic, museum studies, or arts management careers and prepares students for doctoral study. It offers a broad-based study of the history of visual expression and opportunities for advanced research projects. Art historians analyze and articulate the meaning and form of human experience as embodied in works of art. The field encompasses the world of art and architecture as it exists today and has been understood visually and verbally in the past.

Studio art prepares persons to practice art in a professional capacity, to teach art, and for further study toward the terminal Master of Fine Arts degree. It offers professional development in a major art field and skill development for certified teachers of art. Major studio fields include drawing, painting, printmaking, photography, illustration and graphic design, sculpture, and ceramics. This concentration is designed for those with the potential to sustain productive careers as artists and who will continue to produce, exhibit, and approach their work critically.

Art education provides advanced experiences specific to art instruction for persons who come from a wide range of educational settings. Students gain a better understanding of the history of art education, various teaching philosophies and curricular approaches, theories of teaching and learning, assessment of children's art progress, teacher and program assessment, and research. This concentration does not lead to teaching licensure. The field encompasses the world of art and architecture as it exists today and has been understood visually and verbally in the past.

Admission Requirements

Prospective applicants are encouraged to schedule an interview with the program coordinator before applying, although this is not required. All application materials are due by April 1 for the fall semester and November 1 for the spring semester.

Admission requirements are as follows:

- Baccalaureate degree from an accredited institution with a cumulative GPA of 2.75 (4.0 scale) or 3.0 in the last 60 hours
- Two letters of recommendation (optional for students who have taken art courses at UALR during the three years previous to the application)
- Statement of objectives and goals (500-1,000 words)
- Graduate Record Examination (GRE) score is optional and may be submitted to bolster the application. (Application forms for some financial aid offered through UALR require information about the GRE score.)

Art History Additional Requirements:

- Undergraduate research paper. (preferably treating an art historical problem but may be in a related area such as literature, history, cultural or intellectual history, anthropology, or aesthetics)
- 18 undergraduate art history hours.

Studio Art Additional Requirements:

- CD Portfolio of 20 images
- 36 undergraduate art hours, including 15 in the major area and 9 in art history (18 major area hours for illustration and graphic design)

Art Education Additional Requirements:

- CD Portfolio of 20 images. (Not more than 8 images of the 20 may be of the students' work. The applicant's work must be clearly labeled.)
- 21 hours of studio art and a minimum of 9 hours in art history.

Official transcripts, Graduate School Application Form, GRE score (if used), and letters of recommendation should be sent to the UALR Graduate School. Other requirements should be sent to the program coordinator in the Department of Art.

Transfer Credit

Up to six graduate hours with grades of B or greater earned in the past five years may be transferred from another accredited institution.

Special Students

Students admitted to the Graduate School as a special student, but not the art program, may enroll in courses only with the coordinator's and instructor's permission. If later admitted to the art program, the student may not apply more than six hours (with grades of B or greater) toward program requirements.

Program Requirements

All students must maintain at least a 3.0 GPA. Only twelve hours at the 5000 level may count toward the degree; all remaining hours must be 7000-level. Grades of "incomplete" are discouraged, and students with one or more "incompletes" may be restricted in the number of hours they may take in a subsequent semester. An Advancement to Candidacy Examination or Critique is required. Students are also expected to participate regularly in special seminars and workshops and to attend lectures and gallery openings organized by the department.

Art History (ARHA)

The art history concentration requires 30 graduate credit hours, including 5300 Studies in the History of Art; 9 additional 5000-level art history lecture hours; 3 hours each in Renaissance and Baroque, 18th- and 19th-century, and 20th-century art; 6 approved elective hours; and a thesis with oral defense.

The thesis topic must be selected before completing 21 hours and must be approved by the thesis advisor and program coordinator before it is submitted to the Graduate School dean. The thesis must demonstrate the candidate's capacity for high-level, independent research. In addition, it must conform to the deadlines, requirements, and standards of the Department of Art and Graduate School. Thesis regulations are available from the program coordinator.

Students who intend to complete degree requirements during the summer must anticipate professional absences for at least part of the summer.

Language Requirement

In addition, students must demonstrate proficiency in a foreign language. A reading knowledge of French or German is normally expected. Proficiency may be demonstrated by successful completion of an undergraduate intermediate level course, or showing that level of proficiency on an examination approved by the Department of International and Second Language Studies. This should be done as early as possible in the course of study.

The Advancement to Candidacy Exam must be taken when the student has successfully completed between 9 and 15 program hours. It includes slide identifications of major monuments from all periods and several essays covering material from various periods. Upon completion of the exam, the faculty may advise the student to continue in the program or repeat earlier course work, or the student may be dismissed from the program.

Sample Program

May be adapted to individual student's qualifications.

ARHA 5300 Studies in the History of Art

ARHA 5305, 5306, 5384, 7315, or 7316

ARHA 5307 or 7327

ARHA 5308, 5387, or 7328

9 additional art history hours

6 elective hours (art history, studio art, or other approved)

ARHA 7399 Thesis

Studio Art (ARST)

The studio art concentration requires at least 36 graduate credit hours, including 18 hours in a major studio field (or 12 major and 6 minor hours); 9 art history hours; 3 approved liberal arts hours (may be upper-level undergraduate); 3 elective hours; and ARST 7399 Thesis. A foreign language is not required.

Students work with a faculty advisor in the major studio field to design a course of study. Courses are divided into Level I and Level II. The Advancement to Candidacy Critique must be passed before enrolling for ARST 7399 Thesis.

The Advancement to Candidacy Critique, which is open to all faculty, is scheduled when all Level I courses have been completed with a cumulative 3.0 GPA. The student's portfolio and all work in the program are reviewed by a faculty committee of at least three persons selected by the student in consultation with the major field advisor and program coordinator. The committee may recommend that the student continue to Level II, repeat some or all of Level I, or be dismissed from the program.

The thesis topic must be approved by the candidate's advisory committee. Thesis includes a written component, an exhibition, and oral defense. Each of these components must follow departmental guidelines and Graduate School thesis standards.

Level I

9 hours of major studio field I, II, III (or major field I, II; minor field I)

6 hours of art history

3 hours of liberal arts

Level II

9 hours of major studio field IV, V, VI (or major field III, IV; minor field II)

3 hours of art history

3 hours of elective

ARST 7399 Thesis

Art Education (ARED)

The art education concentration requires at least 36 graduate credit hours, including 9 hours of art education; 9 hours of studio art (may be in one or more disciplines); 9 hours of art history; 6 hours of electives (to be approved by advisor); and 3 hours of thesis with oral defense. A foreign language is not required.

The Advancement to Candidacy Exam must be taken when the student has successfully completed between 21 and 27 program hours. All student work in the program is reviewed by a faculty committee of at least three persons selected by the student in consultation with the major advisor and program coordinator.

The topic for the thesis project must be selected before completing 21 hours and must be approved by the thesis advisor and program coordinator before it is submitted to the Graduate School dean. The thesis project must demonstrate the candidate's capacity for high-level independent inquiry and research. In addition, it must conform to the deadlines, requirements, and standards for the Department of Art and the Graduate School. Thesis regulations are available from the program coordinator.

Sample Program

9 hours from the following: ARED 5194, 5294; 5394, 5325, 7331, 7332, 7333, 7334

9 hours in art history

9 hours in art studio

6 hours electives

ARED 7399 Thesis Project

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the program coordinator for information.

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study as outlined above
- Pass the Advancement to Candidacy Exam or Critique
- Successful completion and oral defense of thesis (and mounted exhibition for studio art)

Courses in Art Education

ARED 5194, 5294, 5394 Independent Study in Art Education

Prerequisite: approval of art education advisor, consent of instructor. Research on a subject selected in consultation with the instructor. Variable credit of one to three hours. Offered in fall, spring, and summer.

ARED 5325 Foundations of Art Education

History of art education; emphasis on changing philosophies, theories of learning, subsequent goals and objectives made apparent in curriculum development. Offered in spring.

ARED 7331 Studio Experiences in Art Education

Studio-based art experiences for students of all ages, ability levels; emphasis on individual student's studio strengths; augmented by curriculum in drawing, painting, printmaking, three-dimensional materials. Offered in spring and summer.

ARED 7332 Curriculum Instruction in Art Education

Past, present curriculum, instruction; includes historical component as foundation for understanding current teaching strategies; various teaching approaches are analyzed and formalized into applicable classroom art experiences. Offered in fall and spring.

ARED 7333 Selected Topics in Art Education

Prerequisite: graduate standing, consent of instructor. Topics may include past, present approaches to curriculum development; special populations; aesthetics; art history, criticism; art and technology; art and society; critical analysis; philosophic reflections on art, art education; others. May be repeated for credit when topic changes. Offered in fall, spring and summer.

ARED 7334 Research Trends in Art Education

Past and present art education research; emphasis on understanding the nature of educational research in art, various research methods, how research translates into practical classroom application; includes review, critique, application, development of research topics. Offered in fall.

ARED 7399 Thesis Project

Prerequisite: 27 graduate hours. Prepare and complete final thesis project. Offered in fall and spring.

Courses in Art History

ARHA 5110, 5210, 5310 Special Topics in Art History

Individual artists, particular periods, geographic areas, media, especially those not covered by normal course offerings. Content, subtitle, organization change each time offered. Offered on demand.

ARHA 5300 Studies in the History of Art

Required for art history concentration. Art historical methodology; directed readings, research on topics, selected in consultation with the instructor, to be presented in class. Offered in fall on even years.

ARHA 5302 Art Museum Studies

Policy development, museum administration, staff management, operations funding, budgeting, collection organization, program design. Offered in spring on odd years.

ARHA 5305 Italian Renaissance Art

Painting, architecture, sculpture in Italy from c. 1300 to c. 1600; emphasis on major Florentine, Roman, Venetian artists.

ARHA 5306 Renaissance Art in Northern Europe

Painting, sculpture, architecture, graphic art in Northern Europe (especially Low Countries, France, England) from end of Gothic period through Reformation.

ARHA 5307 18th- and 19th-Century European Art

Painting, architecture, sculpture in 18th-19th-century Europe. Offered in fall on odd years.

ARHA 5308 20th-Century Painting, Sculpture, and Graphic Arts Since 1945

Major artists, movements; emphasis on 1945 to present; importance of new materials, techniques; critic's role. Offered in fall on even years.

ARHA 5309 A History of Arkansas Architecture

Development of architecture in Arkansas from origins through contemporary period.

ARHA 5315 Modern Architecture

Major developments in European and American architecture from 1900 to present; focus on European from 1900 to 1930, United States from 1930 to 1970; includes technological innovations, current design issues (e.g., preservation, adaptive re-use of historic buildings).

ARHA 5384 Baroque Art

Painting, sculpture, architecture in Northern Europe (Netherlands, France, Spain, Italy) from 1600-1725. Offered in spring on odd years.

ARHA 5387 Late 19th-and Early 20th-Century Art

Painting, sculpture, graphic arts, architecture from Post- Impressionist period until World War II. Offered in spring on even years.

ARHA 7197, 7297, 7397 Special Problems in Art History

Prerequisites: graduate standing, consent of instructor. Content, length vary.

ARHA 7303 Seminar in Modern Architecture

Personalities, theories, styles of specific 18th-, 19th-, and 20th-century architects.

ARHA 7315 Seminar in Italian Renaissance and Baroque Art

Directed reading, research on selected topics in Italian Renaissance, Baroque art.

ARHA 7316 Seminar in Northern European Renaissance and Baroque Art

Directed reading, research on selected topics in Northern European art.

ARHA 7327 Seminar in 19th-Century Art

Directed study, seminar presentations on topics in 19th-century painting, sculpture, architecture.

ARHA 7328 Seminar in 20th-Century Art

Selected problems in 20th-century art.

ARHA 7398 Internship in Museum Studies

Prerequisites: 21 graduate hours, consent of coordinator. Concentrated program of practical experience (paid or volunteer), under professional guidance, with a museum, gallery, or other arts organization; requires a journal of internship activities; final written report. Offered on demand.

ARHA 7399 Thesis

Prerequisite: 24 graduate hours. (Required for art history concentration.) May be repeated once for credit. Offered fall and spring.

Courses in Studio Art

ARST 5115, 5215, 5315 Advanced Problems in Design

Experimental materials, techniques in two- or three-dimensional design; includes correlation of visual design elements with those of various multidimensional work not usually covered in normal course offerings. Content, subtitle, organization change each time offered. Offered on demand.

ARST 7197, 7297, 7397 Special Problems

Prerequisites: graduate standing; consent of coordinator, instructor. Content, length vary.

ARST 7311 Graduate Drawing I

Various drawing media, techniques as resource for expression; philosophical, historical roots of contemporary drawing; students encouraged to pursue drawing that incorporates or is tangential to their major area of study. Offered in fall and spring.

ARST 7312 Graduate Drawing II

Prerequisite: Studio Art 7311. Continuation of Studio Art 7311. Offered in fall and spring.

ARST 7313 Graduate Drawing III

Prerequisite: Studio Art 7312. Continuation of Studio Art 7312. Offered in fall and spring.

ARST 7314 Graduate Drawing IV

Prerequisite: Studio Art 7313. Continuation of Studio Art 7313. Offered in fall and spring.

ARST 7315 Graduate Drawing V

Prerequisite: Studio Art 7314. Continuation of Studio Art 7314. Offered in fall and spring.

ARST 7316 Graduate Drawing VI

Prerequisite: Studio Art 7315. Continuation of Studio Art 7315. Offered in fall and spring.

ARST 7321 Graduate Painting I

Contemporary painting concepts, techniques; emphasis may be on oil, acrylic, watercolor, or mixed media. Offered in fall, spring, and summer.

ARST 7322 Graduate Painting II

Prerequisite: Studio Art 7321. Continuation of Studio Art 7321. Offered in fall, spring, and summer.

ARST 7323 Graduate Painting III

Prerequisite: Studio Art 7322. Continuation of Studio Art 7322. Offered in fall, spring, and summer.

ARST 7324 Graduate Painting IV

Prerequisite: Studio Art 7323. Continuation of Studio Art 7323. Offered in fall, spring, and summer.

ARST 7325 Graduate Painting V

Prerequisite: Studio Art 7324. Continuation of Studio Art 7324; emphasis on development of personal direction or style. Offered in fall, spring and summer.

ARST 7326 Graduate Painting VI

Prerequisite: Studio Art 7325. Continuation of Studio Art 7325. Offered in fall, spring and summer.

ARST 7331 Graduate Printmaking I

Production of prints using various print processes, including relief, intaglio, planeographic process; research of printmaking techniques' historical development; museum visits, print workshop participation encouraged. Offered in fall and spring.

ARST 7332 Graduate Printmaking II

Prerequisite: Studio Art 7331. Principles, characteristics of printing element as surface for direct drawing; studio workshop productions generated conceptually or with aid of outside references; basic black-and-white prints, multiple color- separation methods for fine art print (all color-separation positives produced by hand methods). Offered in fall and spring.

ARST 7333 Graduate Printmaking III

Prerequisite: Studio Art 7332. Principles, chemistry of printmaking techniques; includes drawing materials, printing elements, printing papers, solvents, inks, ink modifiers; preservation, print publishing practices. Offered in fall and spring.

ARST 7334 Graduate Printmaking IV

Prerequisite: Studio Art 7333. Technological developments in commercial industry; their application to fine art printing processes; includes technology primarily designed for photocopy, word processing industries, computer-generated designs, color photography and color separation methods. Offered in fall and spring.

ARST 7335 Graduate Printmaking V

Prerequisite: Studio Art 7334. Experience working with other artists; includes printer working with non-printmaker artist, printmaker working with non-artist printer; insight into complex community of atelier environment dependent on collaboration. Offered in fall and spring.

ARST 7336 Graduate Printmaking VI

Prerequisite: Studio Art 7335. Selected special research topics; may include health hazards in printmaking, development of printmaking as a fine art, acceptance and controversy of chroma-lithography in the 19th-century, nontraditional metals used in printmaking processes, other areas of interest to students; student research presented in text with supporting visuals. Offered in fall and spring.

ARST 7341 Graduate Graphic Design I

All aspects of graphic design for the print medium; emphasis on creating professional graphic design works within restricted time periods. Offered in fall and spring.

ARST 7342 Graduate Graphic Design II

Continuation of Studio Art 7341; more complex projects with strict deadlines.

ARST 7349 Practicum in Art Direction

Student works as an assistant director at UALR Graphic Design (campus studio that does work for Arkansas nonprofit organizations); duties include work with undergraduate designers on their roughs, comprehensives, mechanicals; working with studio's clients. Offered in fall and spring.

ARST 7351 Graduate Ceramics I

For advanced graduate students in ceramics. Individual research in consultation with instructor; emphasis on personal expression in form, content of work. Offered in fall and spring.

ARST 7352 Graduate Ceramics II

Prerequisite: Studio Art 7351. Continuation of Studio Art 7351. Offered in fall and spring.

ARST 7353 Graduate Ceramics III

Prerequisite: Studio Art 7352. Continuation of Studio Art 7352. Offered in fall and spring.

ARST 7354 Graduate Ceramics IV

Prerequisite: Studio Art 7353. Continuation of Studio Art 7353. Offered in fall and spring.

ARST 7355 Graduate Ceramics V

Prerequisite: Studio Art 7354. Continuation of Studio Art 7354. Offered in fall and spring.

ARST 7356 Graduate Ceramics VI

Prerequisite: Studio Art 7355. Continuation of Studio Art 7355. Offered in fall and spring.

ARST 7361 Graduate Sculpture I

Serial development of student-generated concept; required number of substantive pieces completed under faculty supervision, advisement. Offered in fall and spring.

ARST 7362 Graduate Sculpture II

Prerequisite: Studio Art 7361. Continuation of Studio Art 7361. Offered in fall and spring.

ARST 7363 Graduate Sculpture III

Prerequisite: Studio Art 7362. Continuation of Studio Art 7362. Offered in fall and spring.

ARST 7364 Graduate Sculpture IV

Prerequisite: Studio Art 7363. Continuation of Studio Art 7363. Offered in fall and spring.

ARST 7365 Graduate Sculpture V

Prerequisite: Studio Art 7364. Continuation of Studio Art 7364. Offered in fall and spring.

ARST 7366 Graduate Sculpture VI

Prerequisite: Studio Art 7365. Development of professional portfolio; includes curriculum vitae, 8"x 10" photographs or color Xerox reproductions, slide plates, exhibitions, pertinent publicity; requires oral presentation of work. Offered in fall and spring.

ARST 7371 Graduate Photography I

First of six consecutive photography courses. Student writes proposal for a body of creative work to be completed in the course series. Up to six hours may be taken concurrently. Offered in fall and spring.

ARST 7372 Graduate Photography II

Prerequisite or corequisite: Studio Art 7371. Continuation of Studio Art 7371. Offered in fall and spring.

ARST 7373 Graduate Photography III

Prerequisite or corequisite: Studio Art 7372. Continuation of Studio Art 7372. Offered in fall and spring.

ARST 7374 Graduate Photography IV

Prerequisite or corequisite: Studio Art 7373. Continuation of Studio Art 7373. Offered in fall and spring.

ARST 7375 Graduate Photography V

Prerequisite or corequisite: Studio Art 7374. Continuation of Studio Art 7374. Offered in fall and spring.

ARST 7376 Graduate Photography VI

Prerequisite or corequisite: Studio Art 7375. Continuation of Studio Art 7375. Offered in fall and spring.

ARST 7391 Graduate Illustration I

All aspects of illustration for print medium; emphasis on creation of professional illustration works within strict deadlines. Offered in fall and spring.

ARST 7392 Graduate Illustration II

Continuation of Studio Art 7391; more complex projects. Offered in fall and spring.

ARST 7395 Graphic Design/Illustration Portfolio

Student prepares, for faculty review, a portfolio of work of a quality to compete in today's graphic design/illustration job market. Offered in fall and spring.

ARST 7399 Thesis

Students will undertake a scholarly investigation of their art studio production as related to art historical, social, and cultural influences. This investigation will culminate in an exhibition, a written thesis and oral defense. May be taken only once for a grade. Offered in fall and spring.

Stabler Hall, Room 601

(501) 569-3235

ualr.edu/history

Master of Arts in Public History

The Master of Arts in Public History provides training in the research methods and practical skills needed for work in archives, museums, historic preservation, and other areas of public history. The program recently added preparation in digital skills to each part of the curriculum. The MA degree has three components: a core segment with internship and thesis, a traditional history segment, and an applied segment. Professionals in the field teach the applied courses. In each segment students combine theoretical knowledge and historical analysis with practical projects.

The program's website, found at ualr.edu/history/index.php/home/programs/master/, provides more detailed information.

Admission Requirements

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale) or 3.0 in the last 60 hours
- At least 15 undergraduate history hours with a grade point average of 3.25 or above in all history classes (or complete specific preparatory classes)
- Graduate Record Examination scores of at least 152 on the verbal section and at least 142 on the quantitative section, or scores of at least 152 on the verbal section and 3.5 on the writing section.
- Two letters of recommendation, preferably from persons familiar with the applicant's academic work or related work experience

Conditional Admission

Students admitted conditionally must complete twelve hours with grades of B or greater before changing to regular status.

Transfer Credit

Up to six hours of equivalent courses in history, an approved applied area, or suitable general electives may be transferred from other accredited institutions, with approval of the program coordinator and Graduate School dean. Credit may not be applied to History 7311, 7315, 7391, 7398, 7399, or 7699. Special students may take program courses with the recommendation of the program coordinator and may later apply the credit to the program if they are admitted.

Program Requirements

The Public History degree requires 36 graduate credit hours, including 18 core hours, 9 traditional history hours, 9 applied hours, and a thesis defense. Core hours include three hours of internship and six hours of thesis with an oral defense. Up to twelve 5000-level hours may be taken. Courses must have grades of B or greater to count toward the degree.

Students pursuing the Master's Degree in Public History at UALR have the three following degree plans from which to choose.

Plan I - Students can focus on archives, museums, historic preservation, or digital public history.

Plan II - Students can focus on historical research to prepare for a doctoral program.

Plan III - Students can focus on education, including teaching or museum education.

The applied segment offers emphases in archives, museum studies, and historic preservation and restoration. At least six of the nine applied hours must be in one of these emphases with the remaining three hours selected in consultation with the program coordinator. Students may, with the coordinator's approval, design an individual plan of study in this segment.

The oral exam covers the thesis. The examining committee, appointed by the Graduate School dean on recommendation of the program coordinator, includes at least the student's thesis advisor, a history faculty member, and a member of the UALR faculty at large.

Curriculum

Core Segment

HIST 7311 Introduction to Public History

HIST 7398 Internship

HIST 7315 Seminar in Historical Methods

HIST 7399 Thesis Seminar

HIST 7391 Seminar in Public History

HIST 7699 Thesis

Museum Studies

History Segment

HIST 7330 History Museum Administration

HIST 5305 Environmental History

HIST 7331 Historical Interpretation in Museums of History

HIST 5312 Medicine, Miracles, and Magic: Early History of Healing in Medieval and Renaissance Europe

Historic Preservation

HIST 5313 Apocalypse Now and Then: A History of Apocalyptic Thought and Movements

HIST 7341 Historic Preservation and Restoration

HIST 5315 Religious History of the United States

HIST 5309 A History of Arkansas Architecture

HIST 5318 Modern Revolutions: From France to China

General

HIST 5396 Seminar in Arkansas History

HIST 5306 History with Objects

HIST 7392 Seminar in Early America

HIST 7352 Historical Parks Planning and Development

HIST 7393 Seminar in 19th-Century America

HIST 7355 Community History

HIST 7394 Seminar in 20th-Century America

HIST 7360 Historical Editing: An Introduction

HIST 7395 Special Problems in History

HIST 7370 Oral History

HIST 7396 Seminar in History

HIST 7372 Digital History

Applied Segment - Archives

HIST 7380 Directed Study in Public History

HIST 7320 Archival Management

HIST 7321 Archival Conservation

Graduate Assistantships

A limited number of graduate assistantships are available to students enrolled for nine hours. Contact the program coordinator for more information.

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above
- Grades of B or greater on all courses
- Pass the thesis defense

Students who do not achieve a 3.0 GPA in the 36 hours may take up to 9 additional hours of approved courses to raise their GPA.

Courses in Public History

HIST 5302 Magic, Science, and the Occult from Antiquity to Newton

A survey of human attempts to explain and control the cosmos from antiquity to the emergence of modern science around 1700, including the contributions of pseudo scientific, occult, and magical world views; internal developments in the history of science; and the relationship between scientific thought and the historical context. Three credit hours.

HIST 5303 The Roman Revolution

This seminar will examine the fall of the Roman Republic and the rise of the Roman Empire. Students in this seminar are expected to acquire a reasonable mastery of major events and developments of this transitional period and to demonstrate at least adequate skill in written analysis of this material.

HIST 5304 Alexander the Great

This undergraduate/graduate seminar will examine the career of one of the most interesting and important figures in world history. Alexander expanded the domain of Greek civilization from the Mediterranean and Aegean Seas to the lands of Afghanistan and India. Three credit hours.

HIST 5305 Environmental History

Humanity's interrelationship with the natural environment through historic times; emphasis on historical factors relating to current environmental problems.

HIST 5306 History with Objects I

The role of objects in U.S. History including how different academic disciplines study artifacts; how to identify, authenticate, and evaluate artifacts (using decorative arts to learn visual literacy); and the impact of objects (especially their manufacturing and marketing) on American life.

HIST 5312 Medicine, Miracles, and Magic: Early History of Healing in Medieval and Renaissance Europe

A holistic examination of various ways in which Europeans sought to cure disease in pre-modern time. Magic, folk cures, and miracles, as well as the work of physicians, apothecaries, and barber surgeons. The emergence of medicine as a profession and a science. How university-trained physicians came to dominate the healing professions. Three credit hours.

HIST 5313 Apocalypse Now and Then: A History of Apocalyptic Thought and Movements

This course offers a history of beliefs about the end of the world in the western Judeo-Christian tradition. Through lectures and readings, we will examine such topics as the birth of apocalyptic thought, the medieval development of various aspects of traditions about the End (such as the figure of Antichrist and millenarian traditions), millennial influences on the discovery and colonization of the New World, millennial influences on the discovery and colonization of the New World, millennial movements of the last two centuries (such as the Millerites and the Mormons), and contemporary apocalyptic scenarios. A major theme of the course will be flexibility of apocalyptic language, its ability to interpret various historical situations, and its power to move people to acceptance or action. Three credit hours.

HIST 5314 A History of the Future: Millennial Visions in Film and Literature

Examines past moments in which people take stock of the present by gazing into the future. Through literature and film, studies predictions of the future in their historical contexts. Looks at positive and negative views of the future, secular and religious predictions for humans' fate. Three credit hours.

HIST 5315 Religious History of the United States

Development of Protestantism including evangelicalism, new denominations, and fundamentalism; incorporation of Catholicism and Judaism into mainstream; relationship between religion and social and political issues including church and state; minority religious beliefs and organizations; varying role of men and women in religious organizations. Three credit hours.

HIST 5318 Modern Revolutions: From France to China

A comparative examination of five modern revolutions: the French Revolution (1789-1815), The Meiji "Restoration" in Japan (1853- 1890), the Mexican Revolution (1910-1920), the Russian Revolution (1917-1932), and the Chinese Revolution (1919-1949). We will consider such issues as the extent of real turnover in the state apparatus, the prevalence of state-driven "revolutions from above" as opposed to classic "revolutions from below" in modern history, the balance of internal and external causation, and the nature of revolutionary violence. Three credit hours.

HIST 5345 Chinese Film and History

This course looks at the traumatic twentieth century through the lenses of Chinese filmmakers, particularly focusing on how a century of revolution affected urban and rural areas, the roles of women, and the daily lives of people in general. Three credit hours.

HIST 5350 The United States and the Middle East

The development of American foreign policy in the Middle East from the Treaty of Versailles to the emergence of Al-Qaeda.

HIST 5363 Law in American History

The development of legal institutions in America from their English origins to the present. The rule of law, legal thought and the legal profession, the independent judiciary, civil rights, and the law's role in economic development. Three credit hours.

HIST 5373 History of Family and Childhood in Modern Europe

The course introduces students to the history of childhood and family life in the nineteenth and twentieth Century Europe.

HIST 5375 Modern Mexican History

A study of the emergence of the modern Mexican state. Historical dimensions of contemporary Mexico are explored through a focus on the 1910 Mexican Revolution and its aftermath. Political party formation, agrarian reform, and labor organizations are investigated along with the role of cultural institutions in institutionalizing change. Graduate students with credit for 4375 may be allowed to take 5375 with consent of the instructor.

HIST 5378 The History of U.S.-Latin American Relations

Survey of U.S. - Latin American relations from the pre-Columbian period to the present with emphasis on the nineteenth and early twentieth centuries. Focus on the diplomatic and economic relationships, including dollar diplomacy, intervention, dictatorship, and revolution. Three credit hours.

HIST 5391 Seminar in United States History.

Prerequisites: History 2311, 2312, three hours of upper-level United States history. Advanced study of a topic in United States history chosen by instructor; includes a major research and writing project incorporating the department's goals of identifying a problem; establishing a thesis; gathering, evaluating, and analyzing evidence; and writing in an appropriate scholarly format. Six credit hours.

HIST 4390/5390 Special Topics in History

Prerequisites: Specialized study of selected topics in history. Course content changes each semester; refer to the semester class directory. Students with credit for HIST 4390 may enroll in HIST 5390 with approval of the instructor. Three credit hours.

HIST 4393/5393 Seminar in World History

Prerequisites: History 1311, 1312, three hours of upper level non-U.S. history. Advanced study of a topic in non-U.S. history chosen by instructor; includes a major research and writing project incorporating the department's goals of identifying a problem; establishing a thesis; gathering, evaluating, and analyzing evidence; and writing in an appropriate scholarly format. Three credit hours.

HIST 5396 Seminar in Arkansas History

Discussion, directed readings, research, writing on selected issues. Topics vary each semester; may be repeated once with new topic.

HIST 5397 Teaching Applications

This course links social studies content with practical applications for classroom instruction and curriculum design. Students study history, geography, political science, anthropology, economics, and psychology contained in the state social studies framework for grades 7 - 12, and learn how to plan and detach social studies lessons, units, and curriculum maps. HIST 5397 is not open for students with credit for HIST 4397.

HIST 7311 Introduction to Public History

History, philosophy, purposes of historical agencies; archives; museum organization, operation; cultural resource management; relationship of historians and business community; historians as consultants; professional ethics.

HIST 7315 Seminar in Historical Methods

Basic skills, techniques for historical research; models for use, interpretation of evidence; problem of historical causation; bibliography, techniques for defining, focusing research projects; steps in research planning, design, presentation.

HIST 7320 Archival Management

Techniques of managing contemporary archives; includes methods of document preservation, organization of manuscripts and archival records, administrative systems, philosophy of archival control; experience with actual collections.

HIST 7321 Archival Conservation

Restoration of historical books, documents; includes conservation fundamentals, paper repair methods, book restoration, basic bookbinding techniques; experience with actual collections.

HIST 7330 History Museum Administration

Theoretical, practical aspects; includes purpose of museums, their intellectual and ethical responsibilities, organizational problems inherent in pursuit of these aims.

HIST 7331 History Museum Interpretation

History, functions of historical museums; focus on role as research and educational institutions; includes possibilities, problems of interpreting history for the general public; joint research on a specific problem with local museum staff.

HIST 7341 Historic Preservation and Restoration

Definition, rationale, methods, techniques of preservation; problems of restoration, preservation of historic spaces, buildings; national, state preservation law, agencies; case studies; site surveys; field trips to preservation projects.

HIST 7352 Historical Parks Planning and Development

Discussions, directed readings, research, writing on issues related to planning, development of historic parks; includes identifying and protecting historical resources, land use, staffing requirements, long- and short-term planning, governmental policy, funding, other topics.

HIST 7355 Community History

This course introduces students to the research practices, challenges, and community engagement opportunities associated with local history. Major themes include research in archival and online collections; working with community entities such as schools, non-profit agencies, local government, libraries, museums, and historical societies; and avenues for disseminating research to community audiences. The class is designed to incorporate technology through content delivery, examination of primary source documents, and in student work and presentations.

HIST 7360 Historical Editing: An Introduction

History of historical journal, documents editing, publishing historical materials.

HIST 7370 Oral History

Innovative approach to teaching and learning of history; emphasis on creation, processing, curating, use of oral history materials.

HIST 7372 Digital History

In this class, we will explore the emerging field of digital history by both reading scholarly works and building a website. Our readings will examine digital production, information architecture, oral histories, and audio documentaries. Our website will include a digital file of an interview, scanned historical sources, and an exhibit. At the end of the class, students will know the theoretical background of digital history and will know how to plan, collect, and digitally publish a public history website.

HIST 7380 Directed Study in Public History

Prerequisites: consent of coordinator and, if applicable, supervisory agency. Student chooses to do either a practicum with a local agency or assigned readings and research on issues involving public history. Topics vary each semester.

HIST 7391 Seminar in Public History

Prerequisites: History 5303, 7311, 7315. (Open only to students in the program.) Directed readings, research on specialized topics in public history; concentrates on skills basic to all public history specialization areas, team-research experience.

HIST 7392 Seminar in Early America

Discussion, directed readings, research, writing on selected issues. Topics vary each semester; may be repeated once with new topic.

HIST 7393 Seminar in 19th-Century America

Discussions, directed readings, research, writing on selected issues. Topics vary each semester; may be repeated once with new topic.

HIST 7394 Seminar in 20th-Century America

Discussions, directed readings, research, writing on selected issues. Topics vary each semester; may be repeated once with new topic.

HIST 7395 Special Problems in History

Major individual research project or directed readings in consultation with and under supervision of a faculty member. Topics vary each semester; may be repeated once with new topic.

HIST 7396 Seminar in History

Discussion, directed readings, research, writing on selected issues in American, non-American history. Topics vary each semester; may be repeated once with new topic.

HIST 7398 Internship

Prerequisites: 24 program hours; consent of coordinator. Employment, practical experience in community agency, under professional guidance, in concentration area; requires written report.

HIST 7399 Thesis Seminar

In this class you will plan, design, research and write your thesis for the MA program in Public History. We will use Turabian's "Manual for Writers" and the History Department's "MA Thesis Guidelines" as a map to work through the different stages of a master's thesis. Students should repeat this class in two consecutive semesters.

HIST 7699 Thesis

Prerequisite: consent of coordinator. Scholarly investigation involving original research.

Courses in Geography**GEOG 5300 Special Topics**

Prerequisites: nine geography hours (or nine hours in an associated discipline that complements the topic), consent of instructor. Topics of contemporary interest and demand; focused to permit in-depth understanding of issue.

GEOG 5321 Geomorphology

Prerequisite: consent of the instructor. See ERSC 5321.

GEOG 5332 Population Geography

Global, national, and sub-national population process, issues, and policies. Emphasis on basic demographic components of fertility, mortality, and migration; on population structures; factors that influence the demographic components and the population structures over time.

Stabler Hall, Room 501P
(501) 683-5728
ualr.edu/mais

Master of Arts in Interdisciplinary Studies

The Master of Arts in Interdisciplinary Studies (MAIS) is an interdisciplinary approach to university studies. The program combines the development of critical thinking, writing, and research abilities with the study of specialized knowledge in two complementary disciplines. Students pursuing the MAIS degree choose program emphases and design unique curricula in consultation with the MAIS graduate program coordinator.

The MAIS degree is designed for persons who wish to continue their liberal education at the graduate level or add breadth to a more specialized undergraduate degree. The communication skills, critical thinking skills, and interdisciplinary methodology gained in the program are not only valuable in themselves but attractive to a wide range of employers as well. For more information, visit the program's website at ualr.edu/mais.

Admission Requirements

- Baccalaureate degree from an accredited institution with a 3.0 GPA (4.0 scale) for all undergraduate work. Candidates with a lower GPA may be considered for conditional admission.
 - Written statement of 500 to 1,000 words describing the applicant's academic and/or professional background and preparation as well as specific interests for disciplines of study and interdisciplinary goals within the MAIS program.
 - Two recommendation letters addressing the candidate's background and potential for success in graduate study (letters may come from various sources: academic references are preferred. If candidate has no academic references, contact graduate coordinator to discuss other options). In addition to the letters, applicants will provide contact information for three references (names, addresses, phone numbers, email if applicable, and relationship to applicant). Two of these should be the reference letter writers. The reference contacts should also be academic or professional.
 - Submission of a writing sample, to follow either A or B below:
 - A: Applicant will submit an academic paper that was written in the last 5 years, between 5 and 10 double-spaced pages in length (if the paper is longer than 10 pages, applicant may send an excerpted version with brief explanation of overall project);
 - B: Applicants who do not have an academic paper written in the last 5 years will submit an essay of 1500-1800 words, responding to either question 1 or 2 below (applicant's choice):
 1. If you could have written one scholarly work or produced one artistic work that is well known in your primary discipline of interest, what would it be? Describe the work and explain why.
 2. Which course in your academic career to date has been the most important for your intellectual or artistic/creative development? Explain why.
 - Possible interview with the program coordinator or admissions committee.
- No more than six credit hours of appropriate graduate course work taken at another institution may be transferred into the program. The MAIS graduate coordinator will determine whether or not graduate courses taken at UALR prior to admission to the program will count toward the 36 hours required.

Program Requirements

The MAIS degree requires 36 credit hours of graduate course work, 40% (15 hours) of which can be at the 5000 level. The requirements are as follows.

Core Courses

IDST 7310 Introduction to Interdisciplinary Studies: 3 hours

IDST 7390 Interdisciplinary Studies Colloquium: 3 hours

Courses in one ALS or SSC discipline: 15 hours

Courses in one or two other disciplines: 9 hours

IDST 8310 and IDST 8320 Thesis/Final Project: 6 consecutive hours

Courses for the primary area in MAIS come from a discipline within the College of Arts, Letters, and Sciences (ALS) or the College of Social Sciences and Communication (SSC), and will include research methodology and practice in the discipline. Please see the MAIS program website for details about which disciplines are available. Note that individual departments enforce pre-requisite requirements for course work and may have other restrictions.

Students are encouraged to check with the department(s) in which they are interested for details on graduate-level course offerings. The nine hours of the secondary area are to be chosen from graduate course offerings in one (or two) other complementary disciplines. Any of the ALS or SSC departments listed above can provide the secondary nine-hour segment. These nine hours may, with permission of the program coordinator, be outside ALS and SSC.

Program Options

The MAIS degree allows the student to design a curriculum that includes a variety of graduate level courses. The combination of a primary discipline with one or two adjunct areas allows for greater breadth and the ability to focus on a particular problem or a subject that does not fit within traditional academic disciplines. Interested students should contact the MAIS coordinator to discuss the many options within the program.

Graduate Assistantships

A limited number of graduate assistantships are available. Refer to the Graduate School website for general information about Graduate Assistantships and the MAIS website for further details.

Graduation Requirements

The MAIS degree requires successful completion of an approved program of study (as outlined in "Program Requirements") and a final project or thesis, including a formal oral defense.

Courses in Interdisciplinary Studies

IDST 7310 Introduction to Interdisciplinary Studies

This course will help students refine their abilities to read and think critically, to understand and make effective arguments, to study and practice research techniques, and to communicate effectively in writing. Students will study interdisciplinary processes and formulate an interdisciplinary research project. A sampling of texts from various disciplines will be considered from an interdisciplinary perspective. The course is only offered in the fall.

IDST 7390 Interdisciplinary Studies Colloquium

Prerequisite: IDST 7310. The colloquium has a general course topic and focuses on interdisciplinary reading, writing, and research. The course helps students to sharpen their abilities to communicate effectively across disciplines by sharing data, research methods, and writing techniques. Students will participate in active dialogue in the classroom by presenting and interdisciplinary research project on the selected class topic. MAIS students should enroll after completing IDST 7310 and 9 hours of graduate credit. Students outside the program may enroll only with consent of instructor. This course will be offered each spring.

IDST 7396 Special Topics in Interdisciplinary Studies

Discussion, directed readings, research, writing on selected issues in interdisciplinary studies. Topics vary each semester. May be repeated once with new topic.

IDST 8310, 8320 Interdisciplinary Studies Thesis/Final Project

Students will complete six hours of consecutive thesis/final project course work as agreed upon by the student, the program coordinator, and the student's thesis/final project committee.

Stabler Hall, Room 301

(501) 569-3272

ualr.edu/languagestudies

Master of Arts

The Master of Arts in Second Languages (MASL) is a 33 semester hour program designed to provide academic preparation for individuals interested in English as a second language (ESL) and foreign languages in various settings across the state, the nation, and in international venues. This program offers students the opportunity to acquire advanced language foundations in order to work with limited English proficient (LEP) speakers, and French, German, Spanish, and less commonly taught language students from pre-K to 16+ grade levels.

The MASL degree also provides well-qualified professionals to meet the need for second language professionals in the public schools. The degree, however, does not provide teacher licensure. The Arkansas Department of Higher Education has listed foreign languages as one of the critical shortage areas in the past several years. Additionally, foreign language graduates may pursue employment in two-year colleges across the country. Please visit the program's website for more information, ualr.edu/languagestudies/programs/masl.

Admission Requirements

- Bachelor's degree from a regionally accredited institution of higher education
- Three letters of reference for academic and/or professional experience
- Personal interview with MASL faculty members
- Overall undergraduate GPA of 2.75 with a 3.0 on the last 60 hours
- A combined score of 300, with scores of at least 160 on the verbal and 140 on the quantitative sections of the GRE or a score of 413 on the MAT

Transfer Credit

Up to 12 graduate credit hours may be accepted in transfer with approval of the department chair.

Second Language Acquisition and Pedagogy (SLAP) Track

This track focuses on the teaching and acquisition of a foreign language (English, French, German, Spanish, and less commonly taught languages). If a candidate chooses English as a second language (ESL), he/she must have completed ENGL 3312 Grammatical Analysis of Modern English or the equivalent. ESL students are required to complete ENGL 5970 Seminar in Linguistics. If a student chooses a language other than English, he/she must have at least 24 undergraduate hours in the target language (French, German, Spanish, or a less commonly taught language) prior to entering the program. Part of the core may be fulfilled by the student's previous course work.

Graduation Requirements

- Successful completion and oral defense of the final thesis
- Comprehensive examination
- Cumulative GPA of no less than 3.0 on the approved course of study

Courses in Second Languages

LANG 5322 Teaching Second Languages

Prerequisite: baccalaureate degree. Methods and materials used to teach skill development in modern second languages; techniques considered most effective and appropriate assessment strategies. Required for foreign language teacher licensure and the ESL endorsement in the state of Arkansas.

LANG 5323 Second Language Acquisition

Prerequisite: baccalaureate degree. How second language is acquired by children and adults. A course for those preparing to teach students with limited English proficiency. Required for ESL endorsement in the state of Arkansas.

LANG 5324 Teaching People of Other Cultures

Prerequisite: baccalaureate degree. Cultural issues for teaching students with limited English proficiency. A required course for ESL endorsement in the state of Arkansas.

LANG 5325 Second Language Assessment

Prerequisite: baccalaureate degree. Examines goals, principles, instruments, and techniques of assessment and testing of second language learners, K-12 and adult. A required course for ESL endorsement in the state of Arkansas.

LANG 7100, 7200, 7300 Workshop

Interaction between students and professor on topic relevant to teaching in the discipline.

LANG 7311 Teaching Listening and Speaking

Theory and techniques of teaching the skills of listening and speaking; skill-building strategies appropriate for novice through advanced language learners; assessment mechanisms designed for appropriate performance at each level.

LANG 7312 Teaching Reading and Writing

Theory and techniques of teaching the skills of reading and writing; skill-building strategies appropriate for novice through advanced language learners; assessment mechanisms designed for appropriate performance at each level.

LANG 7314 Second Language Practicum

Prerequisite: LANG 5322. Practical application of the principles of second language teaching in public elementary and secondary schools, Intensive English Language Program, and adult ESL learning environments.

LANG 7350 Research in Second Language Education

Understanding and critiquing research in second language education; includes a student-generated research project on a current topic in second language education.

LANG 7699 Thesis

Prerequisites: Completion of basic core, LANG 5322, 5323, 5324, 5325, 7311, 7312, and 7350, and the consent of the Graduate Program Coordinator. Students will develop a thesis proposal, thesis description, survey of the relevant literature, time-table for completion, and names of committee members and submit this proposal to the Graduate Program Coordinator for approval.

Courses in International Studies

INTS 5301 Independent Study in International Studies

An advanced exploration of an issue/topic in international studies, resulting in a major research project or a series of smaller research projects. The topic is chosen in consultation with the course instructor, and a second faculty reader is required. Can be repeated for credit.

INTS 7301 Advanced Independent Study in International Studies

An advanced exploration of an issue/topic in international studies, resulting in a major research project or a series of smaller research projects. The topic is chosen in consultation with the course instructor, and a second faculty reader is required. Can be repeated for credit.

FA 210

(501) 683-7125

The Applied Science (ASCI) graduate programs are housed in the College of Arts, Letters, and Sciences (CALs). The programs offer applied research in a broad set of emphasis areas, including applied chemistry, applied biosciences, applied physics, materials, nanotechnology, computational science, applied mathematics, and environmental science.

The Applied Science department offers two degrees, the Doctor of Philosophy and the Master of Science. Each degree has multiple emphases. Faculty housed in other departments in both the College of Arts, Letters, and Sciences (CALs) and the Donaghey College of Engineering and Information Technology (EIT) participate in the emphasis tracks. For more information and access to the online application process, visit the Department of Applied Science website at ualr.edu/appliedscience.

Master of Science in Applied Science

The Master of Science degree is an interdisciplinary program designed to advance a student's knowledge beyond the baccalaureate degree and to teach the student how to approach a research project. This student may either pursue a generic degree in applied science, or with sufficient specialized course work, may earn a master's degree in applied physics.

The degree is designed for students with a wide variety of research and/or curricular interests in science and engineering. The thesis option includes a proposal defense and a thesis defense, and provides an opportunity to the student to carry out thesis based research. The non-thesis option includes a comprehensive exam and a project. The student choosing the non-thesis option will have three different alternatives to satisfy the comprehensive exam and project requirement. These alternatives are intended to cater to students who (1) are in the Applied science (ASCI) Ph.D. program and want to acquire the ASCI M.S. degree since they satisfy a majority of the cognate requirements, (2) want to complete some of the requirements of the ASCI Ph.D. as a precursor to applying for admission to the Ph.D. program, (3) want to complete a predominately course based Master's degree. The details of the programs are given below.

Admissions Requirements

- Applicants must possess a baccalaureate degree in an appropriate scientific discipline, such as chemistry, physics, biology, material science, mathematics, statistics, or earth science.
- They must have an overall undergraduate GPA of 3.0.
- Applicants must have a minimum quantitative score 151 and verbal score of at least 138 on the GRE, (or combined 1,000 in the older GRE scoring system with a minimum score of 650 on the quantitative portion) and a minimum score on the writing assessment of a 4.0.
- Applicants must possess the requisites for their intended area of study.
- With the approval of the Graduate Coordinator, applicants with a 3.5 GPA or greater on their last 60 hours of graduate and undergraduate credit hours may not be required to take the GRE.

Conditional Admission

In certain cases, students not meeting these requirements may be admitted on a conditional basis. The conditional student must maintain a minimum GPA of 3.0 in at least nine CALs or EIT graduate credits in the first year of study to be fully admitted.

Recommendations on a graduate application for admission to Applied Science's Master of Science program are made by the Applied Science graduate coordinator with input provided by the relevant Applied Science doctoral faculty. Satisfying minimum requirements for admission by itself does not guarantee admission. Other factors that could be involved include but are not limited to the availability of funding and appropriate faculty mentors.

International Students

International students whose native language is not English and who do not have a degree from a regionally accredited U.S. institution of higher education must also submit a score of at least 79 on internet-based Test of English as a Foreign Language (TOEFL) exam, or 550 on the paper-based or 213 on the computer-based version. In order to qualify for a teaching assistantship, students whose native language is not English must score a 5.0 on the Test of Spoken English (TSE).

Program Requirements

Course Work

The Master of Science degree requires a minimum of 30 credit hours beyond the baccalaureate degree. The student's plan of study must be developed in conjunction with the Thesis Advisor/Project Instructor and the Student Advisory Committee.

If a student receives one C in his/her course work, he/she will be warned that his/her academic performance is unacceptable and that his/her status will be reviewed by the relevant Applied Science doctoral faculty, which will suggest corrective action. A student receiving two Cs or either a D or an F in his/her course work will be dismissed from the program, pending review by the Applied Science faculty.

Emphasis in Applied Physics

To earn an emphasis in applied physics, students must take at least nine credit hours from recognized physics courses recognized by the Applied Science Department.

Transfer of Credit

A maximum of six credit hours may be transferred from an accredited graduate program. The graduate coordinator will determine applicability of the transfer.

Student Advisory Committee

The Student Advisory Committee will be composed of four members, including the committee chair, who will be the Thesis Advisor/Project Instructor. The chair and two of the three members must be faculty members from CALS. The at-large member can be any other UALR graduate faculty or Applied science adjunct faculty. The Applied science faculty must approve the committee constituency.

Thesis Option

The thesis subject is selected by the student and the Student Advisory Committee at least one year prior to the oral defense. The written thesis format must follow the UALR Graduate School Dissertation and Thesis Guidelines found on the Graduate School website.

Thesis Proposal

At least one year prior to the thesis defense, the candidate must present a proposal for his/her thesis work to the advisory committee.

Thesis Defense

Students will present and orally defend their completed master's research before their advisory committees. The defenses will be open to the public and must be announced at least two weeks in advance.

Non-Thesis Option

Comprehensive Exams

After the candidate has completed eighteen credit hours of graded course work, the candidate may attempt the Comprehensive Exams. The comprehensive exam requirement may be passed in no more than two attempts.

The second attempt has to be in the semester immediately following the semester in which the first attempt was made. The student may opt for either of the two options listed below to satisfy the comprehensive exam requirement, but must get prior written approval from their student advisory committee for their choice. These options are:

- The student may take an oral exam administered by his/her student advisory committee
- or
- The student may take the Doctoral Candidacy Exams. If a student chooses this option, he/she must pass the exams in the three candidacy subjects within the same emphasis area. The student may test only in those candidacy subjects, which he/she has taken as part of the eighteen credit hours of graded course work mentioned above. The Doctoral Candidacy Exam rules will be invoked to determine whether the student has passed or failed.

Project Presentation and Report

The student must complete a project, by means of six credits of Independent Study (ASCI 7X89) with the Project Instructor as the instructor of record. Prior to undertaking the Independent Study courses, the student must present a project plan to the Student Advisory Committee. Upon completion of the Independent Study courses, the student must orally present his/her work to the Student Advisory Committee, and deliver a written project report, in the format specified by the Project Instructor, to the Student Advisory Committee for approval, for which at least two-thirds of the committee members will have to vote in favor of that outcome.

Successful defense of the doctoral proposal and acceptance of a peer-reviewed written document on some completed portion of a project, such as a conference paper or a journal article, with the student as the primary or corresponding author, may serve in lieu of the project presentation and report, with prior written approval from the student advisory committee.

Credit Requirements

The Master of Science degree requires a minimum of 30 credit hours beyond the baccalaureate degree.

Course Credits

A minimum of 18 credit hours in 5000 or 7000 level graded courses within CALS or EIT must be taken. A grade of B or greater must be obtained in each course to count towards the minimum course requirement. A maximum of six credit hours of independent study (ASCI 7X89) or special topics (5399, 7399) may be applied to the Master of Science with the following exceptions. Those students who are required to use six hours of independent study (ASCI 7X89) to complete a project under the non-thesis option may apply three additional credits of independent study (ASCI 7389) or special topics (5399, 7399) to the Master of Science.

Thesis/Dissertation or Project Credits

Either a minimum of twelve credit hours of master's thesis (ASCI 8X00) or a minimum of twelve credits of research/dissertation (ASCI 9X00) or a minimum of six credits of independent study (ASCI 7X89) are required.

Graduation Requirements

- Successful completion of an approved program of study with a minimum GPA of 3.0
- Successful completion of the writing requirements

Thesis Option

- Successful completion of thesis proposal
- Successful completion of thesis defense
- Submission of an acceptable thesis to Graduate School

Non-Thesis Option

- Successful completion of Comprehensive Exam
- Successful completion of Project Presentation and Report

Requirement	M.S. Thesis Option	M.S. Non-Thesis Option Alternative 1	M.S. Non-Thesis Option Alternative 2	M.S. Non-Thesis Option Alternative 3
Minimum Graded Course Credits	18 credits A maximum of six independent study (ASCI 7X89) and/or special topics course (5399, 7399) may be applied towards the M.S. requirement.	18 credits-A maximum of six independent study (ASCI 7X89) and/or special topics (5399, 7399) may be applied towards the M.S. requirement.	18 credits-A maximum of three independent study (ASCI 7X89) or special topics (5399, 7399) in addition to the six credits of independent study (ASCI 7X89) credits required for project (see second row and last row) may be applied towards the M.S. requirement.	18 credits-A maximum of three independent study (ASCI 7X89) or special topics credits (5399, 7399) in addition to the six credits of independent study (ASCI 7X89) credits required for project (see second row and last row) may be applied towards the M.S. requirement.
Thesis/Dissertation or Project Credits	12 master's credits (ASCI 8X00)	12 Doctoral credits (9X00)	Six credits of independent study (ASCI 7X89) for project (see below)	Six credits of independent study (ASCI 7X89) for project (see below)
Thesis Proposal and Defense	Required	Not applicable	Not applicable	Not applicable
Comprehensive Exam	Not applicable	Must pass three candidacy subjects in doctoral candidacy exam	Must pass three candidacy subjects in doctoral candidacy exam	Oral exam administered by student's advisory committee
Project Presentation and Report	Not applicable	Successful defense of the doctoral proposal. Published conference paper or journal; student as primary or corresponding author	Complete project by means of six credits of independent study (ASCI 7X89), make project presentation and submit report.	Complete project by means of six credits of independent study (ASCI 7X89), make project presentation and submit report.

Doctor of Philosophy in Applied Science

Faculty participating in the doctoral program are drawn mainly from the Departments of Biology, Chemistry, Earth Science, Mathematics and Statistics, and Physics and Astronomy.

The Doctor of Philosophy in Applied Science is awarded upon completion of a program of advanced study including a significant original dissertation in applied research or design. Work accomplished without the supervision of an Applied Science doctoral faculty member will not be accepted in lieu of the dissertation requirements. The research must be relevant to the emphasis area in which the student is pursuing a degree.

All emphases have similar program requirements. Each emphasis has its own candidacy exams, seminar requirement, and specific course requirements, which are described under the Program Requirements for the Doctor of Philosophy.

The following emphasis areas are offered:

Applied Biosciences

The applied biosciences emphasis is a research-oriented academic course of study that encompasses the broad fields of biotechnology and applied biological sciences. Research areas include molecular and cellular biology, phylogeny, evolutionary ecology, genomics, and bioinformatics. ASCI 7192 Biosciences and Bioinformatics Seminar is required each semester the student is enrolled.

Applied Chemistry

The Ph.D. emphasis in applied chemistry provides advanced preparation for careers in government, industrial, and academic research. The curriculum is a blend of traditional and non-traditional, innovative courses that reflect the needs of modern chemistry. The UALR Department of Chemistry has research-quality instrumentation and computer facilities, gives individual attention to each student, and offers high-quality instruction.

Applied Physics

The applied physics doctoral emphasis is designed to prepare students in cutting-edge research areas in Applied Physics, Materials, Earth Sciences, Astronomy, and Astrophysics that include advanced materials, nanotechnology, photovoltaic devices, applied geophysics, seismology, dark matter and galaxies.

Computational Science

The computational science emphasis applies to mathematical modeling, simulation and visualization, and high performance computing to specific scientific disciplines. Admission to the Computational Science emphasis areas require knowledge of discrete mathematics, differential and integrated calculus for single and multi-variable functions, linear algebra, differential equations, mathematical statistics, and knowledge of programming through data structures.

Graduate Assistantships

Graduate assistantships that support teaching and research opportunities are available to qualified full time students. Tuition is paid for 9 credits, and a stipend is provided for living expenses. Students must pay registration fees, buy textbooks, and purchase any necessary support materials. For more information about graduate assistantships, the online application process, and other financial assistance opportunities, visit the Applied Science website at ualr.edu/appliedscience/. A student supported by a graduate assistantship shall be registered as a full-time student.

Admission Requirements

Applicants must possess a baccalaureate degree in an appropriate scientific discipline such as chemistry, physics, materials science, biology, mathematics, statistics, or earth science. They must have a minimum overall GPA of 3.0 in the graduate and undergraduate credit hours. Applicants must have a minimum quantitative score of 155 and verbal score of at least 138 on the GRE (or combined 1,000 in the older GRE scoring system with a minimum score of 700 on the quantitative portion) and a minimum score on the writing assessment of 4.5. Applicants must possess the prerequisites for their intended areas of study. With the approval of the Graduate Coordinator, applicants with a 3.5 GPA or greater on their last 60 of graduate and undergraduate credit hours, may not be required to take the GRE.

Recommendations on a doctoral application for admission to the Applied Science program are made with the collective input of the Applied Science Doctoral faculty. Satisfying minimum requirements for admission by itself does not guarantee admission. Factors that could be involved include, but are not limited to, availability of faculty mentors and financial support in cases where such support is sought by an applicant.

In certain cases, students not meeting these requirements may be admitted on a conditional basis. The conditional student must maintain a minimum GPA of 3.0 in at least 9 CALS or EIT graduate credits in the first year of study to be fully admitted.

International Students

International students whose native language is not English and who do not have a degree from a regionally accredited U.S. institution of higher education must also submit a score of at least 79 on internet based Test of English as a Foreign Language (TOEFL) exam or 550 on the paper based or 213 on the computer-based versions. In order to qualify for a teaching assistantship, students whose native language is not English must score a 5.0 on the Test of Spoken English (TSE).

Program Requirements

Writing Requirement

An English Writing Proficiency Exam (WPE) will be offered each Spring term by the Applied Science program. This exam will assess the student's ability to communicate in a written format. Each student must pass this exam to fulfill graduation requirements. A student who does not pass the WPE is required to take English Writing Proficiency Laboratory (EWPL). The EWPL is offered each Spring term. The student must take the EWPL each Spring term until they pass.

Seminar and Research Ethic Course Requirement

All Ph.D. students are required to register for the Applied Sciences Seminar (ASCI 7190) each semester of residency. Students in the Applied Biosciences emphasis area may choose to register for Applied Bioscience Seminar (ASCI 7192) instead of ASCI 7190.

All Applied Science doctoral students are required to register for and successfully complete the Research Ethics course (ASCI 7118), for any one semester prior to graduating from the program. A student registered for Research Ethics course can be exempt to register for Applied Science Seminar or Applied Bioscience Seminar for that semester upon the approval of Graduate Coordinator.

A maximum of 1-credit of seminar (or Research Ethics) hour per semester can be counted towards the credit requirements of Applied Science PhD.

Laboratory Rotations

All Applied Science doctoral students must register for Introduction to Research in Applied Science (ASCI 7x45), or so called "Laboratory Rotation" in their first semester in the program, and receive a "satisfactory" grade at the end of the rotation. Rotations can be performed with any Applied Science Doctoral Faculty member. Students can receive from one to three credit hours for their rotations by registering for ASCI 7145, 7245, or 7345. At the end of the rotation, the student and the rotation host should meet and discuss progress of the rotation. The student should present the results, either orally or in the form of a written report, to the rotation host.

Students also need to submit a written report to the coordinator of laboratory rotation. If the student has not selected his/her dissertation advisor after the first semester of rotations, the student will be required to register again for ASCI 7x45. Failure to perform adequately in the laboratory rotation may result in termination of state assistantship funding.

A maximum of 2-credits of Laboratory Rotation can be counted towards the credit requirements of Applied Science PhD.

Doctor of Philosophy Graded Program Requirements

All emphases require a minimum of 72 credit hours beyond the baccalaureate degree. Specific requirements depend on the emphasis area chosen and are detailed in those sections. The student's plan of study must be developed in conjunction with his/her doctoral advisor and advisory committee.

- A minimum of eighteen (18) credit hours of course-work is required from 5000 and 7000 level courses in CALS and EIT. The Introduction to Research course, ASCI 7145, ASCI 7245, or ASCI 7345, must be taken, and a grade of "credit" must be obtained.

- A minimum of 42 credit hours in the 9000-level doctoral research/dissertation is required. The research must be substantial and must extend the state of the art in the student’s chosen field through theoretical development, design or process improvement, or experimental technique.

If a student receives one C in his/her course work, he/she will be warned that his/her academic performance is unacceptable and that his/her status will be reviewed by the Applied Science Doctoral Affairs Committee (ASDAC), which will suggest corrective action. A student receiving two Cs or either a D or an F in his/her course work will be dismissed from the program, pending review by ASDAC.

Transfer of Credit

A maximum of six credit hours may be transferred from an accredited graduate program. Transferability of credit is determined by the student’s advisory committee based upon the applicability of the course to dissertation work and the student’s educational goals.

Candidacy Exam

The purpose of the candidacy examination is to determine whether the applicant possesses the attributes of a doctoral candidate. The candidacy exam will be held twice a year after the start of Fall and Spring classes. The candidacy exam is a comprehensive, written test composed of four subject tests, each of which must be passed. The student will be tested on topics selected from the candidacy subject list in his/her emphasis area. The student may attempt the candidacy exam a maximum of two times and must attempt it in consecutive semesters. A student who has not passed all exams after the second offering will be dismissed from the program.

Students must attempt the exam no sooner than the beginning of the second semester in the program. A student must take the exam at the next opportunity after completion of the core in his/her area and, in any event, no later than the beginning of his/her fifth semester in the program. A minimum GPA of 3.0 in graduate course work is required to take the examination.

Candidacy Subjects

<p>Applied Biosciences</p> <ul style="list-style-type: none"> Organism Functions Cellular Function Genetics Biochemistry and Molecular Biology Biological Modeling and Analysis Ecological Interaction Discipline Specific Applications 	<p>Applied Physics</p> <ul style="list-style-type: none"> Mechanics Electricity and Magnetism Quantum Mechanics Statistical Thermodynamics Elastic Wave Theory Potential Theory Material Physics Astrophysics Discipline Specific Applications
<p>Applied Chemistry</p> <ul style="list-style-type: none"> Analytical Chemistry Inorganic Chemistry Organic Chemistry Physical Chemistry Discipline Specific Applications 	<p>Computational Science</p> <ul style="list-style-type: none"> High Performance Computing Applied Mathematics Modeling and Visualization Discipline Specific Applications

Doctoral Advisor

A student’s dissertation advisor must be a doctoral faculty member (approved by ASDAC) participating in the Applied Science graduate program. Those students who do not have a doctoral advisor by the end of the third semester may be dismissed. Changing doctoral advisors after this point is possible, and sometimes advisable, but it usually slows a student’s completion of degree requirements. Therefore, this decision should be approached carefully.

Doctoral Advisory Committee

The student's doctoral advisory committee will be composed of five members, including the student's doctoral advisor who will serve as the committee chair. Four of the five members including the chair must be Applied Science doctoral faculty members. The at-large member(s) may be any other person who has graduate faculty status at UALR. This also includes full-time research faculty with graduate faculty status. However, postdoctoral researchers can only serve as one of the external members of a dissertation committee. The ASDAC must approve the committee constituency. When a student proposes his/her dissertation committee to ASDAC, he/she also needs to provide a brief written justification explaining the role of each member in contribution to the student's dissertation research. Students are encouraged to form their advisory committee with a majority of faculty members from student's respective emphasis area. Dissertation committees cannot be changed after the proposal defense unless the student has a compelling or extraordinary reason (e.g. leave or retirement of a committee member).

The dissertation subject is selected by the student and the advisory committee at least two years prior to the oral defense of the research. It must be a scholarly contribution to a major field of applied science in the student's emphasis area. The written dissertation format must follow the UALR Graduate School Dissertation and Thesis Guide found on the Graduate School website.

Dissertation Proposal

At least two years prior to the dissertation defense, candidate must present a written proposal in either a National Institutes of Health (NIH) or National Science Foundation (NSF) grant proposal format for his/her dissertation work to the advisory committee. The written proposal should be given to the advisory committee at least two weeks in advance of meeting with the committee.

Dissertation Defense

Students will orally defend their dissertation research before their advisory committee. Dissertation should be given to the advisory committee at least two weeks in advance of meeting with the committee. The defense will be open to the public and must be announced at least two weeks in advance.

Summary of Graduation Requirements

- Successful completion of minimum credit requirements
- Successful completion of an approved program of study with a minimum GPA of 3.0
- Successful completion of candidacy examinations
- Successful completion of proposal and oral defense
- Successful completion of dissertation and oral defense
- Successful completion of the writing, research ethics course, laboratory rotation, and seminar requirements

Courses Used in Applied Science Emphases

A list of courses in applied science (ASCI) with descriptions is provided on the following pages. Additional courses offered within the participating departments can be found under the "Master of Science in Biology," the "Master of Science and Master of Arts in Chemistry," the "Master of Science in Computer Science," the "Master of Science in Information Quality," and the "Non-program Courses" sections of this Catalog.

Students admitted to the UALR Graduate School but not the applied science program must have the instructor's consent to take any applied science (ASCI) course.

Courses in Applied Science

ASCI 5310 Introduction to Signal Processing

Prerequisite: MATH 3322 or equivalent. Introduction to the fundamental concepts in signal processing. Use of the fundamental transform techniques (Laplace transform, discrete Fourier transform, z-transform). Discrete time representation of signals, linear time invariant systems. Correlation, coherence, and time delays. Standard system models (ARMA, ARMAX). FIR and IIR filters. Three hours lecture. Three credit hours.

ASCI 5315 Advanced Dynamics I

Prerequisite: MATH 2453. Kinematics of translating and rotating vectors. Dynamics of systems of particles and rigid bodies. Angular momentum. Newtonian mechanics. Lagrangian mechanics. Examples drawn from the fields of robotics, vehicle motion, and planetary motion. Three hours lecture. Three credit hours.

ASCI 5355 Elastic Wave Theory

Prerequisites: MATH 1451, MATH 1452, MATH 2453 and MATH 3322. Elasticity theory developed as a basic necessity to the theory of seismology. Analysis of stress and infinitesimal strain. Perfect elasticity. Equation of motion in term of displacement. Vibration and waves. Theories of body and surface waves. Ray theory and energy partition.

ASCI 5360 Potential Theory

Prerequisites: MATH 1451, MATH 1452, MATH 2453 and MATH 3322. Solution to Laplace's equation using different boundary and initial conditions. One-, Two- and three-dimensional equations will be analyzed. Various coordinate systems (rectangular, cylindrical and spherical) will be used in the solution of the Laplace function, the Associate Legendre function and orthogonality of the Legendre function.

ASCI 7145, 7245, 7345 Introduction to Research in Applied Science

First semester orientation course to allow new students in the applied science doctoral program to work in a number of faculty research areas. This course will aid the student in the selection of his/her doctoral research director. Variable credit of one to three hours. Offered on demand.

ASCI 7118 Research Ethics in Science and Eng.

The course uses a case-based method to cover various topics related to professional research ethics. It is intended for entering science and engineering graduate students in the Donaghey College of Engineering and Information Technology (DCEIT). The purpose of the course is to familiarize students with professional ethics related to research and to prepare them to deal with typical ethical situations that may occur in the course of their graduate studies and professional careers.

ASCI 7189, 7289, 7389. Research in Instrumentation

Design, research in basic, applied instrumentation; requires laboratory research project involving instrumentation characterization or development. F, S

ASCI 7190 Applied Science Seminar

Prerequisites: graduate standing, consent of thesis advisor and graduate coordinator. Students, faculty, and invited speakers will present, discuss, and exchange ideas on research topics of general interest. Credit must be received at least one semester before enrollment in the last research semester. One hour session per week. Course may not be repeated for credit. Graded credit-no credit.

ASCI 7191, 7291, 7391 Cooperative Education in Applied Science

Prerequisite: full time attendance for one semester in the applied science program with a GPA of 3.00 or better and the approval of the major professor and the graduate coordinator. Complements the classroom experience by allowing the student to apply the concepts of instrumentation in the work place. Minimum of one 10 week summer term. Written report, minimum of 200 hours work per credit hour are required. The exact number of hours, and the nature and responsibilities of the work will be specified in writing by the student, the sponsoring faculty member, and the employer. The course may be repeated for credit. The course cannot be used for credit toward the requirements for an applied science degree.

ASCI 7192 Biosciences and Bioinformatics Seminar

Prerequisites: graduate standing, consent of thesis advisor and graduate coordinator. Students, faculty, and invited speakers will present, discuss and exchange ideas on research topics of general interest in the field of Biotechnology. One-hour session per week. Course may be repeated for credit. Graded: credit/ no credit. Cross-listed with BINF 7192.

ASCI 7295 Practical Topics in Science Management

A survey of practical topics relevant to practicing scientist and engineers such as ethics, project management, and grant writing. While an emphasis is placed on bioinformatics, topics will be of interest to all participating in science and engineering projects. Two credit hours. Cross-listed with BINF 7295.

ASCI 7307 Smart Materials

Prerequisite: ASCI 4320 or equivalent. This course will deal with the unique nonlinear, hysteretic response of smart materials that arise due to coupling between mechanical and thermal or electric or magnetic fields. Specifically, microstructural characteristics and constitutive modeling of shape memory alloys, ferroelectric materials and ferromagnetic materials will be covered. Use of these smart materials in sensor and actuator design will be addressed.

ASCI 7318 Micro- and Nano-Fabrication

Pre-requisites: Consent of instructor. This course will introduce some of the important micro- and nano-fabrication techniques that are mostly used in the areas of microelectronics and nanotechnology. Some of the topics that will be covered include diffusion of impurities, thermal oxidation, ion implantation, optical lithography, thin film deposition, etching, nano-lithography, nano-imprinting, growth of nano-rods and nano-springs by glancing angle deposition, and growth of carbon nanotubes. During the course, students will become familiar with some of the basic experiments including thin film and glancing angle depositions, etching, and film characterization techniques. The course is intended for graduate students from science and engineering majors.

ASCI 7317 Nano-structural Materials: Physical and Chemical Properties

Prerequisites: SYEN 3372 or PHYS 4340 or CHEM 4340 or equivalent. This course introduces students to the area of nanotechnology and the novel properties of the materials built at the nanoscale. The course will cover the main properties of nano-materials, various methods for synthesis and characterization and the most up-to-date applications from nano-electronics, advanced materials, bio-medicine, etc. The course is designed for graduate students with a background in chemistry, physics, and engineering.

ASCI 7340 Applied Instrumental Optics

Fundamental concepts in design and implementation of optical principles in analytical instrumentation; solving optics engineering problems; includes electromagnetic wave analysis, reflection and refraction, interference and diffraction, optical waveguides, Fourier analysis, coherence and holography. On demand.

ASCI 7341 Electro-Optics Instrumentation

Prerequisite: Applied Science 7340 or equivalent. Physical principles and operating characteristics of electro-optical devices and systems; gas, chemical, solid state and semiconductor lasers; Gaussian beam optics, laser modulators and scanners; imaging devices; thermal and photon detectors; fiber and integrated optics; nonlinear optical devices. Offered on demand.

ASCI 7344 Plant Hormonal Biology

This class will provide fundamental knowledge about major classes of phytohormones (auxins ABA, ethylene, gibberellins, cytokinins) as well as new plant hormones such as brassinosteroid strigolactones jasmonates. The structure and function of the all classes of plant hormones will be discussed in some detail and the interactions and crosstalks between different phytohormones will be highlighted. Special attention will be given to regulation of biosynthesis of phytohormones for biotechnological applications and agriculture.

ASCI 7355 Introduction to Geophysics

Prerequisite: MATH 1451. Application of geology and geophysics to study the interior of the earth and the development of its surface features.

ASCI 7365 Advanced Seismology

Prerequisite: MATH 3322. Analysis of seismic waves in a uniform medium from a pressure pulse in a spherical cavity. Solution to Sharpe's problem using Laplace Transform. Wave propagation from sources in layered medium of different physical conditions. Numerical integration of equation of motion. Seismometry. Focal mechanism and source characteristics. Internal structure of the earth. Nuclear testing and other explosions. Offered in spring.

ASCI 7375 Biochemistry of Biological Molecules

Prerequisites: introductory biochemistry course or permission of the instructor. Three, five-week modules providing a critical introduction into the structure and biological functions of nucleic acids, proteins and membranes. Topics in the first section, nucleic acids, include structure-function relationships among DNA, RNA, and proteins during replication, transcription and translation. Topics in the second section, proteins, include the principles of protein folding, function, purification and enzyme kinetics. Topics in the third section, membranes, include mobility of membrane constituents, properties of membrane proteins, mechanisms of membrane transport, membrane synthesis and flow, secretion, receptors and signal transduction.

ASCI 7380 Biomedical Instrumentation

Principles of biomedical instrumentation; special constraints in safety, signal transduction, signal-to-noise ratio; special problems in medical instrument design; includes Food and Drug Administration regulations, electrical processing, data acquisition; medical instrument design case studies; emphasis on theory, common difficulties, present research directions of bio-instrumentation design; requires laboratory assignments, major laboratory project. Three hours lecture. Three credit hours. Offered on demand.

ASCI 7381 Physiological Measurement Techniques

Principles, physiology, physics, instrumentation of modern physiological measurements; includes measurements of electrocardiogram, pulmonary function, metabolic rate, blood flow, human performance; ultrasonic imaging, stress tests, impedance cardiology; emphasis on theory of each technique's measurement difficulties, present research directions; requires proposal of a technique that overcomes some disadvantages of existing methods. Three hours lecture. Three credit hours. Offered on demand.

ASCI 7385 Concepts in Genetic Analysis

Prerequisites: introductory undergraduate genetics or molecular biology course. Methods of genetic analysis including mutant isolation, genetic and physical mapping, receptors genetics, evolutionary mechanisms, molecular variation and genomic evolution.

ASCI 7399 Special Topics in Applied Science

Detailed study in applied science and related areas; may be lecture or lecture and laboratory, depending on specific topics. Variable credit of one to three hours. Offered on demand.

ASCI 7405 Principles of Analytical Instrumentation

Modern analytical instrumentation; physical, chemical basis for measurements; basic signal processing; basic optics; includes specific instrumentation, methods for ultraviolet-visible and infrared spectrophotometry, atomic and mass spectroscopy, nuclear magnetic resonance, x-ray methods, analytical separations.

ASCI 7451 Introduction to Air Contamination Evaluation

Generation, propagation, measurement, evaluation of air contaminants (including aerosols, gases, vapors); principles of sample collection and analysis, direct measurement, statistical analysis and interpretation of results; applications include monitoring and modeling of industrial, community, transportation, indoor environments and sources.

ASCI 8100 - 8600 Master's Thesis

Prerequisites: consent of advisor.

ASCI 9100 - 9600 Doctoral Research/Dissertation

Prerequisites: consent of advisor. One to nine credit hours to be determined at the time of registration.

ASCI 9700 - 9900 Doctoral Research/Dissertation

Prerequisites: consent of advisor. One to nine credit hours to be determined at the time of registration.

APPLIED STATISTICS

Graduate Certificate in Applied Statistics

Admission Requirements

Admission requirements are the same as the Graduate School's general requirements, which can be found at the beginning of the Catalog.

Program Requirements (15 hours)

Core Courses (9 hours)

STAT 7340 Advanced Statistical Methods I

STAT 7341 Advanced Statistical Methods II

STAT 7342 Introduction to SAS

Elective Courses (6 hours)

Students must take 6 hours at the 5000-level or above. Courses must be related to statistics or directly support statistics. Elective courses can also be statistic courses from a specific discipline offered by other departments. The director of the program must approve elective courses for credit toward the Graduate Certificate in Applied Statistics.

Students who finish the graduate certificate in Applied Statistics and choose to get a Master of Science in Mathematical Sciences with an emphasis in Applied Statistics can transfer the 15 hours toward the master's degree program.

Courses in Statistics

STAT 7340 Advanced Statistical Methods I

Prerequisite: A grade of C or greater in MATH 1451 and STAT 3352 or equivalent. This course is designed to cover the more common advanced statistical concepts and methods. Probability theory, collecting data, sampling, inference, interval estimation, tests of hypotheses for single mean, two means, proportions, and the use of computer packages.

STAT 7341 Advanced Statistical Methods II

Prerequisite: A grade of B or greater in STAT 7340. This course is designed to cover the more common and advanced statistical concepts and methods. Simple linear regression, multiple linear regression, ANOVA of single factor experiments, ANOVA of multi-factor experiments, non-parametric methods, categorical data analysis, Bayesian decision theory and methods, and the use of computer packages.

STAT 7342 Introduction to SAS

This course is designed to introduce students in all disciplines to conducting data analyses and managing data using the SAS system and SAS programming language. The basics of the SAS language and SAS data sets, reading SAS logs, viewing and printing output, inputting data into SAS, manipulating data and creating new variables using SAS procedures, generating descriptive statistics and frequency distributions using SAS Insight. Performing hypothesis tests and constructing confidence intervals, building categorical models, building and interpreting simple and multiple linear regression models, constructing ANOVA models using SAS procedures and Analyst.

STAT 7343 Programming in SAS

Prerequisite: A grade of B or greater in STAT 7342. This course is designed to introduce students in all disciplines to conducting a deep SAS programming on topics in statistical simulation and computation using the SAS system and SAS programming language. Pseudo-random-variate generation, optimization, Monte Carlo simulation, Bootstrap, and Jackknife methods.

Fribourgh Hall, Room 406

(501) 569-3470

Master of Science/Master of Arts in Biology

The Department of Biology offers a Master's degree with two possible tracks: the thesis option leading to the M.S. and the non-thesis/course work option leading to the M.A. This program is designed to serve a wide variety of post-baccalaureate educational needs in central Arkansas and serves students with diverse backgrounds and goals. The program provides students with core skills desired by potential and current employers, specific knowledge and techniques relevant to specialized fields within biology, and the opportunity to work independently on a thesis or suite of course work suitable to each student's aspirations.

The Department of Biology is composed of faculty with access to excellent laboratory and computer facilities. The Department holds affiliations with the University of Arkansas for Medical Sciences and the Gulf Coast Research Laboratory in Biloxi, Mississippi, which expand student's opportunities for study. For more information, visit the program's website at ualr.edu/biology.

Admission Requirements

Students applying to the Master of Science/Master of Arts program in biology should meet all the requirements for admission to the UALR Graduate School. In addition, the following requirements should be met. Applications for Fall semester entry are due by April 15 and Spring semester entry applications are due by November 1.

- Baccalaureate degree in an appropriate biological discipline with a minimum GPA of 3.0 on a 4.0 scale
- Upper-level course work in four of the following six areas:
 - Cell or molecular biology
 - Ecology
 - Evolution
 - Genetics
 - Physiology or
 - Organismal biology
- Two, lecture courses in physics and four, lecture courses in chemistry, including inorganic and organic chemistry.
- Combined scores of 300 on the verbal and quantitative sections of the GRE general section.
- GRE tests must have been taken within the last five years.
- Formal letter of application written by the applicant, including a personal statement of career interests and objectives;
- Three letters of recommendation from persons well acquainted with the applicant. Letters from former faculty are expected. Students applying to the thesis track are encouraged to obtain a letter of support from a faculty advisor.
- International students must present TOEFL scores. Minimum scores for acceptance are 525 on the paper-based test or 195 on the computer-based version, or 72 on the IBT version.

Conditional Admission

Applicants who do not meet the minimum entrance requirements may be admitted conditionally. In these cases, full admission is contingent upon successful completion of courses to remove any undergraduate deficiencies and completion of 12 graduate credits with a GPA of 3.0 or above.

Financial Aid

Graduate assistantships are available to students pursuing the thesis track. These assistantships support teaching and research activities and are available to qualified full-time students. Tuition is paid, and a stipend is provided for living expenses. Financial support is available only to those students making satisfactory progress toward their degree. Students who begin the thesis option and take one or more thesis hours but later elect to switch to the non-thesis (M.A.) track will not be eligible for financial support. Students must pay registration fees, buy textbooks, and purchase any necessary support materials. To learn about the availability of these assistantships, contact a faculty member in your area of interest or the graduate program coordinator before you plan to apply for admission.

Program Requirements

Core Courses

Students will complete the following 13 credit hours:

BIOL 5415 Biometry

BIOL 7310 Experimental Design

RHET 5302, 5304, 5306, 5315, or 5317

Technical/Scientific Writing (These courses will not be required if the student obtains a suitable score on writing proficiency examination in place for the Applied Science Ph.D. program)

BIOL 7191 Graduate Seminar (3 semesters)

Thesis (M.S.) Option Courses

This option includes the core curriculum and 17 additional hours consisting of 11 credit: hours of course work, including at least 3 credit hours at the 7000 level or above and 6 thesis research hours.

Course Work (M.A.) Option Courses

This option includes the core curriculum and 23 additional hours, including at least 9 credit hours at the 7000 level or above. Students may not receive credit for thesis research hours under this option.

Cell and Molecular Biology Track

This track is designed to complement the PhD in Applied Sciences (Applied Biosciences). Admissions requirements remain the same as those already existing for the biology MS/MA. Writing skills must be demonstrated either through a graduate technical writing course (see existing core) or through the writing proficiency requirements in place for the Applied Science PhD program. An English Writing Proficiency Exam (WPE) will be offered to all thesis track students each Fall term by the Applied Science Department. Students who select the cell and molecular biology track have two options:

Thesis (M.S.) Option

The Thesis Option includes 30 semester hours to include the core requirements (described below), 3 hours of seminar and 6 hours of thesis. The remaining hours will be electives.

Core requirements include at least one course each from three of the following six competency areas:

- Biological analysis and modeling: BIOL 5415 Biometry, BIOL 7420 Phylogenetics,
- BIOL 7310 Experimental design Cellular functions: BIOL 5401 Cell Biology, BIOL 5413 Immunology, BIOL 5406 Pathogenic Microbiology
- Organismal functions: BIOL 5403 Comparative Physiology, BIOL 5419 Plant Physiology, 5422 Mammalian physiology
- Genetics: ASCI 7385 Concepts in Genetic Analysis, ASCI 7387 Genetics
- Biochemistry and molecular biology: BIOL 5418 Molecular biology, ASCI 7375 Biochemistry of biological molecules
- Ecological interactions: BIOL 5412 Plant Ecology, BIOL 7311 Behavioral Ecology

Thesis and Advisory Committee

The student's Advisory Committee will be composed of at least three faculty members, including the student's thesis advisor if in the M.S. track. The student must select a thesis or program advisor by the end of his/her first semester and assemble an Advisory Committee by the end of his/her second semester. The thesis subject is selected by the student and the Advisory Committee by the end of the second semester. The written thesis format must follow the UALR Graduate School Dissertation and Thesis Guidelines found on the Graduate School website.

Thesis Proposal

At least one year prior to the thesis defense, thesis candidates must present a written proposal for his/her thesis work to the Advisory Committee.

Thesis Defense

Students will present and orally defend their completed master's research before their Advisory Committees. The defenses will be open to the public and must be announced at least two weeks in advance.

Course Work Only Option

The Course Work (M.A.) Option includes 36 semester hours to include core requirements listed above, 3 hours of seminar, and the remaining courses to be electives.

Exit Examination

All students will be required to complete comprehensive written examinations, compiled and administered by the students' Advisory Committees as an additional exit requirement for the MS degree.

Graduation Requirements

- Successful completion of an approved program of study with a minimum GPA of 3.0;
- Successful completion of comprehensive exit examinations;
- Successful completion of the thesis and oral defense (thesis option); and
- Successful completion of the writing and seminar requirements

Student Progress

Students are expected to make satisfactory progress toward their degree. Satisfactory progress includes appropriate grades in all courses and steady progress toward research goals as determined by the student's advisory committee. Should progress be deemed unsatisfactory, the student will be informed in writing by the program coordinator with copies to the Graduate School Disputes regarding satisfactory progress will be handled by the Biology Graduate Committee.

Transfer Credit

With written approval of the graduate coordinator and the department chair, a student may meet some of the course requirements with UALR graduate courses in chemistry, integrated science and mathematics, and/or applied sciences or from the University of Arkansas for Medical Sciences. Transfer credit from any other program will generally be limited to six hours.

Courses in Biology

BIOL 5199, 5299, 5399, 5499 Special Topics in Biology

Prerequisites: 20 biology hours, consent of instructor (other prerequisites may be required depending on topic). Specialized areas of study in biological sciences. Credit varies with depth of content. One to four hours lecture per week; up to four hours laboratory per week. Offered on demand.

BIOL 5201 AIDS

Prerequisites: BIOL 1401, graduate standing. The disease AIDS; includes cell biology, the disease process, and the social, economic, legal, and political aspects related to the disease and society.

BIOL 5305 Animal Behavior

Prerequisites: BIOL 1401, 2403, eight additional biology hours or consent of instructor. Known behavior of various vertebrate, invertebrate phyla; emphasis on adaptive significance; special attention to mating, defensive, nutritive, social behaviors; ontogeny of behavioral patterns (where known); relationship of behavior to ecology of various animal populations. Three hours lecture per week.

BIOL 5310 Evolution

Prerequisites: four hours of the core science requirement, graduate standing. Basic principles of evolutionary biology: Darwinian Theory, principles of inheritance, microevolution, and speciation processes; includes the evolution of humans.

BIOL 5311 Neurobiology

Prerequisites: 16 hours in biology or consent of instructor; CHEM 1401 or 1403 strongly encouraged. This course examines the functioning of the nervous system, with emphasis on vertebrates- in particular, humans. The course covers the structure and function of neurons as fundamental unit of the nervous system, functional neuroanatomy, and the basic principles of nervous system development. Three hours lecture per week. Three credit hours.

BIOL 5312 Population and Community Ecology

Prerequisites: BIOL 3303 and at least junior standing. Graduate standing required if student enrolled in BIOL 5312. Basic principles of population ecology will be discussed, including niche concept, demography, population growth and regulation, life history patterns, sociality, competition, predation, mutualisms, and control of community structure. Dual-listed in the UALR Undergraduate Catalog as BIOL 4312. Students cannot receive graduate credit for BIOL 5312 if they have previously taken BIOL 4312. Three hours of lecture per week. Three credit hours.

BIOL 5314 Soil Biology

Prerequisites: BS in biology or permission of the instructor. Concepts of soils are presented with emphasis on biological processes and soil/ecosystem relationships. Hands-on laboratory exercises and field exercises will supplement course lectures. Dual-listed in the UALR Undergraduate Catalog as BIOL 4314. This course is not open to students with credit for BIOL 4314. Three hours lecture per week. Three credit hours.

BIOL 5315 Toxicology

Prerequisites: BS in biology or permission of the instructor. Principles of toxicology are presented with an emphasis on toxicokinetics and toxicity mechanisms. Laboratory testing, risk analysis, and study design requirements are applied to various settings. Lectures will be supplemented with case studies. Dual-listed in the UALR Undergraduate Catalog as BIOL 4315. This course is not open to students with credit for BIOL 4315. Three hours lecture per week. Three credit hours.

BIOL 5401 Cell Biology

Prerequisites: BIOL 1402, 12 additional hours in biology, CHEM 1401 or 1403; microbiology is strongly encouraged. A study of the organization of cells as related to the structure and function of biological molecules. Emphasis is placed on eukaryotic cells. Three hours lecture, three hours laboratory per week.

BIOL 5402 Limnology

Prerequisites: BIOL 1401, 2402, 2403, 3303, CHEM 1403 or equivalent. Physical, chemical characteristics of water; morphometry, physiography of lake, stream basins; ecology, taxonomy of aquatic communities; laboratory includes physical, chemical, biological sampling and analysis methods; field work includes various types of aquatic habitats and sampling methods involved; requires some extended Saturday field trips. Two lectures, one four-hour laboratory per week.

BIOL 5403 Comparative Physiology

Organ function in a wide range of organisms, including vertebrates and invertebrates. A comprehensive survey of functional relationships in more than one group of animals. Three hours lecture, three hours laboratory per week. Four credit hours.

BIOL 5404 Mammalogy

Prerequisites: Biology 3404, 3409, equivalent, or consent of instructor. Classification, distribution, ecology, natural history of mammals; emphasis on Arkansas species; field studies, preparation of study specimens. Two hours lecture, two hours laboratory per week.

BIOL 5405 Ichthyology

Prerequisites: BIOL 1400 or 1401, 3404 or 3409 or equivalent, or consent of the instructor. Classification, phylogeny, morphology, physiology, and ecology of fishes concentrating on North American and Arkansas freshwater fishes. Three hours lecture, three hours laboratory per week.

BIOL 5406 Pathogenic Microbiology

Prerequisites: BIOL 1400 or 1401, 2401, or their equivalents. Survey of pathogenic microbiology, immunology, and virology with emphasis on fundamental principles of each science and their application to the diagnosis and control of human diseases. Three hours lecture, two hours laboratory per week.

BIOL 5407 Herpetology

Prerequisites: BIOL 3404, 3409, or equivalents, or consent of instructor. Classification, anatomy, distribution, ecology, natural history of amphibians and reptiles; emphasis on Arkansas species in field techniques, student projects, laboratory work, curatorial training. Two hours lecture, four hours laboratory per week.

BIOL 5409 Plant Taxonomy

Prerequisites: BIOL 1400 or 1401 2402, or their equivalents. A study of the principles of plant identification, classification, systematics, and nomenclature. Major families of flowering plants with emphasis on the floristics of the immediate area. Two hours lecture, four hours laboratory per week.

BIOL 5410 Fisheries

Prerequisites: BIOL 1400 or 1401, 2403, 3303 or 3409, or their equivalents, or consent of the instructor. A survey of fish management and fish culture principles and techniques including population assessment, habitat improvement, pond culture, commercial fish farming, and an introduction to fish diseases. Three hours of lecture, three hours laboratory per week.

BIOL 5411 Ornithology

Prerequisites: BIOL 2403, 12 additional biology hours. Selected aspects of avian biology; emphasis on ecology, evolutionary biology, natural history, classification of birds; includes lecture, discussion, laboratory, field study.

BIOL 5412 Plant Ecology

Study of plant species ecology (life history and reproductive biology) and vegetation ecology (abundance, structure, dispersion, patterns, and dynamics), with emphasis on quantitative methodology and management principles. Three hours lecture, two hours laboratory per week.

BIOL 5413 Immunology

Immunobiology and immunochemistry of humoral and cellular mechanisms of immunity. Three hours lecture, two hours laboratory per week.

BIOL 5415 Biometry

Prerequisites: 12 hours of biology, environmental health science, or earth science (in combination or singularly), MATH 1302 or higher numbered course, three hours of statistics or consent of instructor, graduate standing. Computer-based course in experimental design, data analysis, and interpretation; objective is the application of statistical procedures relevant to the academic emphasis of students, not statistics per se; especially beneficial to those students planning to seek an advanced degree or to go into quality control or research positions. Offered in spring on even years.

BIOL 5416 Microscopy

Prerequisites: 15 hours of biology, graduate standing. Laboratory in the fundamental theory and practical application of light and electron microscopy including specimen preparation, photomicrography, and digital computer image processing and enhancement; topics include brightfield, darkfield, phase, differential interference contrast, polarized, and epi fluorescent light microscopy and scanning and transmission electron microscopy; emphasizes experimental design and use of the microscope as an experimental tool.

BIOL 5417 Molecular Biology

Prerequisites: nineteen hours in biology including both BIOL 2401 and BIOL 3300; CHEM 1401 or 1403; BS in biology or permission of instructor. Successful completion of either BIOL 3400 or BIOL 4401 is strongly encouraged. A study of molecular biology theory and practice. Emphasis is on the study of model systems to understand the current approaches and laboratory techniques necessary to answer basic questions in current molecular biology. Two hours of lecture and four hours of laboratory per week.

BIOL 5418 Biotechnology

Prerequisites: 19 hours of biology including 2401 and 3300; CHEM 1401 or 1403. BIOL 3400 and 4401/5401 are strongly recommended. BIOL 4417/5417 is also recommended or may be taken concurrently. A study of the applied science of biotechnology designed to introduce students to the elements of a biotechnological career. Topics range from traditional biotechnology such as animal and plant tissue culture to contemporary molecular biotechnology and the use of recombinant DNA technology and genetic engineering in research and industry. Emphasis will be placed on current biomedical, pharmaceutical, and agri/industrial applications. Graduate students must complete and defend a term paper. Two hours lecture, four hours laboratory per week.

BIOL 5419 Plant Physiology

Prerequisites: BIOL 1400 or 1401, 2402, CHEM 2450, or their equivalents, or consent of instructor. Study of water relations, nutrition, and metabolism including photosynthesis, growth, and development. Two hours lecture, four hours laboratory per week.

BIOL 5421 Introduction to Geographic Information Systems

Prerequisites: ERSC 2320 or ENHS 3415 or BIOL 4309, or consent of instructor. This course introduces Geographic Information Systems (GIS) and the use of spatial data for problem-solving in science. The lecture portion of the course focuses on the data models used to represent spatial features and on the processes involved in creating, acquiring, analyzing, and displaying georeferenced information. The laboratory portion of this course employs a project-based methodology including applications from geology, biology, environmental science, and political science to foster basic GIS software proficiency. Two lecture hours per week, four laboratory hours. Four credit hours.

BIOL 5422 Mammalian Physiology

General physiological principles and a treatment of functions and interrelations of mammalian systems. Three hours lecture, two hours laboratory per week. Four credit hours.

BIOL 5423 Plant Anatomy

Detailed coverage of the microscopic anatomy of all the organs of seed plants and a critical evaluation of the major tissue types found within these plant organs. Two hours lecture, four hours laboratory per week. Four credit hours.

BIOL 5424 Entomology

Prerequisites: BIOL 3303 or equivalent, or permission of the instructor. A study of insects including their anatomy, physiology, behavior, development, diversity, classification, and economic importance. Two hours lecture, four hours laboratory. Four credit hours.

BIOL 5426 Plant and Human Nutrition

Prerequisites: BS in Biology or permission of the instructor. Plant nutrition refers to the needs and uses of the basic chemical elements in the plants, which are essential for plant growth and development. Thus, plant nutrition is an area of fundamental importance for both basic sciences (Plant physiology, Plant cell and molecular biology, Plant development) and applied sciences (Agronomy, Crop physiology, Horticulture, Human nutrition and health). Human nutrition refers to the needs and uses of the basic chemical elements and compounds in the human body, which are essential for human development and healthy life. The course consists of lectures, laboratory exercises, and case studies. Dual-listed in the hours lecture, and four hours laboratory per week. Four credit hours.

BIOL 5427 Tissue Engineering

Prerequisites: BS in Biology or the permission of the instructor. Tissue engineering (TE) is defined as the development and manipulation of laboratory-grown molecules, cells, tissues, or organs to replace and/or support the function of injured body parts. TE applies the principles and methods of biology, stem cell biology, immunology, life sciences, physical sciences, engineering, cell and drug delivery, nanobiotechnology, and bioinformatics to understand physiological and pathological systems and to modify and create cells and tissues for therapies for structural tissue repair (e.g., skin, bone, cartilage, tendon, muscle, and blood vessel), for enhancing metabolic function (e.g., liver), for improved drug delivery (localized delivery of a drug), and as a vehicle for cell-based gene therapy. Dual-listed in the UALR Undergraduate Catalog as BIOL 4427. The course consists of two hours of lectures and four hours of laboratory per week. This course is not open to students with credit for BIOL 4427. Four credit hours.

BIOL 7110 Independent Study

Independent study provides an opportunity for a student to gain depth in a specialized area to support a particular aspect of their research. The specific topic and course of study will vary by student and are to be developed with a faculty member in the department and the student's advisory committee to augment the student's background in a specific area or to fill a gap in knowledge when no regularly-scheduled courses are available. No more than two hours of independent study may be counted toward a graduate degree.

BIOL 7210 Independent Study

Independent study provides an opportunity for a student to gain depth in a specialized area to support a particular aspect of their research. The specific topic and course of study will vary by student and are to be developed with a faculty member in the department and the student's advisory committee to augment the student's background in a specific area or to fill a gap in knowledge when no regularly-scheduled courses are available. No more than two hours of independent study may be counted toward a graduate degree.

BIOL 7191 Graduate Seminar

Prerequisites: graduate standing and consent of graduate coordinator. Students, faculty, and invited speakers present, discuss, and exchange ideas on research topics and methods in biology. MS students required to enroll three times and obtain three hour credit. Graded C/NC.

BIOL 7199, 7299, 7399 Selected Topics in Biology

Prerequisites: Graduate standing or consent of instructor. Advanced studies in specialized areas of biological science, such as cell and molecular biology, microbiology, genetics, organizational biology, ecology, fisheries and wildlife management. One to three hours lecture per week depending on credit hours. Offered on demand.

BIOL 7310 Experimental Design in Biology

Prerequisites: Graduate standing and 4415/5415 Biometry or equivalent. Experimental design in biology is designed to provide students with an appreciation of the utility of a rigorous experimental design and the use of inferential statistics in research with biological systems. Students will be given a background in the statistical requirements of manipulative experiments and will critique research designs in recently published literature.

BIOL 7311 Behavioral Ecology

Prerequisites: BIOL 3303, BIOL 4305/5305 or the equivalent or consent of the instructor. This course is a broad introduction to the field of behavioral ecology and how evolutionary and ecological constraints shape behavioral strategies and tactics. Topics to be addressed include the evolution of life histories, reproductive decisions, resource acquisition and utilization, and the costs and benefits of sociality. Three hours lecture per week. Computer exercises during some scheduled lecture times will include foraging and habitat use models, game theory, and species interaction models.

BIOL 7410 Phylogenetic Analysis

Prerequisite: Graduate standing and completion of two courses (or equivalent) from the following: Biometry (BIOL 4415/5415), Linear Algebra (MATH 3312), Mathematical Models (MATH 3324), Molecular Biology (BIOL 4417/5417). Student may also enroll with the consent of the instructor. A computer based course in phylogenetic analysis of molecular sequence data through the use of both distance and character based models. Parsimony, maximum likelihood, and Bayesian inference are key procedures used to assess, test and characterize molecular evolution. Two hours lecture and four hours laboratory per week. Four credit hours.

BIOL 7499 Selected Topics in Biology

Prerequisites: Graduate standing or consent of instructor. Advanced studies in specialized areas of biological science, such as cell and molecular biology, microbiology, genetics, organismal biology, genetics, ecology, fisheries and wildlife management. Two or three hours lecture per week and 2-4 hours laboratory per week. Offered on demand. Four credit hours.

BIOL 8100, 8200, 8300,8400 Thesis Research

Prerequisite: full admission to the program. Thesis research in biology is designed to provide students with graduate level research experience. Under the directions of the student's major advisor and graduate committee, the student will carry out original research to support his/her thesis.

The Department of Environmental Health Science has no graduate programs; however, many of the department's courses are used in other programs.

Courses in Environmental Health Science

Carl Stapleton, Director, Environmental Health Sciences Program, (501) 569-3501

ENHS 5199, 5299, 5399 Special Topics in Environmental Health Sciences

Prerequisite: graduate standing or consent of instructor. Topics include specialized areas of environmental health sciences. Credit varies depending on depth of content. One to three hours lecture per week. Offered on demand.

ENHS 5410 Environmental Planning

Prerequisites: ENHS 2320, or consent of instructor. The planning process and evaluation methods applicable to various environmental programs are addressed. Resource allocation and procurement topics are included as appropriate to environmental planning. Case studies are presented which include areas such as watershed planning, land use, solid and hazardous wastes, air quality, and energy. Group discussions, role playing exercises, computer exercises and field study tasks will supplement class lectures.

ENHS 5415 Environmental Impact Analysis

Prerequisites: ENHS 3310, ENHS 3340 or 3350, RHET 3316, BIOL 3303 and 3103, STAT 4350, or consent of the instructor. This course provides individuals with knowledge and skills necessary to prepare and review environmental assessments (EAs) and environmental impact statements (EISs). The National Environmental Policy Act (NEPA) and its key components are presented for discussion. Case studies and group discussions are used to supplement class lectures. Field and laboratory exercises appropriate to the environmental impact analysis (EIA) process will be presented and used to prepare an EA for a selected site.

ENHS 5430 Environmental Epidemiology

ENHS 3340 or 3350, BIOL 2401, STAT 4350, or consent of the instructor. The principles of environmental epidemiology are introduced with specific emphasis on its application to various environmental settings. Statistical methods used for analyzing environmental epidemiological data are introduced. Computer applications will be presented in lecture and laboratory sessions. The role of environmental epidemiology in anti-bioterrorism programs will be presented. Lectures will be supplemented with laboratory computer exercises, site visits, and field studies.

Science Laboratory Building, Room 451

(501) 569-3152

The Master of Arts and Master of Science programs in chemistry provide advanced preparation for careers in government or industrial research or for doctoral study. The programs' curricula are a blend of traditional and nontraditional, innovative courses that reflect the needs of modern chemistry. The UALR Department of Chemistry offers research-quality instrumentation and computer facilities as well as individual attention to each student and a high quality of instruction. Please visit the department's website at ualr.edu/chemistry.

Admission Requirements

Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale), or 3.0 in the last 60 hours

Entering students will be counseled and placed in appropriate courses based on their performances on placement tests in the four sub-disciplines of chemistry.

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the program coordinator for information. International applicants for teaching assistantships must have an overall score of at least 50 on the Test of Spoken English. (The testing facility must send scores to the program coordinator).

Program Requirements

Both chemistry degrees require at least 30 graduate chemistry hours, including at least three of four core courses (CHEM 7311 Analytical, 7340 Inorganic, 7350 Organic, 7370 Physical), as determined by the department's graduate programs committee.

The Master of Science requires CHEM 8100-8400 Thesis Research and 7190 Graduate Seminar. The student selects a thesis advisor and a specific thesis research project, then researches, writes, and orally defends a thesis (11 credit hours).

For the Master of Arts, 12 approved course hours replace the thesis and seminar hours. The remaining hours are elective and might include graduate chemistry courses of specific interest to the student; up to three graduate chemistry hours transferred from another school; up to three approved graduate hours from another UALR department; or up to six 5000-level hours.

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above;
- Successful completion of written thesis and oral defense (MS only).

Courses in Chemistry

CHEM 5251 Organic Preparations

Prerequisite: CHEM 3151 or 4250. Advanced experiments in organic chemistry using special apparatus and techniques. Two three-hour laboratories per week. Offered on demand.

CHEM 5321 Biochemistry II

Prerequisites: CHEM 4420 or 5420. Continuation of Biochemistry I, covering energy generation, metabolism of lipids and amino acids, integration of metabolism, DNA replication and repair, transcription, translation, and control of gene expression. Dual-listed in the *UALR Undergraduate Catalog* as CHEM 4321. Students who have completed CHEM 4321 may not enroll in CHEM 5321. Lecture three hours per week. Three credit hours.

CHEM 5330 History of Chemistry

Prerequisite: CHEM 3350 with C or greater. This course is a survey of the growth and development of chemistry. Lectures will stress connections of modern commiserate to past chemists/scientists and how ideas are passed from generation to generation. The personality and human side of the scientists will be emphasized along with the interactions between science and society. Dual-listed in the *UALR Undergraduate Catalog* as CHEM 4330. Students who have completed CHEM 4330 may not enroll in CHEM 5330.

CHEM 5340 Inorganic Chemistry

Prerequisite or co-requisite: CHEM 3340, and 3572 or 3371 (3371 may be taken as corequisite). A study of inorganic chemistry with detailed emphasis on chemical bonding of covalent molecules, transition metal complexes and their bonding theories, spectroscopy of inorganic complexes, magnetism, organometallic chemistry with catalysis, and introduction to bioinorganic chemistry. Laboratory will reinforce concepts developed in lecture. Required for BS major. Dual-listed in the *UALR Undergraduate Catalog* as CHEM 4340. Students who have completed CHEM 4340 may not enroll in CHEM 5340. Lecture two hours and laboratory three hours per week. Three credit hours.

CHEM 5342 Environmental Chemistry

Prerequisites: CHEM 3350 and CHEM 2310 with grade of C or greater. A survey of environmental chemistry. Topics covered will include: Composition of the atmosphere and behavior; energy and climate; principles of photochemistry and surfactants; harloorganics and pesticides, water and air pollution (tropospheric and stratospheric) and connections to climate change; elemental and molecular environmental chemistry in geological media; water cycle and water treatment; principles of nuclear chemistry and radiochemistry; nuclear environmental chemistry; and evaluation of energy sources that are sustainable. Dual-listed in the *UALR Undergraduate Catalog* as CHEM 4342. Students with credit for CHEM 4342 may not enroll in CHEM 5342. Lecture three hours per week. Three credit hours.

CHEM 5350 Intermediate Organic Chemistry

Prerequisite: CHEM 3351. Reaction mechanisms; correlation of structure with reactivity; literature survey of recent advances in the field. Three hours lecture per week. Offered on demand.

CHEM 5360 Medicinal Chemistry

Prerequisites: General Organic Chemistry I and II, CHEM 3350 and 3351, General Organic Laboratory 1 CHEM 3151, and General Organic Laboratory II CHEM 3151 or Qualitative Organic Analysis Laboratory CHEM 3250, all with grades of C or greater. This course will serve as an introduction to the chemistry and theory of drug action that includes general drug design, drug-receptor interactions, drug design through enzyme inhibition, pharmacokinetics, and drug metabolism. Additionally, the mechanism of specific drug classes will be examined. Lecture three hours per week. Three credit hours. This course cannot be used as a substitute for the Biochemistry requirement of the ACS certified degree.

CHEM 5380 Introduction to Polymer Chemistry

Prerequisites: CHEM 3151 and 3351 or 4250 (recommended but not required: Chemistry 3170, 3271, 3371, 3470, 3572). Coordination of theoretical, practical aspects; includes history, types of polymerizations, kinetics, molecular weight, physical properties including thermal and spectroscopic characterization, biopolymers, engineering resins. Two hours lecture, three hours laboratory per week. Offered in spring on even years.

CHEM 5399 Special Topics in Chemistry

Prerequisite: consent of instructor. Topics may include chemical carcinogenesis, environmental chemistry, solid state chemistry, radiochemistry, macromolecules, surface chemistry, quantum chemistry, others. Three hours lecture per week. Offered on demand.

CHEM 5411 Instrumental Analysis

Prerequisites: CHEM 2310 and 2311; PHYS 1322 or 2322. Most common modern instrumental methods of analysis; includes topics in spectroscopy, electrochemistry, chromatography. Three hours lecture, one four-hour laboratory per week. Offered in fall.

CHEM 5420 Biochemistry I

Prerequisites: CHEM 2510, 3151, 3351. Basic chemistry and metabolism of proteins, lipids, carbohydrates, nucleic acids; action of vitamins, hormones, enzymes. Three hours lecture, three hours laboratory per week. Offered in spring.

CHEM 7190 Graduate Seminar

Prerequisites: graduate standing, consent of thesis advisor and graduate coordinator. Students, faculty, and invited speakers will present, discuss, and exchange ideas on research topics of chemical interest. Required of the MS student. Credit must be received at least one semester before enrollment in the last research semester. One hour session per week. Course may not be repeated for credit. Graded credit/no credit. Offered in fall and spring.

CHEM 7240 Inorganic Preparations

Prerequisite: CHEM 4411/5411 or equivalent. Techniques of synthesis and identification of inorganic compounds. Six hours laboratory per week. Offered on demand.

CHEM 7311 Advanced Analytical Chemistry

Prerequisite: CHEM 4411/5411 or equivalent. Complex solution equilibria and selected topics in spectroscopy, electro-analytical techniques, separations procedures. Three hours lecture per week.

CHEM 7317, 7318, 7319 Selected Topics in Analytical Chemistry

Prerequisite: consent of instructor. Topics may include electro-analytical techniques, modern functional group analysis, instrumental design and control, others. Offered on demand.

CHEM 7340 Advanced Inorganic Chemistry

Prerequisite: CHEM 4340/5340 or equivalent. Advanced theoretical concepts; includes atomic structure, molecular and solid structures, bonding, ligand field theory, organometallic chemistry, metals chemistry, reaction mechanism. Three hours lecture per week.

CHEM 7347, 7348, 7349 Selected Topics in Inorganic Chemistry

Prerequisite: CHEM 4340/5340. Topics may include magnetochemistry, X-ray crystallography, chemistry of diamond-like semiconductors, chemistry of rare earth elements, chemistry of boron and its compounds, reaction mechanisms, others. Three hours lecture per week. Offered on demand.

CHEM 7350 Organic Reaction Mechanisms

Prerequisites: CHEM 3350 or equivalent, 3351 or equivalent. Reaction mechanisms of classical organic reactions; includes ionic and free radical addition and substitution, oxidation, reduction, elimination reactions. Three hours lecture per week. Offered in fall.

CHEM 7351 Modern Synthetic Reactions

Prerequisites: CHEM 3350 or equivalent, 3351 or equivalent. Modern organic reactions, their applications in synthesis. Three hours lecture per week. Offered on demand.

CHEM 7357, 7358, 7359 Selected Topics in Organic Chemistry

Prerequisites: CHEM 3350, 3351. Topics may include natural products, stereochemistry, photochemistry, heterocyclic compounds, free radicals, carbenes, polymers, others. Three hours lecture per week. Offered on demand.

CHEM 7370 Physical Principles of Chemical Reactivity

Prerequisites: CHEM 3371 or equivalent, 3470 or equivalent. Chemical, physical properties of selected species in terms of thermodynamics, kinetics, molecular structure; examples in scientific literature illustrate how physical chemistry principles may be applied to chemical reactivity. Three hours lecture per week. Offered in spring.

CHEM 7371 Chemical Thermodynamics

Prerequisites: CHEM 3371, 3470. Application of the three laws of thermodynamics to chemical systems; relates spontaneity and equilibrium in gaseous, heterogeneous-phase, and solution reactions to thermal, electrochemical measurements. Three hours lecture per week. Offered on demand.

CHEM 7372 Chemical Kinetics

Prerequisites: CHEM 3371, 3470. Chemical reaction rates; includes determination of empirical rate laws, collision and transition state theories, activation energy and catalysis, reaction mechanisms, kinetic intermediates. Three hours lecture per week. Offered on demand.

CHEM 7377, 7378, 7379 Selected Topics in Physical Chemistry

Prerequisites: CHEM 3371, 3470. Topics may include quantum chemistry, statistical thermodynamics, semi-empirical molecular orbital calculations, molecular spectroscopy and photochemistry, states of matter, mathematical methods in chemistry, others. Three hours lecture per week. Offered on demand.

CHEM 7390 Selected Topics for Teachers

Prerequisites: experience in teaching secondary science and/or consent of instructor (based on assessment of student's chemistry background). For secondary science teachers to improve and extend their knowledge of basic chemical concepts. These concepts are related to modern chemical topics wherever possible. Laboratory emphasizes techniques for conducting classroom demonstrations. Two hours lecture, three hours laboratory per week. Offered on demand.

CHEM 8100-8400 Thesis Research

Prerequisites: consent of coordinator, thesis advisor. Scholarly investigation of a selected chemical problem, culminating in a written thesis with oral defense; student presents a seminar on the research in the last course / hours, typically during the final semester, to faculty and fellow students. Eleven hours required for MS degree. May not be applied to the MA degree. Variable credit. Credit / no credit grade based on written progress reports.

FA 210

(501) 569-3296

Master of Science in Integrated Science and Mathematics

The Master of Science in Integrated Science and Mathematics (MSISM) degree is designed to serve populations of graduate students whose interests and needs for professional development transcend traditional disciplinary boundaries. The program gives the student the opportunity to combine graduate courses from many departments, allowing them to design a program to suit their needs. Courses address the challenges and methods of study in such areas as STEM education environmental science, forensic sciences, integrated natural and life sciences, and mathematics disciplines. Students pursuing this degree will be able to construct a variety of rigorous, innovative, and non-traditional interdisciplinary programs.

Students in this program come from a variety of undergraduate fields, including biology, chemistry, environmental health sciences, earth sciences-geology, physics, health sciences, and mathematics. Professionals currently employed in environmental sciences, medical research support, and forensic science and others who are interested in integrating the sciences would particularly benefit from this degree.

Admission Requirements

- Official copies of all transcripts
- GPA of at least 2.75 overall, or 3.0 in the last 60 hours
- Three letters of reference
- A 1-2 page Statement of Career and Education Objectives
- A 1-2 page Curriculum Vita or resume
- A minimum score of 147 on the verbal and 147 on the quantitative sections of the GRE general section. GRE tests must have been taken within the last five years. Applicants with a 3.5 or greater GPA on their last 60 hours are not required to take the GRE.
- International students must present TOEFL scores. Minimum scores for acceptance are 525 on the paper-based test or 197 on the computer-based version.

All undergraduate work will be assessed prior to acceptance into the degree program and deficiencies will be defined at that time. All deficiencies must be removed before students progress into the program.

Program Requirements

The MSISM degree combines writing, thinking, and analyzing skills with study of specialized knowledge in several science disciplines and mathematics. The program requires 36 semester hours of graduate course work for the Course Work Option and 30 semester hours of graduate course work for the Thesis or Project Option. Students must take a minimum of 18 semester credit hours of graduate-level work which emphasizes the interdisciplinary content in at least two of the following traditional disciplines:

Biology

Chemistry

Environmental Health Science

Geology-Earth Science

Health Science

Physics and Astronomy

Mathematics

Additional course work may come from outside the College of Arts, Letters, and Sciences. The course work curriculum must be approved by the student's advisor and by the Integrated Science Program Director.

Possible degree combinations with sample curriculum content blocks are:

Biology - Chemistry

- 18 credit hours in biology and chemistry
- 3 credit hours of technical writing
- 3 credit hours of applied science
- 6 credit hours of thesis or project

Biology - Earth Science

- 18 credit hours of biology and earth science
- 3 credit hours of statistics /
- 3 credit hours of technical writing
- 6 credit hours of thesis or project

Mathematics - Earth Science

- 32 credit hours of mathematics and earth sciences
 - 4 credit hours of integrated science and mathematics
- Please contact the program director to discuss additional degree combinations.

Thesis or Project Option

A six-credit-hour project or thesis is required for students in the Thesis or Project Option. For both the Thesis and Project Options, the student will have a three person graduate committee composed of at least one faculty member from each area of emphasis with one faculty member serving as the student's advisor. The advisor, with input from the committee, will recommend which option, Thesis or Project, is right for optimizing the student's educational goals and develop a curriculum for the student.

The topic of thesis study and the scope of the study are designed by the student in consultation with the student's advisor. Theses require a formal thesis proposal that must be approved by the student's committee. Thesis studies are hypothesis driven lines of scientific inquiry that demonstrate a student's ability to:

- identify a scientific problem,
- design a plan to examine the problem,
- carry out the plan,
- interpret the results of the study, and
- defend the interpretations in the form of an oral defense.

A formal written thesis document is required. The UALR Dissertation and Thesis Guidelines, available at ualr.edu/gradschool, provide a detailed description for preparing the thesis document.

Projects are scholarly activities that do not fit within the scope of a traditional thesis. Projects require a formal proposal and must be approved by the student's committee. A formal document may not be appropriate for all projects. Documentation of the project is required, as is a formal presentation of the project. The formal presentation of the project must be approved by the student's committee.

Course Work Option

For students in the Course Work Option, an additional 12 credit hours of graduate course work is required beyond 24 hours for a total of 36 hours. Students in this option will have a course work committee composed of a faculty advisor from each of the areas of emphasis that the student has selected. This committee will meet with the student each semester to discuss the student's progress, and it will approve all course work.

Courses in Integrated Science and Mathematics

A list of courses in Integrated Science (IGSC) with descriptions is provided below. Course listings and descriptions for earth science, environmental science, and physics are found in the “Non-program Courses” section in this Catalog. For a list of available courses in biology, chemistry, and applied science, please visit the “Master of Science in Biology,” “Master of Science and Master of Arts in Chemistry”, and the “Master of Science and Doctor of Philosophy in Applied Science” sections in this Catalog.

IGSC 5401 Integrated Science Methods

Prerequisite: At least 16 hours of science. This course incorporates lecture, laboratory work, and field methods to stress the learning of science as an active, integrated constructive process that involves experimentation, investigation, communication, reasoning and problem solving as they apply to life, earth and physical systems. Three hours of lecture per week and two hours of laboratory per week.

IGSC 7192,7292,7392 Independent Study

Independent study provides an opportunity for students to gain depth in a specialized area to support a particular aspect of their degree program. The specific topic and course of study for the independent study will vary by student. The student will develop the course of study in collaboration with a faculty member in the department and their academic advisor.

IGSC 7195/7295/7395 Internship in Integrated Science and Mathematics

Prerequisites: graduate standing and consent and approval of assignment by advisor. Supervised professional experience related to students discipline with governmental agencies, industry and consulting firms. Forty hours supervised work per credit hour. One, two, or three credit hours.

IGSC 7199, 7299, 7399, 7499 Special Topics

Prerequisites: variable, depending on instructor and course content. Courses will cover topics that draw from two or more scientific disciplines and that can be best taught from an integrated perspective. Credit and laboratory /lecture format vary depending on the topic. One hour of credit per one hour of lecture; one hour of credit per two-three hours of laboratory.

IGSC 7301 Higher Order Thinking in Science

Prerequisite: consent of the instructor. Laboratory-based; stresses the learning of science as active, integrated, constructive processes involving experimentation, investigation, communication, reasoning, and problem solving; show connections and relevant applications in life systems, earth systems, and physical systems; goals include helping teachers extend content learning and create successful learning environments for every student through use of manipulatives, calculators, science equipment, and various learning strategies; provides access to appropriate materials, equipment, and technology. Two hours of lecture and two hours of laboratory per week.

IGSC 7391 Cooperative Education in Integrated Science

Prerequisites: Graduate standing and consent and approval of assignment by advisor. Supervised professional experience related to students discipline with governmental agencies, industry, and consulting firms. This course requires a minimum of 200 semester work hours. Three credit hours.

IGSC 8100, 8200, 8300 Thesis Research

Under the supervision of the student’s major advisor, along with the graduate advisory committee, the student will carry out original research to support his thesis. May be taken for a maximum of six hours.

Master of Science in Mathematical Sciences

The Master of Science in Mathematical Sciences program provides advanced preparation for careers in private industry and government or for doctoral study. It is designed to accommodate full-time employees and can be completed in two years by including summer classes. Concentrations are offered in applied mathematics, applied statistics, computational sciences, and interdisciplinary mathematics. Computer labs are available with research-quality mathematical and scientific software.

The program is continually adding to and updating its software and a number of courses in the program require computer use. Applied mathematics is critical to most areas of today's highly technological workforce, and the master's program is a passport to this exciting and expanding career field. For more information visit the mathematical sciences program website at ualr.edu/mathematics/.

Admission Requirements

- Baccalaureate degree from an accredited institution with a cumulative grade point average of 2.75 (4.0 scale) or 3.0 in the last 60 hours
- Courses with a grade of C or greater in matrix algebra, differential equations, an advanced calculus sequence, statistical methods, and a scientific programming language
- Six appropriate advanced mathematics hours with grades of C or greater (i.e., Analysis, Topology, Numerical Analysis, Mathematical Statistics)
- Official Graduate Record Examination score
- Letters of Recommendation
- Writing Sample

Applicants lacking prerequisite classes must complete specified preparatory courses. Contact the program coordinator for details.

Program Requirements

The mathematical sciences degree requires 33 graduate semester credit hours with a master's research project or 36 graduate credit hours without the project, including 12 core hours; 3 research project hours or 6 alternate hours; 9 hours of mathematical emphasis courses; 9 hours from specialization; and written and oral comprehensive examination. In addition, the Graduate Record Examination general and mathematics sections must be taken during the first semester.

The written comprehensive examination covers material from the four core courses - MATH 7323 Advanced Numerical Analysis I, MATH 7350 Mathematical Statistics I, MATH 7311 Advanced Linear Algebra, and MATH 7322 Advanced Differential Equations. The oral comprehensive examination consists of a presentation from the student's area of specialization and a question and answer session derived from the student's course work.

Core Courses

MATH 7311 Advanced Linear Algebra

MATH 7322 Advanced Differential Equations

MATH 7323 Advanced Numerical Analysis I

MATH 7350 Mathematical Statistics I

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the program coordinator for information.

Specializations

There are two areas of specialization: applied mathematics and applied statistics.

Applied Mathematics

This specialization requires 33 semester credit hours, the research project, or 36 semester hours without the research project. In addition to the 12 hours of core courses listed above, the degree requires 9 hours of mathematical emphasis courses, 9 hours of elective courses, MATH 8300, and written and oral comprehensive examinations.

Emphasis Courses

MATH 7312 Computational Linear Algebra
MATH 7324 Advanced Numerical Analysis II
MATH 7325 Partial Differential Equations

Approved Electives

MATH 5302 Complex Analysis
MATH 5308 Integral Transforms
MATH 7351 Mathematical Statistics II
MATH 7352 Mathematical Statistics III
MATH 7353 Linear and Nonlinear Regression
MATH 7354 Experimental Design
MATH 7355 Sampling Techniques
MATH 7399 Selected Topics
MATH 5305 Financial Math

Applied Statistics

This program is designed to place students into an industry working as a statistician. In addition to the 12 hours of core courses listed above, the degree requires MATH 7351, 7352, and 7353, 9 hours of courses in an area of emphasis, MATH 8300 or 6 hours of approved electives, and written and oral comprehensive examinations.

Approved Electives

MATH 7354 Experimental Design
MATH 7355 Sampling Techniques
MATH 7312 Computational Linear Algebra
MATH 7399 Selected Topics
MATH 5305 Financial Math

Emphasis Areas

MATH 7399 Special Topics
MATH 7354 Experimental Design
MATH 7355 Sampling Techniques

Examples of elective courses include:

STAT 7343 Programming in SAS
MATH 7350 Mathematical Statistics I
MATH 7351 Mathematical Statistics II
MATH 7352 Mathematical Statistics III
MATH 7353 Linear and Nonlinear Regression Models
MATH 7354 Experimental Design

Graduation Requirements

- Successful completion of an approved program of study
- Pass both the written and oral comprehensive exams

Courses in Mathematics

MATH 5199, 5299, 5399 Selected Topics

Prerequisites: graduate standing, consent of instructor. Content varies; see semester schedule. One hour lecture per week for each hour of credit. Offered on demand.

MATH 5301 Analysis I

Prerequisites: MATH 2307, 3312. Real number system, Euclidean n -space, complex numbers, topology of general metric spaces, continuous functions, point-wise and uniform convergence, series, the derivative. Offered on demand.

MATH 5302 Complex Analysis

Prerequisite: grade of C or greater in MATH 5303. Algebra of complex numbers, analytic functions, integration, power series, Laurent series, elementary conformal mappings. Three hours lecture per week.

MATH 5303 Advanced Calculus I

Prerequisites: MATH 2307, 3312. Real number system, sequences, limits, continuity, metric spaces, convexity, derivatives, linear analysis, implicit function theorem.

MATH 5304 Advanced Calculus II

Prerequisite: MATH 4303/5303. Measure theory, geometry of curves and surfaces, differential forms, Stoke's theorem, and Green's theorem.

MATH 5305 Financial Mathematics

Prerequisites: Math 1451 or equivalent. Determining equivalent measures of interest; discounting; accumulating; determining yield rates; estimating the rate of return on a fund; amortization. Three credit hours.

MATH 5308 Integral Transform Theory

Prerequisite: MATH 3322. Linear differential equations; Laplace transform; functions of complex variable, integration by method of residues, Laplace transform inversion integral; Z -transform, Z -transform inversion integral, difference equations; Fourier series, Fourier transform.

MATH 5323 Numerical Analysis

Prerequisites: MATH 2307 or equivalent, 3312 or equivalent; scientific programming language. Error analysis, solutions of equations, interpolation, approximations, numerical differentiation and integration, linear systems.

MATH 7311 Advanced Linear Algebra

Prerequisite: MATH 3312. Vector spaces, subspaces, linear independence and dependence, basis and dimensions; linear transformations, null space, rank, isomorphism, inner product spaces, norms, inner products, orthogonal sets, orthogonal projections, bilinear and quadratic forms; eigen values and eigen vectors, similar matrices, diagonalization, symmetric and Hermitian matrices. Jordan canonical form. Three lecture hours per week.

MATH 7312 Computational Linear Algebra

Prerequisites: MATH 3312 and MATH 4323. LU decomposition; QR factorization; Iterative techniques for solving systems of equations, Gauss-Seidel; Eigen value problem, iterative and direct techniques, The Condition Number; Lanczos Algorithm. Three lecture hours per week.

MATH 7322 Advanced Differential Equations

Prerequisite: MATH 3322. Power series solutions, systems of differential equations, nonlinear ordinary differential equations, phase plane analysis, stability, differential equations and applications.

MATH 7323 Advanced Numerical Analysis I

Prerequisites: MATH 4323, 7311. Numerical solutions of linear operator equations, some nonlinear systems, optimization methods.

MATH 7324 Advanced Numerical Analysis II

Prerequisites: MATH 7323 and 7325. Numerical analysis of ordinary and partial differential equations. Three lecture hours per week.

MATH 7325 Partial Differential Equations

Prerequisites: MATH 3322 or equivalent course. First order equations in two independent variables, the method of characteristics, discontinuous and weak solutions; Linear second order equations, elliptic equations, hyperbolic equations, parabolic equations; Fourier series. Three lecture hours per week.

MATH 7326 Optimization

Prerequisites: MATH 3312 and 3322 or equivalent courses. Linear and nonlinear programming. Three lecture hours.

MATH 7327 Graph Theory

Prerequisites: MATH 3312 or equivalent course. Graphs and subgraphs; trees; connectivity; Euler tours and Hamiltonian cycles; matchings; planar graphs; directed graphs; networks. Three lecture hours per week.

MATH 7330 Theory of Finite Element Methods

Prerequisites: Math 2453 and Math 3322 or equivalent. Finite element method is a numerical technique for finding approximate solutions of partial differential equations. It has strong applications in engineering. This course will provide mathematical foundation for finite element method. Three lecture hours per week. Three credit hours.

MATH 7350 Mathematical Statistics I

Probability measures, combinatorial theory, random variables, continuous and discrete distributions, expectations, moments, jointly distributed random variables, independence, functions of a random variable, limit theorems.

MATH 7351 Mathematical Statistics II

Sampling, sampling distributions, order statistics, point estimators and their properties, interval estimators and their properties, tests of hypotheses, linear models, nonparametric methods.

MATH 7352 Mathematical Statistics III

Prerequisites: MATH 7350. Multivariate distribution theory and quadratic forms; Linear models and least squares; Analysis of categorical data; Non-parametric statistics; Decision theory and Bayesian inference. Three lecture hours per week.

MATH 7353 Linear/Non-Linear Regression

Prerequisites: MATH 7350. Differentiation of vectors and matrices; random vectors and matrices; distribution theory; full rank linear regression models; non-linear regression models. Three lecture hours per week.

MATH 7354 Experimental Design

Prerequisites: MATH 7350 (may be taken as a corequisite with the consent of the instructor). Single factor experiments; Randomized blocks and Latin square designs; factorial designs; repeated measures; nested designs; response surfaces. Three lecture hours per week.

MATH 7313 Real Analysis

Prerequisites: A grade of C or greater in MATH 4302/5302. Set theory and axioms, functions of a real variable, Lévesque measure, differentiation and integration, Branch Spaces

MATH 7355 Sampling Techniques

Prerequisites: MATH 7350 (may be taken as a corequisite with the consent of the instructor). Simple random sampling; sampling for proportions; stratified random sampling; ratio estimators; systematic random sampling; cluster sampling; acceptance sampling. Three lecture hours.

MATH 7399 Selected Topics in Applied Mathematics

Prerequisite: consent of instructor. Topics in mathematics, applied mathematics, and numerical analysis may include discrete mathematics; ordinary, partial differential equations; integral transforms; complex variables; optimization techniques, linear algebra; approximation theory; topology; geometry; abstract algebra; number theory. Topics in statistics may include statistical inference, sampling, linear models, biostatistics, stochastic processes, statistical computing. May be repeated for credit when topic changes. Offered on demand.

MATH 8300 Master Research Project

Prerequisite: 18 graduate hours. Research and individual investigation on a topic in applied mathematics.

COLLEGE OF BUSINESS

Donald W. Reynolds Center, Suite 304, (501) 569-3356, (501) 569-8898 (fax), ualr.edu/cob

Professor Jane Wayland, Dean

Professor Sonya F. Premeaux, Associate Dean for Graduate Studies

The College of Business (COB) offers the following graduate degrees:

- Master of Accountancy (MACC)
- Master of Business Administration (MBA)
- Master of Science in Business Information Systems (MS in BIS)
- Graduate certificate in Accountancy (ACCT-GC)
- Graduate certificate in Taxation (TAXN-GC)
- Graduate certificate in Management (MGMT-GC)
- Graduate certificate in Business Information Systems (BINS- GC)

The COB partners with the Bowen School of Law to offer concurrent MBA-JD degrees and with UAMS to offer concurrent MBA-PharmD and MBA-MD programs. In addition, the COB offers Graduate Certificates in Accountancy, Taxation, Management, and Business Information Systems. A brief description of each of these programs follows.

The **Master of Accountancy (MACC)** is designed for students holding an accounting undergraduate degree or its equivalent. The goals of the MACC are:

- to facilitate entry and career growth in the field of Accounting, including the completion of the 150-hour CPA exam requirements;
- to add significant value to participants' previous Accounting education, and;
- to provide an integrated yet diverse graduate program in accounting education.

Students interested in the MACC program should contact the Chair of the Department of Accounting at (501) 569-3351.

The **Master of Business Administration (MBA)** is for students with liberal arts, scientific, or other professional backgrounds as well as students with prior business studies. At the completion of the MBA program, students should be able to demonstrate the following:

- an understanding of the strategically interrelated functional areas of business;
- the use of analytical skills, critical thinking skills, and technology to solve contemporary business problems;
- an understanding of the impact of diversity and global and ethical perspectives in business; and
- effective teamwork and communication skills.

Students interested in the MBA program should call the Associate Dean for Graduate Business Programs at (501) 569-3356 or email mbaadvising@ualr.edu.

The **Concurrent MBA Programs (MBA-JD, MBA-PharmD, and MBA-MD)** allow students to concurrently complete the requirements of their primary professional program (JD, PharmD or MD) and the MBA. Attorneys, pharmacists and medical doctors find that the business skills provided by the MBA are extremely useful in their professional practices. Students in these concurrent programs can count two courses from their primary program as MBA electives, and two courses from the MBA program are allowed as electives in their primary program. Law students interested in the MBA-JD should contact the associate dean of the Law School. Pharmacy students interested in the concurrent MBA-PharmD program should contact the program coordinator at (501) 686-6498 or email mbaadvising@ualr.edu. Medical students interested in the concurrent MBA-MD program should contact the program coordinator at (501) 686-8499 or email mbaadvising@ualr.edu.

The **Master of Science in Business Information Systems (MS in BIS)** is designed to integrate knowledge of information technology (IT) and the functional areas of business with emphasis on strategic IT applications and the development of project management, team, and communication competencies vital for IT managers. The program can be customized to meet varying career goals for those with or without previous technology or business course work. The goal of the program is to position graduates for advancement in the information systems field. Students interested in the MS in BIS program should contact the Chair of the Department of Business Information Systems at (501) 569-8854.

The **Graduate Certificate Programs in Accountancy and in Taxation (ACCT-GC and TAXN-GC)** each consists of 12 graduate credits. The ACCT-GC is designed for accountants seeking to expand their professional knowledge and/or meet the academic requirements to sit for the Uniform CPA Exam. The TAXN-GC is designed for either accountants or attorneys. Courses taken in these programs may be used to fulfill Continuing Professional (or Legal) Education requirements. Credits earned in these certificate programs may also be applied towards the MACC. Students interested in these certificate programs should contact the Chair of the Department of Accounting at (501) 569-3351.

The **Graduate Certificate in Management (MGMT-GC)** is a 12-credit program designed to develop conceptual, interpersonal, and practical problem-solving skills that apply to the management of for-profit, non-profit, and governmental organizations. Students in this program will learn to demonstrate the ability to apply relevant managerial models and theories/approaches in situational analysis, an understanding of the principles of human resources management, and an ability to apply the concepts underlying effective interpersonal relations and group/team leadership skills. Students interested in the certificate program should contact the Associate Dean for Graduate Business Programs at (501) 569-3356 or email mbaadvising@ualr.edu.

The **Graduate Certificate in Business Information Systems (BINS-GC)** is a 12-credit program designed to provide a focused collection of course work in business information systems, providing students pertinent knowledge and skills necessary to enter into or progress their careers in the information systems field. The program is designed for post-baccalaureate students and working professionals who are interested in enhancing their current technical and managerial skills for career advancement or preparation for entering a master's program. Course work completed for the certificate may be applied to the Master of Science degree in BIS. Students interested in this certificate program should contact the Chair of the Department of Business Information Systems at (501) 569-8854.

General Policies and Guidelines

Application Deadlines for Graduate Business Programs

Completed applications with all required documentation must be received by the College of Business by the following deadlines:

Summer Semester - April 15th

Fall Semester - July 15th

Spring Semester - December 10th

Prospective students are encouraged to submit their online application form and other documents well in advance of stated deadlines. (See ualr.edu/gradschool for application information.) Students may enter the graduate certificates, MACC, MBA, or MS in BIS program in any semester.

International Students

International students must present a score of 550 or more on the paper-based Test of English as a Foreign Language (TOEFL), 213 or more on the computer-based version, or 79 or more on the Internet version.

Alternatively, international students may present a score of 6.5 or higher on the International English Language Testing System (IELTS).

Advising

Students entering graduate business programs should meet with their graduate program coordinator to discuss program requirements, course sequencing and program policies.

Each semester, students must have their advising flags cleared prior to registering for the next term. To clear this advising flag, graduate students should contact their advisor. If you contact your advisor via email include your name, ID#, and a list of the courses you plan to take the next semester.

Electives

Students can count only one directed independent study course as an elective. No graduate business program currently requires a thesis for graduation. Students planning to enter a doctoral program are encouraged to enroll in an independent study course to acquire experience in academic research techniques.

While electives are generally graduate business courses, graduate business students may take up to six elective hours in other UALR graduate programs. Approval of your advisor is required for electives taken outside the COB. Foundation courses may not be taken as electives. Courses eligible for credit as electives are so designated in the course description.

Students simultaneously enrolled in the MBA and a certificate must meet the admission standards for both the MBA and certificate program.

Transfer Credits

A maximum of six hours of course work may be transferred from other AACSB accredited programs to satisfy the course requirements in the MACC, MBA, or MS in BIS. Transfer credit must be no more than five years old and must have a letter grade of B or greater. Transfer credits cannot be used to waive program requirements for the Graduate Certificate programs.

Enrolling in Concurrent Programs

Applicants for the concurrent MBA-JD, MBA- PharmD, or MBA-MD programs must meet admission requirements for both programs. Once admitted to both programs, a student enters the joint program by filing a Declaration of Intent to Pursue a Concurrent Degree form. A student currently enrolled in one program may enter the concurrent program by obtaining admission to the other program and by filing the form referred to above. A student who has already completed one of the degrees in a concurrent program cannot enroll as a concurrent student.

Concurrent enrollment in a COB Graduate Certificate program and the MBA program is permitted. Courses taken in fulfillment of the Graduate Certificate can be used as MBA electives. Concurrent MBA-Certificate students must meet the admission standards for both the MBA and certificate program.

Reenrolling in Graduate Business Programs

Former graduate business students, those students who have already graduated or who have become inactive, must reapply and meet current admission standards before returning for further graduate business studies.

UALR COB graduates returning for a second master's degree must complete at least 30 additional credits to receive a second degree.

Transient Students

Students admitted to the Graduate School in transient status may enroll for a maximum of six semester hours for transfer back to his or her original institution. To be enrolled with transient status, students must meet UALR admission standards and provide a letter of good standing from their current school.

Undergraduate Students in Graduate Business Courses

UALR seniors who are within 15 semester hours of completing baccalaureate degrees with a 3.0 GPA or higher and have a GMAT of at least 480 may enroll for a maximum of 6 semester hours of graduate business courses during their last undergraduate semester. However, if these graduate business courses are applied towards undergraduate degree requirements they cannot also be counted towards graduate degree requirements.

Graduation Requirements

Students must complete all required courses and earn an overall GPA of 3.0 or higher to graduate. Students failing to earn a 3.0 GPA after completing all required courses may enroll in a maximum of six additional semester hours to attain the required 3.0 GPA. A grade below a C provides no credit toward graduation, and the course must be repeated.

Students must complete an Application for Graduation early in their final term. This application is available in BOSS.

Time Limit

All degree requirements must be completed within six years of admission to the program.

Financial Assistance

A limited number of graduate assistantships are offered each year to qualified students. Graduate assistants are expected to work 20 hours per week in the College. Duties may include assisting with faculty research projects and/or providing support services in the Arkansas Small Business and Technology Development Center, the Institute for Economic Advancement, the COB computer labs, or the online programs. Applicants must be regularly admitted to a graduate program, maintain at least a 3.0 overall GPA, and enroll for at least nine graduate hours each semester. Applications for graduate assistantships must be submitted to the Associate Dean for Graduate Business Programs by April 1.

Definitions: An “attempt” is defined as either a full-term enrollment with a letter grade or Incomplete being posted or a partial-term enrollment that lasts beyond the drop deadline but ends with a withdrawal and a W being posted to the transcript. A “successful completion” is defined as a grade of B or greater in the course. If a student drops, withdraws, or requests an incomplete this will not be considered a successful completion.

Master of Accountancy

The Master of Accountancy program requires a minimum of 30 credit hours. Students holding an undergraduate degree in an area other than accounting will be required to complete the Accounting Foundation (see below) in addition to the 30 semester hours in the graduate program.

Admission Requirements

- To enter the graduate program you need a bachelor's degree in Accounting (or equivalent) from an accredited institution of higher education.
- Applicant must meet one of the following two admissions criteria:
 - 200 x overall GPA (based on a 4.0 point scale) + GMAT Score \geq 1020or
 - 200 x last 60 semester hours (or equivalent) + GMAT Score \geq 1080
- Regardless of the total points, the minimum acceptable GMAT Score is 420 and the minimum acceptable GPA is 2.75. GMAT scores used for admission must be taken within the past five years.
- The GMAT will be waived if one of the following two criteria is met:
 - Applicant has passed all parts (or levels) of a professional licensing exam in accounting, finance or law.or
 - Applicant has at least 5 years of senior-level professional experience in accounting or taxation. In this case, a resume and personal interview are required. The program coordinator will decide whether or not to waive the GMAT based on experience and that decision is final.

Accounting Foundation (24 hours)

Students with an undergraduate degree other than an accounting degree from an accredited university are required to complete the following accounting courses or equivalents before proceeding in the MACC courses:

- ACCT 3311 Intermediate Financial Accounting I
- ACCT 3312 Intermediate Financial Accounting II
- ACCT 3321 Federal Taxation I
- ACCT 3330 Intermediate Cost and Managerial Accounting I
- ACCT 3341 Accounting Information Systems
- ACCT 3361 Governmental/Not-for-Profit Accounting
- ACCT 4314 Advanced Financial Accounting
- ACCT 4351 Auditing I

Attempt Limit for Graduate Accounting Classes

Policy: Students are limited to a maximum of two attempts in each graduate accounting course.

Definition: An "attempt" is defined as either a full-term enrollment with a letter grade or Incomplete being posted or a partial-term enrollment that lasts beyond the drop deadline but ends with a withdrawal and a W being posted to the transcript. A "successful completion" is defined as a grade of B or greater in the course. If a student drops, withdraws, or requests an incomplete this will not be considered a successful completion.

Effective Date: This policy will be effective starting in fall semester 2009. Attempts prior to this effective date will not be counted in the application of this policy.

Right of Appeal: Students with extenuating circumstances may appeal the application of this policy to the department chair. If a waiver of the policy is granted for a particular course, the student must enroll in that class within 12 months of the date that the waiver was granted (or in the next term the course is offered if the course is not offered within the next 12 months) and successfully complete the course in that term.

Program Requirements

The Master of Accountancy (MACC) requires completion of the following 30 semester hours.

- Certain graduate business courses cannot be used to fulfill either the breadth or elective requirements in the MACC (e.g. MBA Foundation courses, ACCT 7304 or ACCT 7330.)
- Students may count a maximum of 6 credits at the 5000-level towards the Masters in Accountancy program requirements.
- If a student receives more than 2 grades of C or lower, he or she will be dropped from the program.

Core Courses (12 hours)

ACCT 7361 Auditing Theory and Practice II

ACCT 7362 Advanced Topics in Accounting Information Systems

ACCT 7363 Accounting Theory and Research

ACCT 7364 Advanced Topics in Managerial Accounting

Breadth Courses (12 hours)

Four (4) approved graduate accounting or taxation courses. Students may include one (1) approved graduate-level Finance course in their breadth courses.

Electives (6 hours)

Six (6) semesters hours from any approved graduate course.

Master of Business Administration (MBA)

Admission Requirements

UALR MBA candidates must possess strong academic preparation and strong aptitude for graduate study in business. Consequently, the admission requirements embody evidence of both prior academic achievement (GPA) and probability of successful performance in the MBA program (GMAT score). Deadline for application is thirty (30) days prior to the beginning of the term for which admission is sought.

Students seeking admission to the MBA program must meet one of the following criteria:

- $(200 \times \text{cumulative GPA}) + \text{GMAT score} = \text{greater than or equal to } 1020$

or

- $(200 \times \text{GPA in last 60 semester hours}) + \text{GMAT score} = \text{greater than or equal to } 1080$

Regardless of the total points, the minimum acceptable GPA is 2.5 and the minimum acceptable GMAT score is 420. Applicants with a GPA less than 2.5 or a GMAT score less than 420 will not be accepted. GMAT scores used for admission must be taken within the past five years.

Waiver of GMAT Requirement: The MBA program coordinator may waive the GMAT requirement for applicants who hold a graduate degree or who are currently enrolled in a graduate or professional degree program with equivalent admission standards.

Conditional Admission

In a limited number of cases, MBA applicants who do not meet the criteria for full admission may be admitted conditionally. Decisions concerning conditional admissions will be made by the College of Business Graduate Committee (or a subcommittee thereof). Factors considered in requests for conditional admission will include the following: scores on other standardized exams, grades in the undergraduate major, or other pertinent data that indicate the applicant will perform satisfactorily in the MBA program. Students conditionally admitted to the MBA program must achieve a 3.25 GPA in the first 12 hours of study or they will be dismissed.

Program Requirements

The MBA program consists of a minimum of 32 credit hours (14 core courses) and a maximum of 36 credit hours (14 core courses plus three foundation courses and one career management course). Students who can demonstrate background preparation in accounting, economics, and finance through passage of online assessments in these areas will not be required to take the foundation course(s) (three courses, one credit hour each). Students are not required to take the assessments before entering the program; instead, students may choose to take a one credit hour course in any or all three areas. However, students must be able to earn a passing score on the assessment in an area before registering for the core course in that area. (For example, students must pass the accounting assessment before registering for ACCT 7304 even if they choose to take ACCT 7100.)

All students must demonstrate competency in the use of Excel spreadsheets through the passage of an online assessment. Students with less than three years of professional experience (as determined by the associate dean for graduate studies) will be required to take a one credit hour course on career management. Students with three or more years of professional experience may choose to take the career management course.

Information on the assessments and self-paced study modules to prepare for the assessments may be obtained from the Graduate Business office (501-569-3356).

Foundation Courses (3 credit hours)

Course	Credit Hours
ACCT 7100 Accounting Methods & Reports	1
ECON 7100 Foundations of Business	1
FINC 7100 Finance Fundamentals	1
Note: Any or all foundation courses will be waived if the student passes assessments in the area(s).	
Core Courses (33 credit hours)	
ACCT 7304 Accounting for Managers	3
BSAD 7100 Managing Your Career	1
ECON 7200 Applied Problem Solving	2
ECON 7313 Managerial Economics	3
FINC 7311 Applied Corporate Finance	3
MGMT 7101 Developing Leadership Skills I	1
MGMT 7102 Developing Leadership Skills II	1
MGMT 7180 Strategy for Competitive Advantage I	1
MGMT 7210 Operations and Supply Chain Management	2
MGMT 7280 Strategy for Competitive Advantage II	2
BINS 7250 Strategic Management of Information Systems	2
MGMT 7310 Management of Human Capital	3
MKTG 7311 Marketing for Profit & Growth	3
Electives	6

Note: BSAD 7100 will be waived for students with three or more years of professional experience. This course is optional for students with three or more years of professional experience.

Graduation Requirements

- Students must complete all required courses and earn an overall GPA of 3.0 or higher to graduate.
- Students failing to earn a 3.0 GPA after completing all required courses may enroll in a maximum of six additional semester hours to attain the required 3.0 GPA. A grade below a C provides no credit toward graduation, and the course must be repeated.
- All degree requirements must be completed within six years of admission to the program.

No graduate business program currently requires a thesis for graduation. Students planning to enter a doctoral program are encouraged to enroll in a directed research course to acquire experience in academic research techniques.

Concurrent MBA Programs

Concurrent MBA - JD

I. Curricular Requirements for Concurrent MBA - JD

A student at the University of Arkansas at Little Rock may pursue the JD and MBA degrees under a concurrent degree program, which allows cross-credit for certain specified courses. The concurrent degree program offers a potential savings of 12 credit hours in the total credit hours otherwise required for both degrees. A student in the concurrent degree program must complete all requirements for the JD degree, as specified by the School of Law, and all requirements for the MBA as specified by the College of Business.

The concurrent degree program is subject to the following conditions:

1. To receive cross-credit, credit must be earned for the course in the degree program in which the course is offered. For instance, core courses in the MBA program listed in Number 4 below will receive credit in the JD program only if the student receives credit for the courses in the MBA program.

2. In the MBA program, a student may receive elective credits for six semester hours of approved courses in the JD program, completed with a minimum grade of C. A list of the approved JD courses is set out in Section II.
3. In the JD program, a student may receive elective credits for six semester hours of approved courses in the MBA program, completed with a minimum grade of C. A list of courses is set out in Section III.
4. In the JD program, a student must complete the following courses in addition to those otherwise required for the JD degree: Business Associations, Commercial Paper, Sales Transactions, Federal Income Taxation, and at least one advanced tax course (e.g., Advanced Taxation, Corporate Taxation, Deferred Compensation, Estate and Gift Tax, Estate Planning, Partnership Taxation, State & Local Taxation, Tax Clinic, Tax Policy, or Business Planning). The student may choose up to six credit hours from the above courses for credit in the MBA program, subject to the conditions set out in number 3 above.

II. Administrative Policies and Procedures for Concurrent MBA - JD

A student enrolled in the concurrent degree program is subject to all administrative policies and procedures of each program during the period of enrollment in the concurrent degree program. In addition, the following policies and procedures apply to students in the concurrent degree program:

1. A student must obtain admission separately to the JD program and the MBA program. Once admitted to both programs, a student enters the concurrent degree program by filing a Declaration of Intent to Pursue Concurrent Degrees.
2. A student currently enrolled in one program may enter the concurrent degree program by obtaining admission to the other program and filing the Declaration of Intent to Pursue Concurrent Degrees. Credit toward the JD degree shall only be given for course work taken after the student has matriculated in the law school.
3. A student is not enrolled in the concurrent degree program until copies of the Declaration of Intent to Pursue Concurrent Degrees are filed with the Registrar of the School of Law and with the Associate Dean for Graduate Studies of the College of Business.
4. A student who has completed one degree may not thereafter enter the concurrent degree program to complete another degree.
5. A student who enters the concurrent degree program must select which program to pursue first and notify the other program in order that enrollment may be deferred. Concurrent degree enrollment in classes in both programs is normally permitted only when a student is within six credit hours of completion of the first degree. Earlier concurrent degree enrollment requires the written permission of the Associate Dean for Academic Affairs of the School of Law and the Associate Dean for Graduate Studies of the College of Business.
6. The total credit hour load in both programs for concurrently enrolled students shall not exceed the normal maximum load in either program without the approval of the Associate Dean for Academic Affairs of the School of Law and the Associate Dean for Graduate Studies of the College of Business. Under no circumstances will concurrent degree enrollment be permitted during the first year of the JD program.
7. Grade point averages and class standings in each program are determined without consideration of the six hours of credits accepted from the other program.
8. Except as modified by Sections I and II of this statement of the concurrent degree program for JD and MBA degrees, a student must comply with all degree requirements established for each program. For instance, the School of Law has a requirement that all degree requirements be completed not more than six years after enrollment at the School of Law. A student enrolled in the concurrent degree program must earn any credit hours in the MBA program to be applied to the JD degree within six years of enrolling in the School of Law.

III. MBA Courses approved for JD Program

The following courses offered by the College of Business may be used for elective credit in the JD program:

ACCT 7302, ACCT 7304, ACCT 7305, ACCT 7360, ACCT 7365, ACCT 5366 (formerly ACCT 7366), ACCT 5323 (formerly ACCT 7367), ECON 7300, ECON 7313, FINC 7301, FINC 7311, FINC 7320, FINC 7330, FINC 7340, FINC 7350, MGMT 7340, and MGMT 7341.

Concurrent COB - UAMS Programs (MBA- PharmD or MBA-MD)

Students enrolling in either the MBA-PharmD or MBA-MD programs will be permitted to count two relevant courses from their UAMS programs as MBA electives. Likewise, two MBA courses will be counted towards their PharmD or MD elective requirements.

Master of Science in Business Information Systems (MS-BIS)

Admission Requirements

Students must possess a bachelor's degree and meet or exceed the indicated requirement on either of the following formula:

- $200 \times \text{overall UG GPA} + \text{GMAT} = \text{greater than } 1020$
- or
- $200 \times \text{last 60 hours UG GPA} + \text{GMAT} = \text{greater than } 1080$

In all cases:

- Regardless of the total points, the minimum acceptable GPA: 2.5; minimum GMAT: 420.
- GRE will be accepted using the GMAT equivalents as established by ETS using most current GRE/GMAT comparison tool available. GMAT or GRE scores used for admission must be taken within the past five years. (REFERENCE: www.ets.org/gre/2008/9934/tool.html)

Exceptions:

- Passage of select rigorous professional certification exams such as the Project Management Professional, MCSE and CCDA exams. In this case a résumé and personal interview required. Decision of Business Information Systems Department Admission Committee and/or Program Coordinator is final.
- or
- At least 5 years of substantial relevant professional experience. In this case a résumé and personal interview required. Decision of Business Information Systems Department Admission Committee and/or Program Coordinator is final.

Program Requirements

Competency in Object-Oriented programming (BINS 4312), which can be met with prior course work or experience.

Foundation Courses (4 graduate credits which may be waived with prior undergraduate course work)

Graduate Courses

BINS 7305 Advanced Data Management Systems

ACCT 7100 Accounting Methods and Reports OR

BINS 7307 Systems Analysis and Design Methods

BINS 7303 Systems Development and Database Design

BINS 7308 Advanced Business Communications

Undergraduate Equivalents

MGMT 7312 Team Development

ACCT 2310 Principles of Accounting I and

BINS 7350 Information Systems Management

ACCT 2330 Principles of Accounting II

BINS 7352 Emerging Technologies and Strategic Issues

BINS 3307 Systems Dev Methodologies and

BINS 7353 Project Management (Capstone Course to be taken at the end of program.)

BINS 4350 Business Data Mgmt Systems

Electives (6 credits)

Required Core Courses (33 graduate credits)

6 semester hours of approved electives including:

ACCT 7330 Managerial Accounting for Information Systems Specialists

MGMT 7310 Management of Human Capital OR

BINS 7304 Integrated Business Applications for Decision Making

MGMT 7313 Commercializing Innovations

Accountancy and Taxation Graduate Certificates

The graduate certificate programs in Accountancy and in Taxation (ACCT-GC and TAXN-GC) each consists of 12 graduate credits. The ACCT-GC is designed for accountants seeking to expand their professional knowledge and/or meet the academic requirements to sit for the Uniform CPA Exam. The TAXN-GC is designed for either accountants or attorneys. Courses taken in these programs may be used to fulfill Continuing Professional (or Legal) Education requirements. Credits earned in these certificate programs may also be applied towards the MACC or MST. Students interested in these certificate programs should contact the Accounting Department at (501) 569-3351.

Admission Requirements

- A bachelor's degree in Accounting (or equivalent) from an accredited institution of higher education.
- Applicants must meet one of the following admissions criteria:
 - Overall GPA (based on 4.0-point scale) greater than or equal to 2.80,
 - GPA in last 60 semester hours (or equivalent) greater than or equal to 3.00, or
 - GPA in last 30 semester hours (or equivalent) greater than or equal to 3.20.

Courses taken in fulfillment of a graduate certificate in Accountancy may be used as MBA or MACC electives. Concurrent enrollment in the graduate certificate and the MBA or MACC programs is permitted. Certificate students who are not concurrently enrolled in the MBA or MACC programs are limited to the courses in their respective certificate programs. Also, concurrent enrollment in a master's program requires meeting all admission standards in said master's program.

Graduate Certificate in Accountancy

Program Requirements

Required Core Course (3 credits)

ACCT 7363 Accounting Theory and Research

Elective Courses (Select 9 credits)

ACCT 7320 Tax Planning for Business Decisions

ACCT 7340 International Accounting

ACCT 7355 Research in Federal Taxation

ACCT 7356 Federal Corporate Taxation

ACCT 7360 Taxation of Pass-Through Entities

ACCT 7361 Advanced Topics in Auditing

ACCT 7362 Advanced Topics in Accounting Information Systems

ACCT 7364 Advanced Topics in Managerial Accounting

ACCT 7365 State and Local Taxation

ACCT 7368 Advanced Governmental and Not-for-Profit Accounting

ACCT 7369 International Taxation

ACCT 7370 Estate and Gift Taxation

ACCT 7371 Federal Tax Accounting

ACCT 7372 Federal Tax Practice and Procedure

ACCT 7199, 7299, or 7399 Independent Study

ACCT 8300 Seminar in Current Topics

Graduate Certificate in Taxation

Program Requirements

Required Core Course (3 credits)

ACCT 7355 Research in Federal Taxation

Note: Students with prior credit for ACCT 4323 Federal Research in Taxation will substitute an additional tax elective.

Elective Courses (Select 9 credits)

ACCT 7320 Tax Planning for Business Decisions

ACCT 7356 Federal Corporate Taxation

ACCT 7360 Taxation of Pass-Through Entities

ACCT 7365 State and Local Taxation

ACCT 7369 International Taxation

ACCT 7370 Estate and Gift Taxation

ACCT 7371 Federal Tax Accounting

ACCT 7372 Federal Tax Practice and Procedure

ACCT 7199, 7299, or 7399 Independent Study (Tax Topics Only)

ACCT 8300 Seminar in Current Topics (Tax Topics Only)

Management and Business Information Systems Graduate Certificates

Admission Requirements

Applicants must possess a bachelor's degree with either an overall GPA of at least 2.8, a 3.0 in the last 60 hours, or a 3.2 in the last 30 hours.

Exceptions:

- Passage of select rigorous professional certification exams such as the Project Management Professional, MCSE, and MCSD exams. In this case, a résumé and personal interview required. Decision of the Management or Business Information Systems Department Admission Committee and/or program coordinator is final.
- At least 5 years of substantial relevant professional experience. In this case, a résumé and personal interview required. Decision of the Management or Business Information Systems Department Admission Committee and/or program coordinator is final.

Graduate Certificate in Management

Program Requirements

The graduate certificate in Management consists of 12 hours of course work from the following courses:

Required Core Courses (6 hours)

MGMT 7310 Management of Human Capital

MGMT 7341 Strategic Human Resource Management

Elective Courses (6 hours)

BINS 7308 Advanced Business Communication

MGMT 7311 Entrepreneurship and Small Enterprise Management

MGMT 7312 Team Development

MGMT 7313 Commercializing Innovations

MGMT 7335 International Management

MGMT 7371 Production/Operations Management

MGMT 7398 Seminar in Special Topics

One 5000-level course

Graduate Certificate in Business Information Systems

Program Requirements

The graduate certificate in Business Information Systems consists of 12 hours of course work in the following courses.

Two Courses from the Following Technical Courses (6 hours)

BINS 5351 Data Analysis and Reporting

BINS 7303 Systems Development and Database Design OR BINS 5350 Database Management Systems

BINS 7304 Integrated Business Applications for Decision Making

BINS 7305 Advanced Database Management Systems

BINS 7307 Systems Analysis and Design Methods

BINS 5310 Network Technologies

Two Courses from the Following Managerial Courses (6 hours)

BINS 7308 Advanced Business Communication

MGMT 7310 Management of Human Capital OR MGMT 7313 Commercializing Innovations

MGMT 7312 Team Development

BINS 7350 Information Systems Management OR MGMT 7101 Developing Leadership Skills I AND MGMT 7250 Strategic Management of Information Systems and Technology

BINS 7352 Emerging Technologies and Strategic Issues

Courses in Accounting

ACCT 5381 Legal, Regulatory and Ethical Environment for Accountants

Prerequisite: MKTG 2380 - Legal Environment of Business (or equivalent) with a grade of C or greater. A comprehensive overview of business law and ethics topics, such as the Uniform Commercial Code, accountant's liability, government regulation of business, agency, contracts, debtor-creditor relationships, real property, insurance, and other topics covered in the CPA exam. This course is open to all graduate business students, but is not open to students with credit for ACCT 4381.

ACCT 7100 Accounting Methods and Reports

Uses of accounting data are taught in this course. The topics covered include financial statements, mechanics of recording, theory, working capital, property and plant, long term debt, owner's equity, costing of products, control of costs, and non-routine decisions. This is a Foundation-Level course that cannot be used as an elective in any graduate business program. Open only to students in the MBA program and the MS in BIS program.

ACCT 7302 Accounting Methods and Reports

Uses of accounting data are taught in this course. The topics covered include financial statements, mechanics of recording, theory, working capital, property and plant, long term debt, owners; equity, costing of products, control of costs, and nonroutine decisions. The curriculum includes case studies to illustrate application of accounting principles and procedures to the decision process. This is a Foundation-Level course that cannot be used as an elective in any graduate business program. Open only to students in the MBA program and the MS in BIS program.

ACCT 7304 Accounting for Managerial Decision-Making

Prerequisite: Principles of Accounting I and II (ACCT 2310 and 2330) or ACCT 7100 and passing score on accounting assessment. Course Description: This course provides an overview of financial and managerial accounting as well as an introduction to tax planning. The emphasis will be on how various events and transactions in the life cycle of a business affect the basic accounting equation so that the manager can identify the important accounting issues. The course will look at choice of entity, accrual accounting issues, financial statement analysis and differences between U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). In regard to tax planning, this course is intended to fill the gap between a manager well-trained in finance but unfamiliar with taxes and the tax experts on which the manager will rely. This course will examine the structure of tax codes (state and federal) and how taxes influence the finance decisions the manager will be expected to make (e.g. investments, choice of entity, capital structure, like-kind exchanges, mergers and acquisitions, timing of transactions, etc.).

ACCT 7305 Analysis of Financial Statements

Prerequisite: ACCT 7304 with a grade of B or greater. User-oriented analysis of the operating performance of an organization based upon accounting information and related financial statements; emphasizes comparative profitability, liquidity, and operating performance measures; examines statistical techniques and electronic spreadsheets used to analyze and manipulate data. Open to students in the MBA program. This course cannot be applied to the Graduate Certificates in Accountancy or Taxation, or the MACC.

ACCT 7320 Tax Planning for Business Decisions

Prerequisites: ACCT 3321 with a grade of C or greater. Impact of federal tax laws, regulations on a variety of business decision areas; opportunities for tax planning in those areas. This course is open to all graduate business students.

ACCT 7330 Managerial Accounting for Information Systems Specialists

Principles of Accounting I and II (ACCT 2310 and 2330) or ACCT 7100 and passing score on accounting assessment. Application and use of accounting information for managerial decision making in the information technology environment; major topics include cost accumulation systems, cost management systems, planning and control systems, and the use of accounting information in decision making. This course cannot be applied against the graduate programs in taxation or accountancy.

ACCT 7340 International Accounting

Prerequisites: ACCT 3311 and ACCT 3312, each with a grade of C or greater. This course examines international financial reporting developments, procedures, and standards (IFRs) with an emphasis on financial statement interpretation and analysis. Specific attention is given to the financial reporting requirements of multinational enterprises operating in a global business environment. Open only to MBA students and students in the graduate accounting and taxation programs.

ACCT 7355 Research in Federal Taxation

Prerequisite: ACCT 3321 - Federal Taxation with a grade of C or greater. Methods and tools of tax research as applied to both closed fact and controllable fact cases. Methods of locating and assessing relevant authority on specific tax questions is emphasized. This course is open to all graduate business students, but it cannot be taken by students with credit for ACCT 4323, ACCT 5323, or ACCT 7367.

ACCT 7356 Federal Corporate Taxation

Prerequisite: ACCT 3321 (or equivalent); and ACCT 4323 each with a grade of C or greater or ACCT 7355 with a grade of B or greater. Concurrent enrollment in ACCT 7355 is permitted. Study of federal income taxation provisions affecting the formation, operation, liquidation, acquisition, and reorganization of Subchapter C corporations. There will be an emphasis on research and tax planning. This course is open to all graduate students, but can not be taken by students who have taken ACCT 4322.

ACCT 7360 Taxation of Pass-Through Entities

Prerequisite: ACCT 7355 with a grade of B or greater or ACCT 4323 with a grade of C or greater. Concurrent enrollment in ACCT 7355 is permitted. Study of small business entities, emphasis on partnerships, limited liability companies, and S corporations; includes choice, formation, and operation of above and distributions, sales, and exchanges of ownership in interests, and transfers by death. Emphasis on research and tax planning. Open only to MBA students and students in the graduate accounting and taxation programs.

ACCT 7361 Advanced Topics in Auditing

Prerequisites: ACCT 3341, 4351, or their equivalent, each with a grade of C or greater. The expansion of the auditing function, including internal auditing, operational auditing, auditing EDP systems, and statistical sampling. SEC requirements, legal and ethical responsibilities, comprehensive review of auditing, and application of accounting research skills. This course is open to MBA students and students in the graduate accounting and taxation programs. It is not open to students with credit for ACCT 5352.

ACCT 7362 Advanced Topics in Accounting Information Systems

Prerequisite: ACCT 3341 and 4351 (or equivalents) each with a grade of C or greater. Accounting systems in a database environment; structured systems analysis and other approaches to systems analysis and design; current developments in computerized systems technology; risks and controls in computerized information systems; application of accounting research skills. Open only to MBA students and to students enrolled in graduate accounting and taxation programs.

ACCT 7363 Accounting Theory and Research:

ACCT 4351 (or equivalent) with a C or greater. Undergraduate degree in accounting or equivalent. Investigation of the development of accounting theory. Focuses on the nature and development of accounting theory and its relation to the standard setting process. The relationship of accounting theory to the resolution of current issues is examined. Emphasis on accounting research. This course is open to students in all graduate business programs.

ACCT 7364 Advanced Topics in Managerial Accounting

Prerequisite: ACCT 3330 and 3341 (or equivalents) with a grade of C or greater. Continuation of managerial accounting. Use of accounting information for planning and control, profit planning and control, cost/volume/profit and incremental analysis, capital budgeting, responsibility reporting and performance evaluation, transfer pricing, quantitative models, and decision simulation. Application of accounting research skills. Open only to MBA students and students in the graduate accounting and taxation programs.

ACCT 7365 State and Local Taxation

Prerequisite: ACCT 7355 with a grade of B or greater or ACCT 4323 with a grade of C or greater. Concurrent enrollment in ACCT 7355 is permitted. The constitutional, statutory, regulatory, and judicial principles affecting state and local taxation of business transactions, with emphasis on Arkansas taxation. Emphasis on research and tax planning. Open only to MBA students and students in the graduate accounting and taxation programs.

ACCT 7368 Advanced Governmental and Not-for-Profit Accounting

Prerequisite: ACCT 3361 with a grade of C or greater. This course involves the advanced study of accountability, financial reporting and performance measurement in government and not-for-profit organizations. Accounting principles, rules and procedures are also examined to develop an understanding of the day to day operating activities of government and not-for-profit organizations. Open only to MBA students and students in graduate accounting and taxation programs.

ACCT 7369 International Taxation

Prerequisite: 7355 with a B or greater or ACCT 4323 with a C or greater, and ACCT 4322 with a C or greater, or ACCT 7356 with a B or greater. Concurrent enrollment in ACCT 7355 is permitted. U.S. federal taxation of international transactions, e.g., "inbound" transactions (affecting nonresident aliens and foreign corporations) and "outbound" transactions (affecting U.S. persons, business, and investment activities outside the U.S.). Topics include jurisdiction, source of income rules, residency tests, transfer pricing, and tax treaties. In connection with "inbound" transactions, the course will address U.S. taxation of investments, business, U.S. real property investments; and branch profits tax. As to "outbound" transactions, the course will include the foreign tax credit; controlled foreign corporations, foreign currency issues; and other cross-border transactions. Open to MBA students and students in graduate accounting and taxation programs.

ACCT 7370 Estate and Gift Taxation

Prerequisite: ACCT 7355 with a grade of B or greater or ACCT 4323 with a grade of C or greater. Concurrent enrollment in ACCT 7355 is permitted. Federal tax implications of wealth transfers as it relates to estate planning, including a review of the alternative ways to hold and to transfer property, during life, at death, or after death; the use of legal devices; acceptance and rejection of gifts; property valuation; generation skipping tax; and the estate tax return. Open only to MBA students and students in the graduate accounting and taxation programs.

ACCT 7371 Federal Tax Accounting

Prerequisite: ACCT 7367 or 5323 or 7355 with a grade of B or greater or ACCT 4323 with a grade of C or greater. Concurrent enrollment in ACCT 7355 is permitted. Adoption of changes in accounting periods and methods; income recognition and deduction allowances in connection with cash and accrual methods, interest; OID, time value of money, deferred payments, installment sales, prepaid and contested items, reversals, capitalization, amortization, and depreciation; inventory accounting; accounting for long term contracts; carryovers; claim of right; tax benefits; conformity between tax and financial reporting. Open only to MBA students and students in the graduate accounting and taxation programs.

ACCT 7372 Federal Tax Practice and Procedure

Prerequisite: ACCT 7367 or 5323 or 7355 with a grade of B or greater or ACCT 4323 with a grade of C or greater. Concurrent enrollment in ACCT 7355 is allowed. To gain a general knowledge about the IRS's organization and the procedures used to administer the Internal Revenue Code, including the rules of practice before the IRS, ethical considerations, statute of limitations, examinations, penalties, appeals, assessments, collections, claims for refund, and some of the basic rules concerning criminal tax fraud. Open only to MBA students and students in graduate accounting and taxation programs.

ACCT 7373 Forensic Acct & Fraud Audit

Prerequisite: ACCT 4351 or equivalent. Understanding the types of fraud taking place in today's business environment; recognition of more than 800 red flags, characteristics and risk factors of occupational fraud; and discussion of techniques needed to build effective fraud prevention and detection measures into an audit plan.

ACCT 7199, 7299, & 7399 Independent Study

Prerequisites: A GPA of at least 3.0, at least 12 graduate credits, and consent of department. Intensive research under faculty supervision on approved topic in an area not covered in depth through regularly scheduled courses; research paper required. Open only to students in graduate accounting and taxation programs.

ACCT 8300 Seminar in Current Topics

Prerequisite: ACCT 4351 with a grade of C or greater, ACCT 5323 with a grade of B or greater, or consent of Department Chair. Topics of current importance and interest in accounting. Open to MBA students and to students in the graduate accounting and taxation programs.

Courses in Business Administration

BSAD 7100 Managing Your Career

Course Description: MBA Core Course. Empowers students with the knowledge and tools to effectively manage their own careers. The course offers career development and placement support to help students identify their ideal career based on interests, motivational traits, personality, values, abilities, aptitudes, personal work style, and work environment preferences. Addresses career related concerns such as: exploring career options, building and leveraging a professional network, developing a personal marketing plan, job-search and transition skills, behavioral interviewing, job and company-specific research, business etiquette, and offer negotiation.

BSAD 7395 Cooperative Education

MBA Electives Prerequisite: all MBA foundation courses, 12 credits of MBA core courses and consent of the graduate program director. Designed to complement and extend the classroom learning experiences through the application of theories and concepts in a professional work environment. A deliverable project, designed in consultation with a faculty member, and a minimum of 200 hours with a participating employer during the semester are required.

Courses in Business Information Systems

BINS 5310 Network Technologies Local

MBA or MS in BIS Elective. A study of the role of telecommunications in information resource management, with emphasis on business applications in a network environment. Principles of network and installation, system component selection, administration, security, and control. This course is not open to students with credit for MGMT 4310 or BINS 4310.

BINS 5350 Business Database Management Systems

MBA Elective, MS in BIS prerequisite course. Does not apply toward MS in BIS Core requirements. Addresses the concepts and principles underlying the design and application of relational graphics based data modeling, relational algebra, the database language SQL, database design, and normalization theory. Projects, which typically are implemented using a current commercial database management system software, are assigned to reinforce most of the concepts taught in the course. This course is not open to students with credit for MGMT 4350 or BINS 4350.

BINS 5351 Data Analysis and Reporting

Prerequisite: C or better in MGMT/BINS 4350/5350 or equivalent or consent of instructor. Students will gain practical experience in using advanced database techniques and data visualization, data warehousing, reporting, and other Business Intelligence (BI) tools. Contemporary BI tools and technologies will be used to create intelligent solutions to realistic business problems. Students with credit for BINS 4351 may not take BINS 5351 for additional credit.

BINS 7250 Strategic Mgmt of IS & Tech

Prerequisite: ACCT 7304, ECON 7313 and MGMT 7180. Focus on strategic and operational roles of information systems and technology (IS) and other information resources, including their applications, value-adding processes, sourcing, governance, organizational and strategic alignment as well as limitations. Management of the IS asset portfolio using a risk/reward framework considering life cycle, obsolescence, innovation, and strategic impact.

BINS 7303 Systems Development and Database Design

MS in BIS Foundation Core Course. The course is a survey of information system development. It will provide students with non-IS backgrounds with foundation knowledge and skills in information systems development. The course overviews the process of system development using SDLC (system development life cycles) with an emphasis on database development. Three credit hours.

BINS 7304 Business Applications for Decision Making

An exploration of the integration of business application technologies and procedures, such as cloud computing, business intelligence, mobile applications, and security being leveraged by corporations.

BINS 7305 Advanced Database Management Systems

MS in BIS Core Course or MBA Elective. Prerequisites: MGMT 4350/5350, BINS 4350/5350, or equivalent. Advanced concepts in database management, expanding from the relational data model to the multidimensional model, object-relational techniques, and web accessed data.

BINS 7307 Systems Analysis and Design Methods

MS in BIS Core Course. MBA Elective. Prerequisite: MGMT 3307, BINS 3307, or equivalent. Application of system analysis and design methodology with emphasis on Object-Oriented (OO) methodologies. Includes basic concepts, modeling techniques, and tools for systems analysis and design.

BINS 7309 Cloud-Based Business Intelligence

Students will experience a hands-on exploration of cloud-based business intelligence tools, technologies, and procedures being leveraged by corporations.

BINS 7315 E-Commerce Technologies

MBA or MS in BIS Elective. An overview of e-commerce technologies, including analysis of e-commerce infrastructure, technology, and managerial and implementation strategies. Focus on web development.

BINS 7350 Information Systems Management

MBA and MS in BIS Core Course. The strategic perspective for aligning competitive strategy, core competencies, and information systems. Development, implementation, and management of information systems that support the operational, administrative, and strategic needs of the organization, its business units, and individual employees.

BINS 7351 Management Information Systems: Theory and Application

MBA or MS in BIS Elective. Information flow between various decision points in functional areas of a variety of organizations; develops understanding of routine information flow, how it can be made more effective and efficient in terms of handling, processing, refining, dissemination; uses executive and systems design perspectives; reviews and uses real systems in local government and business organizations.

BINS 7352 Emerging Technologies and Strategic Issues

MS in BIS Core Course. MBA Elective. Prerequisite: BINS 7350 or equivalent. In-depth examination of the strategic use and development of an integrated technical architecture (hardware, software, networks, and data) to serve organizational needs in a rapidly changing competitive and technological environment. Strategic use of technologies for intra- and inter-organizational systems.

BINS 7353 Project Management

Prerequisites: BINS 7304, 7305, 7308, 7312, 7350, and completion of or concurrent enrollment in ACCT 7330. MS in BIS Core Course. Capstone course to be taken at the end of the program. A study and application of project management techniques through the development and implementation of an application development project. Includes all stages of the project development life cycle, with focus on enterprise application integration.

BINS 7370 Issues in Manufacturing and Operations Management

MBA or MS in BIS Elective. Prerequisite: All Core courses. Concerns of manufacturing, service management; includes product and process design, plant capacity and location, work force development, scheduling, inventory control, product and service improvement, vendor relations; emphasis on resource and functional integration, information systems use, team solutions, global marketplace competition strategies; decision-making tools such as forecasting, queuing theory, simulation, network analysis.

BINS 7371 Production/Operations Management

MBA or MS in BIS Elective. Prerequisite: ECON 7320 or ECON 7313, or equivalent. A study of traditional ideas and techniques of production/operations management as well as contemporary practices and concepts being employed by businesses. In this course, the term "production" refers to the conversion of labor hours, dollars, materials, and skills (inputs) into products or services.

Courses in Economics**ECON 5350 Applied Econometrics**

Prerequisites: ECON 7320 or equivalent. This course will introduce students to the skills used in empirical research, including, but not limited to, data collection, model specification, regression analysis, violations of regression assumptions and corrections, indicator variables, linear restrictions tests, and limited dependent variable models. The course will focus on the intuition and application of econometric methods, and statistical software will be used extensively. Students will be required to complete an independent research project involving the application of regression analysis.

ECON 7100 Foundations of Business

This course provides the foundations necessary for students planning to take more advanced MBA-level courses. This course covers two main topics. The first topic is the market, where we learn how to predict and explain behavior in the marketplace, explain the determination of prices, quantities, and allocation of resources, and calculate and explain elasticity measures. The second topic is the firm, where we learn how to explain and describe the economic costs and profit-maximizing decision-making for a firm.

ECON 7200 Applied Problem Solving

Prerequisite: Passing score on Excel assessment. This course teaches students the art of recognizing business problems and opportunities, understanding the decision process and the role that statistical tools play in analyzing, summarizing, and converting data into useful information for gaining insight and making sound business decisions. Emphasis is placed on using statistical tools and judgment to solve problems. This course prepares students with core knowledge that can be used for discipline-specific data analysis and decision making.

ECON 7300 Economic Principles

MBA Foundation Course. Theory of the individual firm in the economy; utility, demand theory, elasticity; cost and price determination, income distribution; macroeconomic analysis of income, employment, prices, business fluctuations, monetary system, elements of international trade.

ECON 7313 Economics and Global Business

Prerequisite: ECON 7100 or passing score on assessment. MBA Core Course or MS in BIS Elective. The use of economic analysis in managerial decision making. Microeconomic topics include information asymmetries relating to agency and adverse selection, the firm's horizontal and vertical structure, demand theory and estimation, market structure analysis, marginal analysis, game theory, and pricing policies. Macroeconomic topics include international trade and the effect of monetary and fiscal policies on the firm's macroeconomic environment.

ECON 7320 Quantitative Analysis

MBA Foundation Course. Introductory calculus and statistics with applications in business, including topics such as differential and integral calculus, descriptive statistics, probability theory, hypothesis testing, and regression analysis.

ECON 7322 Econometrics

MBA or MS in BIS Elective. Prerequisite: ECON 7321 or consent of instructor. Application of statistics, mathematics to economic problems; economic models formulation, measurement, verification, prediction.

ECON 7324 Environmental and Resource Economics for Managers

MBA or MS in BIS Elective. Prerequisite: ECON 7300; permission of instructor to permit non- MBA graduate students to enroll. This course presents the theoretical and applied aspects of resource use and environmental issues that are faced by managers in modern business settings. Economic efficiency is defined and explored and employed throughout the course as a means of approaching resource and environmental problems. Case examples of pollution problems and resource misuse are introduced as a means of understanding economic efficiency.

ECON 7330 Public Sector Economics

MBA or MS in BIS Elective. Prerequisite: ECON 7300 or consent of instructor. Theory of public goods, allocation techniques; welfare economics, welfare politics concepts and critique; revenue sources, equity considerations and impact; public sector budgeting; theory, concepts of fiscal federalism.

ECON 7399 Independent Study

MBA or MS in BIS Elective. Prerequisites: All Foundation courses, 12 credits of Core requirements, and consent of instructor. Intensive research under faculty supervision on an approved topic in an area not covered in depth through regularly scheduled courses; research paper required.

ECON 8300 Seminar in Current Topics

MBA or MS in BIS Elective. Prerequisite: Consent of instructor. Topics of current importance and interest in economics.

Courses in Finance

FINC 5320 Bank Financial Management

MBA Elective. Prerequisite: FINC 7100. Analysis and management of the asset and liability portfolio of depository financial institutions. Not open to students with credit for FINC 4320.

FINC 5383 Applied Equity Analysis

MBA Elective. Prerequisite: FINC 3350 for undergraduate or FINC 7320 for graduate credit, and consent of instructor. Using modern models of equity valuation, students analyze company and industry data, estimate fair value for equities, and then present their recommendations to a panel of industry experts. Once approved, the students' equity selections will then be implemented in the Ford Investment Trust. Students must apply to enroll in the course; check with the Department for application forms and deadlines. Enrollment is limited to 15 students, no more than 5 of whom may be graduate students.

FINC 7100 Finance Fundamentals

Prerequisite: ACCT 7100, passing score on Excel assessment. This course provides students with the essential skills required to successfully complete the FINC 7311 course. The course will cover financial statement and cashflow analysis, time value of money and its applications to both financial and real assets, and risk and rates of return.

FINC 7301 Financial Management

MBA Foundation Course. Prerequisites: ACCT 7302, ECON 7300, and ECON 7320 or equivalent. Financial resources management; emphasis on financial statement analysis, time value of money, valuation of financial assets, capital budgeting, cost of capital, capital asset pricing, capital structure and dividend policy.

FINC 7311 Applied Corporate Finance

Prerequisite: ACCT 7304, ECON 7313, FINC 7100 or pass assessment, ECON 7200, MGMT 7180 (may be taken concurrently). This course fully develops the analysis of financial statements and cash flow and then examines the investment and financing decisions are discussed in the context of information asymmetry, potential agency problems, and corporate governance. The course stresses the application of finance theory to real life business situations through the use of case studies.

FINC 7320 Advanced Investment Analysis

MBA or MS in BIS Elective. Prerequisite: FINC 7301 or equivalent. Evaluation of capital markets, analytical techniques useful for security analysis; emphasis on analysis of stocks, bonds in portfolio management.

FINC 7323 Bank Financial Management

Prerequisite: FINC 7301 or equivalent. Analysis and management of the asset and liability portfolio of depository financial institutions.

FINC 7325 Financing Entrepreneurial Ventures

MBA or MS in BIS Elective. Prerequisite: FINC 7100. Explores financing alternatives and concepts as they relate to new and growing ventures. Among the financing alternatives discussed are debt financing from banks, SBIC's and other asset based lenders, and equity financing from angel investors, private placements, venture capitalists, and private equity markets. Students are required to analyze financing needs and use firm valuation methods.

FINC 7330 Insurance and Risk Management

MBA or MS in BIS Elective. Prerequisite: FINC 7100 or equivalent. Nature of risk; risk management concept; relationship of risk management to business functions; insurance's nature, role as a risk management technique in business, personal affairs; includes property, liability, personal insurance lines.

FINC 7335 International Finance

MBA Elective. Prerequisite: FINC 7301 or equivalent. Multinational corporate finance; practices and problems in international finance; balance of payments and foreign exchange problems; recent trends and developments in international finance.

FINC 7340 Real Estate Markets

MBA or MS in BIS Elective. Real estate analysis; includes real estate typology, elements of real property law, basic contractual arrangements in real estate business, sources of financing, market-comparison valuation, government policies affecting real estate and local zoning, real estate taxation practices. (For business-oriented students with no real estate background).

FINC 7350 Financial Institutions and Organizations

MBA or MS in BIS Elective. Prerequisite: FINC 7100 or equivalent. Functions of financial intermediaries; assets, liabilities management analysis; historical highlights, future growth prospects; problems, solutions.

FINC 7399 Independent Study

MBA or MS in BIS Elective. Prerequisites: All Foundation courses, 12 credits of Core courses, and consent of instructor. Intensive research under faculty supervision on approved topic in an area not covered in depth through regularly scheduled courses; research paper required.

FINC 8300 Seminar in Current Topics

MBA or MS in BIS Elective. Prerequisite: Consent of instructor. Topics of current importance and interest in finance.

Courses in International Business

IBUS 5316 Field Study in International Business

Prerequisite: Completion of MBA Foundation courses or equivalent. This course includes an international trip which provides students an opportunity to explore firsthand the international dimensions of business, to identify and pursue strategic issues in businesses, and to gain an awareness of how cultural, economic, political, and legal environments influence business practices. Prior to travel, students study and prepare reports on the country to be visited, and upon return, prepare summaries of their experiences, comparing pre- and post-visit perceptions. This course has a fee for travel costs and host institution fees.

Courses in Management

MGMT 5365 Business Consulting

MBA or MS in BIS Elective. Prerequisites: MGMT 5361 or consent of instructor. Teams of students consult with local small businesses recommended by the Small Business Development Center. Students work on problems in accounting, production, marketing, personnel, finance, insurance, law, and information systems. Student teams write reports outlining the problems and recommended solutions. This course is not open to students with credit for MGMT 4365.

MGMT 5375 Sustainable Business

A cross-disciplinary course to introduce students to the emerging field of sustainability and its triple-bottom line focus on the social, environmental, and economic impacts of business. Dual-listed in the UALR Undergraduate Catalog as MGMT 4375. Three credit hours.

MGMT 5383 Issues in Entrepreneurship

MBA or MS in BIS Elective. A significant exposure to the entrepreneurial process. Interaction with real-world entrepreneurs will enhance the entrepreneurial decision-making abilities of the students. This course is not open to students with credit for MGMT 4383. Three credit hours.

MGMT 7101 Developing Leadership Skills I

MBA Core Course. Review of key managerial skills which include ethical decision-making, teamwork, oral presentations, influencing others, and critical thinking. The course conceptually introduces the skills and familiarizes participants with measures to be used in evaluating the development of skills throughout the MBA. Sporadic practice opportunities will be utilized to enhance understanding of skills and to assess the degree of skill development at the front end of the MBA. Results of assessments will be instrumental in designing action plans for skills development and in establishing a baseline to compare future assessments.

MGMT 7102 Developing Leadership Skills II

Prerequisite: MGMT 7101. Practice and development of key managerial skills, which include ethical decision-making, teamwork, oral presentation, influencing others, and critical thinking. This course emphasizes learning by experience; students will have opportunities to apply the skills in a variety of MBA courses. Feedback from a variety of sources (i.e., peers, instructors, self) will follow each practice opportunity. Students will be asked to reflect on feedbacks, design plans of actions that tackle performance deficiencies, and demonstrate quantifiable evidence of skill improvement in subsequent applications.

MGMT 7180 Strategy for Competitive Advantage I

Prerequisite concurrent: MGMT 7101. An introductory course that holistically integrates business disciplines in ways that promote analysis and decision making. The interdependent roles of all disciplines in the MBA program are examined, relative to analyzing business situations.

MGMT 7210 Operations and Supply Chain Management

Prerequisite: ECON 7200. This course addresses important concepts and issues related to the design and management of business operations including manufacturing, distribution, logistics, transportation, supply chain, and service operations. Frameworks for designing, managing, and analyzing the supply chain operations needed to support a firm's business strategy are introduced. The course links strategic and operational supply chain decisions for the student, forming a holistic view of business operations and the application of quantitative methods to address operational and supply chain issues.

MGMT 7280 Strategy for Competitive Advantage II

Prerequisite: MGMT 7180, MGMT 7210, MKTG 7311, FINC 7311 (prerequisite concurrent) and enrollment in last semester or progression to the last nine MBA program hours. This course develops a process for deriving business strategies, with emphasis on strategic concepts, techniques, and application to business planning and implementation to achieve competitive advantage.

MGMT 7302 Management and Organizational Behavior

MBA and MS in BIS Foundation Course. A study of the theories of management and the behavioral sciences, which are directly related to understanding, predicting, and influencing human behavior in organizations.

MGMT 7308 Advanced Business Communication

MS in BIS Core Course. MBA Elective. Analysis of communication issues in the global socio-technical environment. Assessment of organizational communication systems. Refinement of written and verbal communication competencies.

MGMT 7310 Management of Human Capital

MBA Core Course or MS in BIS Elective. Provides the foundations for managing people in organizations. It includes theories addressing the psychology of management (e.g., motivation, work attitudes) and a review of the human-resource processes (e.g., selection, training) that assist in maximizing human capital. Heavy emphasis is placed on the applied view of topics.

MGMT 7311 Entrepreneurship and Small Enterprise Management

MBA or MS in BIS Elective. Prerequisites: ACCT 7302, FINC 7310, MKTG 7300 or equivalent courses. Problems associated with entrepreneurship; emphasis on small enterprises, feasibility studies of new small enterprises.

MGMT 7312 Team Development

MS in BIS Core Course or MBA Elective. Organizational theory and principles of developing and managing teams.

MGMT 7313 Commercializing Innovations

Course Description: The students will work in teams to develop new products and formulate their pathway to market utilizing a business plan methodology. This course focuses upon innovation, multi-discipline integration, problem solving, and decision-making. The learning that occurs in this course is equally applicable in a startup venture as it is in a medium or large organization.

MGMT 7335 International Management

MBA or MS in BIS Elective. Introduction to international business; particular issues and problems associated with managing business operations in multinational enterprises; management responses to these problems.

MGMT 7340 Collective Bargaining

MBA or MS in BIS Elective. Aspects of labor-management relations; includes union organization, legal parameters, agreement negotiation, day-to-day administration of union-management agreement; emphasis on roles of industrial relations managers, line managers; extensive use of case studies.

MGMT 7341 Strategic Human Resource Management

MBA or MS in BIS Elective. This course examines human resource management (HRM) from a strategic proactive perspective. Students consider HRM functional activities from the perspective of competitive advantage and added value. Specific topics include globalization, the legal environment, recruitment, retention, performance appraisals, rewards, employee relations, and planning.

MGMT 7345 Employment Law for Managers

This course examines the laws that regulate the employment relationship with an emphasis on helping managers comply with this law. Topics include employment discrimination (age, religion, color, gender, national origin, race, disability), pre-employment inquiries and testing, seniority and promotions, affirmative action, sexual harassment, equal pay requirements, overtime and minimum wage rules, employee dismissal issues, worker safety and health, gay and lesbian work issues, employee privacy, time-off requirements, employment lawsuits, union issues, and whether someone is an employee or independent contractor. Legal cases are used extensively to increase student comprehension.

MGMT 7380 Corporate Strategy

MBA Core Course. Capstone course to be taken at the end of the program. Prerequisites: FINC 7311, and enrollment in last semester or in last nine program hours. Process for deriving corporate, business strategies; emphasis on strategy concepts, techniques, application to small, large private sector corporations, nonprofit organizations.

MGMT 7398 Seminar in Current Topics

MBA or MS in BIS Elective. Prerequisite: Consent of instructor. Topics of current importance, interest in management.

MGMT 7399 Independent Study

MBA or MS in BIS Elective. Prerequisites: All Foundation courses, 12 credits of Core requirements, and consent of instructor. Intensive research under faculty supervision on approved topic in area not covered in depth through regularly scheduled courses; research paper required.

Courses in Marketing

MKTG 7301 Marketing Analysis, Planning, and Control

MBA and MS in BIS Foundation Course. Prerequisite: graduate standing. Marketing principles, structure, framework from managerial perspective; role of basic marketing functions (price, product, distribution, promotion) in determination and implementation of strategy and other marketing decision-making activities; significance of legal and ethical precepts; increasing role of global marketing activities.

MKTG 7311 Marketing for Profit and Growth

Prerequisite: ECON 7313 and ACCT 7304. MBA Core Course or MS-BIS Elective. Proper evaluation of the actors and environmental forces within markets to formulate and execute effective local and global marketing strategies including business models, segmentation, target marketing, positioning, differentiation, branding, the marketing mix or 4 p's (price, product, place, promotion), integrated marketing communications, product management, and new product development. Course also includes the use of marketing metrics, development of marketing plans, and anticipating the effect of the business cycle on marketing efforts.

MKTG 7312 Markets Analysis

MBA or MS in BIS Elective. Prerequisite: ECON 7200. Prerequisite concurrent: MKTG 7311. Analysis of consumer and intermediate markets for purposes of developing marketing strategy; includes income and expenditure patterns, buying decision processes, buyer behaviors, and consumption patterns.

MKTG 7313 Marketing Research and Information Systems

MBA or MS in BIS Elective. Prerequisite: ECON 7200. Prerequisite concurrent: MKTG 7311. Research methods, application to marketing decision-making; includes problem definition, research design, sampling, data collection and analysis, research presentation.

MKTG 7314 Product Innovation

MBA or MS in BIS Elective. Prerequisite concurrent: MKTG 7311. Relationship between marketing, innovation, communications; builds on behavioral base for insights to product innovation, marketing communication process; behavioral, communication concepts for developing marketing communications programs.

MKTG 7316 Global Marketing

MBA or MS in BIS Elective. Prerequisite: All Core courses. Primary dimensions of the global marketing environment; introduction to international marketing research problems and approaches; planning for global marketing operations and managing the global marketing mix.

MKTG 7320 E-Commerce: Strategic Issues

MBA or MS in BIS Elective. Prerequisite concurrent: MKTG 7311 or equivalent. Survey of Web Activity. Business models and other frameworks for evaluating and creating business strategies involving electronic networks. Infrastructures and technology issues. Ethical and policy issues.

MKTG 7330 Services Marketing

MBA or BIS Elective. Examines the major differences between goods and services, as well as the problems associated with the differences. Strategic aspects of services marketing mix are discussed with emphasis on the delivery of high quality services and the management of service employees. The course is conducted in a seminar style and makes use of the case study method. Not open to students with credit for MKTG 4330 or MKTG 5330.

MKTG 7381 Law and Ethics in Business

MBA and MS in BIS elective. This course instructs the student in the foundations of law that constitute the framework for doing business in the United States. Specific fields of concentration include: constitutional principles, contract formation and remedies, tort and product liability property, environmental regulation, securities regulation, and government mandates. All topics will be explored with a focus on ethics together with an analysis of the social and political issues that influence the workplace.

MKTG 7399 Independent Study

MBA or MS in BIS Elective. Prerequisites: All Foundation Courses, 12 credits of Core Courses, and consent of instructor. Intensive research under faculty supervision on an approved topic in an area not covered in depth through regularly scheduled courses; research paper required.

MKTG 8300 Seminar in Current Topics

MBA or MS in BIS Elective. Prerequisites: Consent of instructor. Topics of current importance, interest in marketing.

COLLEGE OF EDUCATION AND HEALTH PROFESSIONS

Dickinson Hall, Room 323, (501) 569-3113, fax (501) 569-8694, ualr.edu/cehp/

Professor Ann Bain, Dean

Associate Professor Bronwyn MacFarlane, Interim Associate Dean for Accreditation, Licensure, and Student Services

Associate Professor Shannon Collier-Tenison, Interim Associate Dean for Research, Interdisciplinary Programs, and Community Engagement

The new College of Education and Health Professions brings together several of UALR's most well established and successful professional programs that are each individually accredited.

By emphasizing multidisciplinary collaboration and sharing departmental strengths, the new college is poised to become a 21st century leader in opening doors to high-demand careers for graduates of all ages. Enthusiasm and support for the reorganization prevail throughout its departments and across the campus.

The college offers various master's, education specialist, and a doctorate degrees. Programs in the college, which prepare educational professionals, are accredited by the National Council for Accreditation of Teacher Education (NCATE) and endorsed by national specialty professional associations.

Program	Certificate or Degree Program	Department/School
Building Level Administration & Supervision	Administrator Licensure	Educational Leadership
Curriculum & Instruction	Master's (M.Ed.)	Teacher Education
Curriculum/Program Administration & Supervision	Administrator Licensure	Educational Leadership
Educational Administration & Supervision	Master's (M.Ed.)	Educational Leadership
Educational Administration & Supervision	Educational Specialist	Educational Leadership
Educational Administration & Supervision	Doctorate (Ed.D.)	Educational Leadership
Gifted & Talented Education	Certificate	Educational Leadership
Higher Education	Master's (M.A.)	Educational Leadership
Higher Education	Doctorate (Ed.D.)	Educational Leadership
Learning Systems Technology	Master's (M.Ed.)	Educational Leadership
Literacy Coach Specialis	Certificate	Teacher Education
Literacy Intervention Specialist	Certificate	Teacher Education
Mathematics Education	Certificate	Teacher Education
Middle Childhood Education	Master's (M.Ed.)	Teacher Education
Reading	Master's (M.Ed.)	Teacher Education
Reading	Educational Specialist	Teacher Education
Reading	Doctorate (Ed.D.)	Teacher Education
Reading/Literacy Coach	Certificate	Teacher Education
Secondary Education	Certificate	Teacher Education
Secondary Education	Master's (M.Ed.)	Teacher Education
Special Education	Master's (M.Ed.)	Teacher Education

Program	Certificate or Degree Program	Department/School
Superintendency	Administrator Licensure	Educational Leadership
Teaching Advanced Placement	Certificate	Educational Leadership
Teaching the Gifted and Talented Education	Master's (M.Ed.)	Educational Leadership
Adult Education	Master's (M.Ed.)	Counseling, Adult & Rehabilitation Education
Audiology (joint with UAMS)	Doctorate (Ph.D.)	Audiology & Speech Pathology
Communication Sciences & Disorders	Master's (M.S.)	Audiology & Speech Pathology
Communication Sciences & Disorders	Doctorate (Ph.D.)	Audiology & Speech Pathology
Counselor Education	Master's (M.Ed.)	Counseling, Adult & Rehabilitation Education
Gerontology	Certificate	Social Work
Health, Human Performance & Sport Management	Master's (M.S.)	Health, Human Performance & Sport Management
Orientation and Mobility of the Blind	Certificate	Counseling, Adult & Rehabilitation Education
Rehabilitation Counseling	Master's (M.A.)	Counseling, Adult & Rehabilitation Education
Rehabilitation Counseling	Certificate	Counseling, Adult & Rehabilitation Education
Rehabilitation of the Blind	Master's (M.A.)	Counseling, Adult & Rehabilitation Education
Social Work	Master's (M.S.W.)	Social Work

EDUCATIONAL ADMINISTRATION AND SUPERVISION

Dickinson Hall, Room 419

(501) 569-3267

The Educational Administration and Supervision program at UALR includes three graduate degree programs (master's, specialist, and doctorate) and three graduate certificate programs (Building Level Administration and Supervision, Curriculum/Program Administration and Supervision, and Superintendency).

Graduate Degree Programs

Master of Education in Educational Administration and Supervision

The graduate program in Educational Administration and Supervision (EDAS) prepares students for leadership positions in schools, school districts, or state offices. In addition, students may prepare for Arkansas licensure as elementary or secondary principals, supervisors, or central office administrators. The programs include both classroom instruction and field experiences.

Admission Requirements

All applicants must have:

- A valid teaching license (Arkansas or other state)
- Favorable recommendations from faculty in the program
- Completed Biographical Data Form
- At least two years professional experience in K-12 settings (Please note: Four years of experience is required to be eligible for administrative licensure. Candidates may accrue this experience while in the program.)
- Two letters of reference/recommendation addressing potential leadership ability and potential for success in a graduate program

Regular Admission (Additional requirements)

- Baccalaureate degree from a regionally accredited institution with a cumulative GPA of at least 2.75 (4.0 scale)
or
- Grade point average of at least 3.0 for the last 60 hours of undergraduate courses
or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0

Conditional Admission

In order to be eligible for conditional admission, an applicant must meet two out of the four following requirements:

- Baccalaureate degree from a regionally accredited institution with a cumulative undergraduate GPA of no lower than 2.5 (on a 4.0 scale)
- Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale
- GRE score of at least 141 on the Quantitative Scale
- GRE score of at least a 3.0 on the Analytical Writing section

Once admitted on this basis, the student must take the following courses as an indicator of his/her scholarly work during the first 12 hours and maintain a 3.5 average GPA:

EDAS 7300 Foundations of Educational Administration

EDAS 7304 Supervision of Learning Services

EDAS 7305 The Principalship

EDFN 7303 Introduction to Research

Program Requirements

Students must develop a Program of Study (POS) with the consultation of their assigned advisor in the first semester of admittance into the program. The approved POS is an abiding document and it guides students about steps the students need to take towards the completion of their degrees. The building level licensure program is embedded in the masters program. Failure to progress satisfactorily will result in the removal of the candidate from the program. The POS includes the following required courses that constitute the standards associated with that body of knowledge and the application of appropriate skills and dispositions to be a successful practicing administrator.

Program of Study

Program co-requisite:

SPED 4301 The Exceptional Learner (or equivalent)

Educational Administration and Supervision (24 credits)

EDAS 7300 Foundations of Educational Administration

EDAS 7301 Administration & Assessment of Curricular Programs

EDAS 7302 School Finance and Human Resource Allocation

EDAS 7303 Educational Law and Ethics

EDAS 7304 Supervision of Learning Services

EDAS 7305 The Principalship

EDAS 7309 Building Coalitions with School and Community

EDAS 7310 Facilitating School Improvements

Educational Foundation Courses (6 credits)

EDFN 7303 Introduction to Educational Research

EDFN 7304 Basic Statistics

Building Level Internship (6 credits)

EDAS 7380 Administrative Internship (1st Semester)

EDAS 7380 Administrative Internship (2nd Semester)

M.Ed. Graduation Requirements

- Successful completion of an approved Program of Study
- Successful presentation and approval of the Master of Education Portfolio
- Successful completion of the Chalk and Wire requirements

Educational Specialist in Educational Administration and Supervision

The Educational Specialist (Ed.S.) is an advanced graduate experience for professional educators who wish to specialize in some aspects of educational administration and supervision or to upgrade their skills and licensure. The Ed.S. program presumes that students have the prerequisite basic administrative skills and knowledge to embark on an advanced program. Students deficient in any area are required to address those deficiencies as part of their programs.

Admission Requirements

- Master's degree from a regionally accredited institution.
- A grade point average (GPA) no lower than 3.0.
- Completed Biographical Data Form
- Two letters of recommendation addressing potential leadership ability and success in a graduate program
- Valid teaching license
- Students must have at least four years' experience in the content area by the completion of their programs.

Conditional Admission

In order to be eligible for conditional admission, an applicant must meet two out of the four following requirements:

- Master 's degree from a regionally accredited institution with a cumulative GPA of 3.0 (on a 4.0 scale)
- Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale
- Graduate Record Exam (GRE) score of at least 141 on the Quantitative Scale
- Graduate Record Exam (GRE) score of at least a 3.5 on the Analytical Writing section

Once admitted on this basis, the student must take the following courses as an indicator of his/her scholarly work during the first 12 hours and maintain a 3.5 average GPA:

EDAS 8305 School Personnel Administration

EDAS 8312 School Business Management and Facilities Planning

EDFN 7304 Basic Statistics

EDFN 8305 Intermediate Statistics

Program Requirements

Students must develop a Program of Study (POS) with the consultation of their assigned advisor in the first semester of admittance into the program. The approved functioning as an abiding document, the POS guides students about the course of action (e.g., courses and internship) the students need to take towards the completion of their degrees. The district level licensure program is embedded in the specialist program. The POS includes the following required courses that constitute the standards associated with that body of knowledge and the application of appropriate skills and dispositions to be a successful school administrator. These courses are not taken in any sequential order. Failure to progress satisfactorily will result in the removal of the candidate from the program.

Program of Study

Program co-requisite:

SPED 4301 The Exceptional Learner (or equivalent)

Educational Administration and Supervision (27 Credits)

EDAS 8300 Seminar and Scholarly Writing

EDAS 8301 Group Dynamics and Behavior in Learning Organizations

EDAS 8303 Advanced Seminar in School Law and Ethics

EDAS 8305 School Personnel Administration

EDAS 8308 Central Office and Special Programs Administration

EDAS 8311 Superintendency

EDAS 8312 School Business Management and Facilities Planning

EDAS 8313 School and Community Relations

EDAS 8317 Politics & Policy Analysis in Education

Educational Foundation Courses (9 Credits)

EDFN 7373 Qualitative Research Methods

EDFN 8305 Intermediate Statistics

EDFN 8306 Advanced Educational Research

District Level Internship (6 Credits)

EDAS 8380 and 8381 Administrative Internship in Central Office (two semesters)

The culminating experience in the Ed.S. program is the development and presentation of an e-portfolio.

Please contact the program coordinator for additional information and current programs and requirements regarding licensure in the State of Arkansas.

Graduation Requirements

- Successful completion of an approved Program of Study
- Successful presentation an approval Education Specialist Portfolio
- Successful completion of Chalk and Wire requirements

Licensure

Students must take the School Superintendent Assessment (SSA) for the superintendent's license. To become a program/curriculum coordinator/director/administrator, the student must take the School Leadership Licensure Assessment (SLLA). Please contact the licensure program coordinator for additional information and current programs and requirements regarding licensure in the State of Arkansas.

Doctor of Education in Educational Administration and Supervision

Admissions Requirements

- An application to the Graduate School
- Master's or specialist degree from a regionally accredited institution
- Cumulative GPA of at least 3.5
- Graduate Record Exam (GRE) score of at least 141 on the Verbal, 150 on the Quantitative, and 4.5 on the Analytical Writing sections
- A valid teaching license (Arkansas or other state)
- Three letters (3) of recommendation attesting to qualifications of the applicant for this advanced graduate study
- A professional statement outlining goals and reasons for pursuing graduate study in administration and supervision
- A guided interview with and approval of the EDAS Program Admissions Committee
- A writing sample

Conditional Admission

In order to be eligible for conditional admission, an applicant must meet three out of the four following requirements:

- Master's or specialist's degree from a regionally accredited institution with a cumulative GPA of 3.5 (on a 4.0 scale)
- Graduate Record Exam (GRE) score of at least 146 on the Verbal Scale
- GRE score of at least 141 on the Quantitative Scale
- GRE score of at least a 3.5 on the Analytical Writing section

Once admitted on this basis, the student must take the following courses as an indicator of his/her scholarly work during the first 12 hours and maintain a 4.0 average GPA:

EDAS 8303 Advanced Seminar in School Law and Ethics
EDAS 8307 Sociocultural Foundations of Educational Policy
EDFN 8306 Advanced Research Methods and Techniques
EDFN 8308 Advanced Statistics

Co-Emphasis Option

Doctoral program in Educational Administration and Supervision has a co-emphasis option in (a) Special Education and (b) Gifted Education. Co-emphasis serves as the "minor" within students' concentration in Educational Administration and Supervision. The co-emphasis is designed for candidates desiring to administer these programs from the district or educational cooperative perspective. Students taking advantage of this option must have a graduate degree in the field of co-emphasis. Students pursuing a co-emphasis area should consult with the faculty member in the co-emphasis area to focus dissertation research in the co-emphasis area. Advising and dissertation chairing is provided by the program faculty in Educational Administration. Students with co-emphasis must develop a Program of Study upon their first semester of admission to the doctoral program. Students with co-emphasis may take up to twelve credits of course work in the co-emphasis area.

Program Requirements

Requirements for the Ed.D. in Educational Administration and The doctoral program includes the following courses that constitute the standards associated with the body of knowledge and the application of appropriate skills and dispositions to be a successful school administrator. These courses are not taken in any specified order; however, there is a logical sequence that may be beneficial to a candidate's successful progression through the program. Students will be advised by program faculty as to the typical sequence of courses, or best individualized progression.

Program of Study

Program co-requisite:

SPED 4301 The Exceptional Learner (or equivalent)

Concentration in Educational Administration and Supervision (18 credits)

EDAS 8303 Advanced Seminar in School Law and Ethics

EDAS 8307 Sociocultural Foundations of Educational Policies

EDAS 8317 Politics and Policy Analysis

EDAS 8320 Advanced Administrative Leadership Theory

EDAS 8330 Organizational System Analysis, Design, and Change

EDAS 9300 Seminar and Scholarly Writing

Electives or Co-emphasis Area (12 credits)

Approved electives in concentration area or courses in co-emphasis

Education Educational Foundations (15 credits)

EDFN 7373 Qualitative Research Methods

EDFN 8305 Intermediate Statistics

EDFN 8306 Advanced Research Methods and Techniques

EDFN 8308 Advanced Statistics

EDFN 8310 Applied Measurement in Research and Analysis

Dissertation (15 credits minimum)

EDAS 9390 Dissertation Colloquium

EDAS 9199-9999 Dissertation

Residency Plan

All requirements for the doctoral degree must be completed within seven consecutive years of enrollment in the program. Each Ed.D. student must file a residency plan for fulfilling residency requirement that demonstrates a commitment to the program through continuous and intensive enrollment at UALR. Students should consult with the doctoral program coordinator in the selection of residency plan at least 20 class days before the end of the first semester of the planned residence period.

Residency hours must be in degree-related graduate courses. Requirement options are:

- 9 hours in each of 2 consecutive semesters, Fall-Spring or Spring-Fall.
- 9 hours in a Spring or Fall semester, and 9 hours in adjacent Summer terms.
- 24 total hours in 18 consecutive months with at least 6 hours each enrollment period.
- At least 6 hours each in 4 consecutive Fall and Spring semesters with 30 total hours.

All residency plans require candidates to enroll for graduate hours every fall and spring semester during the entire course of graduate program.

Advanced Standing Program

Applicants with an Educational Specialist degree (Ed.S.) in Educational Administration may be admitted to the doctoral program with an advanced standing. A maximum of 30 credit hours of specialist coursework may be credited towards the 60 credit hours in the doctoral program of study. A student who is accepted with advanced standing must have completed a total of 96 post-baccalaureate semester hours of which no less than 30 hours must be awarded by UALR. Crediting any specialist level hours towards advanced standing is made on an individual basis.

The following stipulations would apply for advanced standing:

- Applicant must have a grade of B or greater in applicable specialist level courses;
- The specialist degree must be completed within the past 5 years, or Ed.S. degree with continuous service as a practicing administrator for the past five years in a position requiring a public school administrator license; and
- If taken from another university, the specialist courses must be applicable to the UALR Doctoral Program in Educational Administration and Supervision.

Students must satisfy admission and graduation requirements stated in the “Academic Policies and Procedures Rules” section of the Graduate Catalog and additional program requirements found under the College of Education and Health Professions section of this catalog. The candidate must be able to demonstrate computer competency in course work and program requirements. The University reserves the right to modify policies and programs of study by supplying students written notice of change.

Advancement to Candidacy

Upon the completion of content coursework and successfully passing the comprehensive examinations, students apply for the advancement to candidacy. Advancement is based on the student’s record, including a GPA of at least 3.5 and recommendation of advisor. Students not meeting these requirements will have an interview with the program faculty members, who will then recommend continuation, remediation and re-examination, or withdrawal.

The dissertation is begun after the student completes the coursework and passes the comprehensive examination. With the guidance of student’s advisor a Dissertation Committee is formed. Dissertation Committee is chaired by an EDAS full-time faculty. A full research proposal is submitted to the Dissertation Committee consisting of three Division of Education faculty members, one from another UALR college, and one member from outside the university (if appropriate). All committee members must have an earned doctorate or appropriate terminal degree. Students proposing research on human subjects must comply with protocol prescribed by the Institutional Review Board (IRB). Contact the program coordinator for more information.

Students must enroll in Dissertation hours and continue to enroll each semester until the dissertation is completed and approved.

Graduation Requirements

- Successful completion of an approved program of study
- Successful completion of the Chalk and Wire and aLAB requirements
- Passing the comprehensive exams successfully
- Successful completion and defense of the doctoral dissertation

Licensure

The Arkansas Department of Education requires a program of study in educational leadership for principal curriculum/program administrator, or superintendency administrator licensure. Licensure requirements may be coordinated with M.Ed. and Ed.S. requirements; the Ed.D. program is not aligned with the administrative licensure.

Applicants for licensure must take the School Leaders Licensure Assessment for licensure as a principal or the School Superintendent Assessment for the Superintendent’s License. To become a program/curriculum coordinator/director/administrator, the student must take the School Leadership Licensure Assessment. Please contact the licensure program coordinator for additional information and current programs and requirements regarding licensure in the State of Arkansas.

Graduate Certificate Programs

The Educational Administration and Supervision Program includes three graduate certificates leading the state level licenses in educational leadership.

Graduate Certificate in Building Level Administration and Supervision

The Building Level Administration and Supervision certificate program is designed to meet the licensure requirements for principalship. The program includes a minimum 24 credit hours of graduate coursework and internship in educational administration.

Admissions Requirements

Admissions requirements are the same as those for the Master of Education degree in Educational Administration and Supervision.

Program Requirements

Students must develop a Program of Study (POS) with the consultation of their assigned advisor in the first semester of admittance into the program.

Program of Study

Program co-requisite:

- SPED 4301 The Exceptional Learner (or equivalent)
- EDAS 7300 Foundations of Educational Administration
- EDAS 7301 Administration & Assessment of Curricular Programs
- EDAS 7302 School Finance and Human Resource Allocation
- EDAS 7303 Education Law and Ethics
- EDAS 7304 Supervision of Learning Services
- EDAS 7305 The Principalship
- EDAS 7380 Administrative Internship (First Semester)
- EDAS 7380 Administrative Internship (Second Semester)

Graduation Requirements

- Successful completion of an approved program of study
- Successful completion of an electronic portfolio and other Chalk and Wire requirements
- Four years of K-12 experience as a licensed classroom teacher, school counselor, or library media specialist
- Submission of School Leader Licensure Assessment (SLLA) scores

Licensure Examination

Arkansas Department of Education requires candidates seeking building level principalship license to take The School Leader Licensure Assessment (SLLA). The SLLA must be taken during the last semester of candidate's program of study.

Graduate Certificate in Curriculum/Program Administration and Supervision

This graduate certificate program includes a minimum 24 credit hours of graduate coursework and internship in educational administration. The Curriculum/Program Administrator Licensure is defined by the Arkansas Department of Education as an individual that is responsible for: (a) program development and administration and/or (b) employment evaluation decisions. The license is granted to administer only the specialist area in Special Education, Gifted and Talented Education, Career and Technical Education, Content Area Specialist, Curriculum Specialist, and Adult Education Teaching.

Admissions Requirements

Admissions requirements are the same as those for the Educational Specialist degree in Educational Administration and Supervision.

Program Requirements

Students must develop a Program of Study (POS) with the consultation of their assigned advisor in the first semester of admittance into the program.

Program of Study

Program co-requisite:

- SPED 4301 The Exceptional Learner (or equivalent)
- EDAS 7301 Administration & Assessment of Curricular Programs
- EDAS 7303 Education Law and Ethics
- EDAS 7304 Supervision of Learning Services
- EDAS 8305 School Personnel Administration
- EDAS 8308 Central Office and Special Programs Administration
- EDAS 8313 School Community Relations
- EDAS 8380 Administrative Internship in the Central Office (First Semester)
- EDAS 8381 Administrative Internship in the Central Office (Second Semester)

Graduation Requirements

- Successful completion of an approved program of study
- Successful completion of an electronic portfolio and other Chalk and Wire requirements
- Four years of K-12 experience as a licensed classroom teacher, school counselor, or library media specialist
- Submission of School Leader Licensure Assessment (SLLA) scores

Licensure Examination

Arkansas Department of Education requires candidates seeking Curriculum/Program Administrator License to take The School Leader Licensure Assessment (SLLA). The SLLA must be taken during the last semester of candidate's program of study.

Graduate Certificate in Superintendency

This certificate program is designed to gain knowledge, skills, and dispositions to be a successful superintendent or other district level administrative positions. Arkansas Department of Education requires the receipt the candidate holding a Building Level Principalship or Curriculum/Program Administrator License.

Admissions Requirements

Admissions requirements are the same as those for the Educational Specialist degree in Educational Administration and Supervision.

Program Requirements

Students must develop a Program of Study (POS) with the consultation of their assigned advisor in the first semester of admittance into the program.

Program of Study

Program co-requisite:

- SPED 4301 The Exceptional Learner (or equivalent)
- EDAS 7302 School Finance and Human Resource Allocation
- EDAS 8303 Advanced Seminar in School Law & Ethics
- EDAS 8311 The Superintendency
- EDAS 8312 School Business Management and Facilities Planning
- EDAS 8313 School Community Relations
- EDAS 8317 Politics and Policy Analysis
- EDAS 8380 Administrative Internship in the Central Office (First Semester)
- EDAS 8381 Administrative Internship in the Central Office (Second Semester)

Graduation Requirements

- Successful completion of an approved program of study
- Successful completion of an electronic portfolio and other Chalk and Wire requirements
- Four years of K-12 licensed experience
- Submission of School Superintends Assessment (SSA) scores

Licensure Examination

Arkansas Department of Education requires candidates seeking superintendent's licensure to take The School Superintends Assessment (SSA). The SSA must be taken during the last semester of candidate's program of study.

Courses in Educational Administration and Supervision

EDAS 7300 Foundations of Educational Administration

Co-requisite: EDAS 7305 or 7307. This course will provide the student with an introduction to the organization and leadership theoretical knowledge base with practical application for school administrators.

EDAS 7301 Administration and Assessment of Curricular Programs

Prerequisite: EDAS 7300, 7302, 7303, 7305, 7304. An introduction to the concepts involved in the planning, organization, administration, and evaluation of curricular programs that are aligned with instructional and assessment techniques.

EDAS 7302 School Finance and Human Resource Allocation

A study of school finance concepts and the allocation of human resources within the education system.

EDAS 7303 Education Law and Ethics

Prerequisite: EDAS 7300; 7304; 7305. A study of legal concepts, issues relating to public school administration.

EDAS 7304 Supervision of Learning Services

Prerequisite: EDAS 7300 and 7305. This course will provide the student with acquisition of knowledge and skills relevant to administrative supervision and evaluation, with opportunities for application to practice in supervising learning services.

EDAS 7305 The Principalship

Co-requisite: EDAS 7300. This course will provide the student with the acquisition of knowledge and application of practice for administration of elementary schools including pre-K through early childhood grades.

EDAS 7309 Building Coalitions in School and Community

Prerequisites: EDAS 7300 Foundations of Educational Administration and EDAS 7305 or 7307 Elementary or Secondary Principalship. This course will provide the student with the knowledge and dispositions needed to facilitate and engage in collaborating with families and community members, respond to diverse community interests and needs, and mobilize community resources that promote the success of all children.

EDAS 7310 Facilitating School Improvement

Prerequisites: EDAS 7300 Foundations of Educational Administration and EDAS 7305 The Principalship. This course provides the student with the acquisition of knowledge and application of practice for analyzing, initiating, managing, and evaluating the process related to organizational change for school improvement.

EDAS 7343 Workshop

Prerequisites: EDAS 7300. (For prospective, practicing, administrators, supervisors). Experiences; development of special skills.

EDAS 7380 Administrative Internship

Prerequisites: EDAS 7300, 7302, 7303, 7304, 7305. This course will provide the student with significant opportunity to synthesize and apply knowledge, and develop and practice administrative skills in diverse settings under the direction of a school and/or school district administrative mentor and the university.

EDAS 7391 Independent Study in Educational Administration

Specific topic of student's interest in educational administration.

EDAS 8300 Educational Specialist Seminar and Scholarly Writing

Education specialist concentration in preparation for advanced graduate studies with a focus on scholarly writing.

EDAS 8301 Group Dynamics and Behavior in Learning Organizations

Prerequisite: EDAS 7300. This course will provide the student with an introduction to theoretical knowledge and an understanding of implications related to group dynamics and behavior specific to team building and group collaboration for leaders in educational organizations.

EDAS 8303 Advanced Seminar in School Law and Ethics

Prerequisites: EDAS 7300 and 7303. The advanced study of legal and ethical concepts and issues related to executive management of educational institutions.

EDAS 8305 School Personnel Administration

Techniques, practices of administering school personnel programs.

EDAS 8307 Socio-Cultural Foundations of Educational Policies

Education as a socio-cultural phenomenon; fundamental differences in views of educational aims and values in a historical context.

EDAS 8308 Central Office and Special Programs Administration

Prerequisite: EDAS 7300. Board-administration relationships, organizational theory and practice, unique requirements of administering special programs in school districts, special schools, service centers; includes special, multicultural, gifted and talented education.

EDAS 8310 Directed Readings in Educational Administration

Prerequisite: consent of advisor. Current writings; evaluation of research base, assessment of authors' hypotheses; knowledge of current research, theory.

EDAS 8311 The Superintendency

This course addresses the theory and practice of such areas as superintendent-board relation, strategic planning, professional negotiation, leadership style, and school climate from the superintendent's perspective.

EDAS 8312 School Business Management/Facilities Planning

This course will provide the student with acquisition of knowledge and application of practice of school personnel administration.

EDAS 8313 School and Community Relations

The course presents principles and practices in developing and maintaining appropriate school/community relationships, opinion analysis communication processes, and decision making patterns.

EDAS 8314 Contemporary Issues and Trends in Educational Administration

The course will provide the student with the opportunity to investigate contemporary issues and trends related to educational administration and examine problems and solutions that are of current concern for school organizations.

EDAS 8315 Administrative Problem Analysis

A practical examination of the skills and knowledge needed to do problem analysis (problem finding, problem solving, problem sharing, participatory decision making, and leadership sharing) for school problem situations.

EDAS 8316 Collective Negotiations

The history of the public school labor movement in the United States and in the state of Arkansas, and the role of the educational Administrators in the negotiations and contract administration process.

EDAS 8317 Politics and Policy Analysis

Theory, practice of policy making; political influences brought to bear on policy issues in education.

EDAS 8320 Advanced Administrative Leadership Theory

An in-depth examination of theoretical concepts underpinning educational administration and the relationships of theories to current research and practice.

EDAS 8330 Organizational Systems Analysis, Design, and Change

An in-depth examination of theoretical concepts related to educational organizational structures and the study of conceptual models used for organizational analysis, design and organizational change in education.

EDAS 8380 Administrative Internship in the Central Office

Prerequisites: 24 graduate hours in educational administration. This course will provide the student with significant opportunity to synthesize and apply knowledge, and develop and practice administrative skills in diverse setting under the direction of a district/central office administrative mentor and the university.

EDAS 8381 Administrative Internship in the Central Office

Prerequisites: 24 graduate hours in educational administration and completion of EDAS 8380 Administrative Internship in the Central Office. This course will provide the student with significant opportunity to synthesize and apply knowledge, and develop and practice administrative skills in diverse setting under the direction of a district/central office administrative mentor and the university.

EDAS 9300 Doctoral Seminar and Scholarly Writing

Prerequisite: program admission. Orientation to doctoral studies, program procedures, dissertation issues, reflecting the expectations of the course standards consistent with the requirements of the Arkansas Department of Education, the Interstate School Leaders Licensure Consortium, and the National Council for the Accreditation of Teacher Education.

EDAS 9199-9999 Dissertation

Prerequisites: completion of all course work, consent of instructor. Development of a doctoral-level dissertation.

EDAS 9390 Dissertation Colloquium

Development of various components of doctoral-level dissertation proposal.

GIFTED AND TALENTED EDUCATION

Dickinson Hall, Room 419

(501) 569-3267

Graduate Certificate in Gifted and Talented Education

The Graduate Certificate in Gifted and Talented Education prepares students to complete their licensure in Gifted and Talented Education. It is a K-12 licensure attached to an existing license in general or special education.

Admission Requirements

Regular and Conditional Admission

All applicants must have:

- A valid teacher license (Arkansas or other state), and
- Favorable recommendations from faculty in the program.

Regular Admission (additional requirements)

- Baccalaureate degree from a regionally accredited institution with a cumulative GPA of at least 2.75 (4.0 scale), or
- Grade point average of at least 3.0 for the last 60 hours of undergraduate courses, or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0.

Conditional Admission

- Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than 2.5; and a Graduate Record Exam (GRE) score of at least 370 on the Verbal Scale, 440 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale, or
- Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Program Requirements

The program of study includes four required courses:

GATE 7350 Teaching the Gifted and Talented

GATE 7355 Creativity Seminar

GATE 7357 Curriculum and Instruction in Gifted Education

GATE 7390 Supervised Practicum

Electives in Gifted Education

In addition, candidates select two electives in gifted education suited to their particular career goals to complete the program.

Graduation Requirements

Cumulative GPA of at least 3.0 on an approved program of study.

Master of Education in Teaching the Gifted and Talented

The Master of Education in Teaching the Gifted and Talented (GATE) prepares students for professional careers as teachers of gifted and talented students and as administrators of programs for the gifted and talented in a variety of school and community settings. Elective courses and independently selected student projects encourage students to focus on an area of emphasis related to personal and professional goals. The curriculum is interdisciplinary.

In addition to the Master's degree, there are two certificate programs, a Graduate Certificate in Gifted and Talented Education and a Graduate Certificate in Teaching Advanced Placement. For more information about these programs,

see the descriptions that follow, and visit the website at <http://ualr.edu/edleadership/>. In addition to the Master's degree and certificate programs, an area of concentration in gifted education is available through the doctoral program in Educational Administration and Supervision. Contact Dr. Ann Robinson at aerobinson@ualr.edu for more information.

The Graduate Certificate in Gifted and Talented Education prepares students to complete their licensure in Gifted and Talented Education. It is a K-12 licensure attached to an existing license in general or special education.

Admission Requirements

Regular and Conditional Admission

All applicants must have:

- A valid teacher license (Arkansas or other state), and
- Favorable recommendations from faculty in the program.

Regular Admission (additional requirements)

- Baccalaureate degree from a regionally accredited institution with a cumulative GPA of at least 2.75 (4.0 scale), or
- Grade point average of at least 3.0 for the last 60 hours of undergraduate courses, or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0.

Conditional Admission

- Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than 2.5; and a Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale, 141 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale, or
- Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Program Requirements

The program of study includes four required courses:

GATE 7350 Teaching the Gifted and Talented

GATE 7355 Creativity Seminar

GATE 7357 Curriculum and Instruction in Gifted Education

GATE 7390 Supervised Practicum

Electives in Gifted Education

In addition, candidates select two electives in gifted education suited to their particular career goals to complete the program.

Program Requirements

The master's degree requires 36 credit hours, including 9 to 15 education core area hours; GATE 7350 Teaching the Gifted and Talented; GATE 7355 Creativity Seminar; GATE 7356 Current Issues in Research on Education of the Gifted and Talented; GATE 7357 Curriculum and Instruction in Gifted Education; 6 practicum hours, or 3 practicum and 3 internship hours; 3 additional approved gifted and talented hours; 3 to 9 elective hours; and a written comprehensive examination.

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study
- Pass the comprehensive exam

Graduate Certificate in Teaching Advanced Placement

The Graduate Certificate in Teaching Advanced Placement is a 12-hour certificate. The purpose is to provide professional development to Pre-AP and AP teachers. Advanced Placement is a national program of the College Board which allows secondary students to acquire college-level credit for a freshman course through a rigorous externally administered examination jointly developed by colleges and secondary schools.

Admission Requirements

See previous section for "Regular and Conditional" criteria.

Program Requirements

The certificate program is a 12 credit hour program of 4 courses:

GATE 7361 Advanced Placement for Talented Youth (overview of Advanced Placement program-course available at Summer Institute)

GATE 7395 Internship (on-site internship in the home school focused on district demographics, needs analysis, equity and access issues, recruitment, staff development)

GATE 7393 Content Specific Pedagogy in Pre-AP/AP (curriculum unit or scope/sequence plan for Pre-AP/AP teaching assignment) (course available at Summer Institute)

GATE 7390 Supervised Practicum (supervised teaching experience in a Pre-AP/AP classroom)

Graduation Requirements

Cumulative GPA of at least 3.0 on an approved program of study.

Courses in Teaching the Gifted and Talented

GATE 5102, 5202, 5302 Workshop

Subjects vary. Offered on demand.

GATE 7191, 7291, 7391 Independent Study

Prerequisite: consent of advisor. Directed individual study of selected topics. Prerequisite: consent of instructor. Topics may include administration and supervision of gifted programs, specialized curriculum and technology, social and emotional needs of the gifted, program evaluation and performance assessment.

GATE 7350 Teaching the Gifted and Talented

Characteristics, needs of gifted and talented children, youths; identification procedures; types of educational programs available; historical and philosophical foundations required of professionals in the field; history of the gifted child movement.

GATE 7355 Creativity Seminar

Concepts of creativity; emphasis on relationships to education of gifted and talented students; theoretical, experimental aspects of the creative processes; their application to instruction.

GATE 7193, 7293, 7393 Special Topics

Subjects vary. Offered on demand.

GATE 7356 Current Issues in Research on Education of the Gifted and Talented

Prerequisite: Teaching the Gifted and Talented 7350. Recent theoretical, practical research; students assist in identification of applicable current research issues, conduct literature searches, synthesize results to develop appropriate position statements; may be repeated once for credit.

GATE 7357 Curriculum and Instruction in Gifted Education

Prerequisite: Teaching the Gifted and Talented 7350. In-depth study of various instructional and curriculum models appropriate for use with gifted and talented students. Students will develop a curriculum project including a rationale, goals, objectives, learning activities, applications of technology and curriculum based assessment plans.

GATE 7361 Advanced Placement for Talented Youth

Policies, procedures, and program and curriculum design for accelerative options. Includes principles of optimal match, curriculum articulation, vertical teaming and comparisons of national and international accelerative program models and assessments.

GATE 7362 Administrative and Legal Issues in Gifted Education

Policies, procedures and practices for coordinating/ administering programs for the gifted. Includes discussion of administrative issues of programming, identification of minorities, teacher selection, staff development, and program evaluation. Legal issues involved in gifted education, including due process, equity issues, and appropriate documentation are also discussed.

GATE 7363 Affective Needs of the Gifted and Talented

Prerequisite: Consent of the advisor. Students will explore the major theories, unique issues, and various intervention strategies concerning the affective needs of gifted students at all ages and stages of their development.

GATE 7390 Supervised Practicum

Prerequisites: GATE 7350, 7357, consent of advisor. Practical application of content, instructional skills, competencies acquired in courses; may be repeated once for credit.

GATE 7395 Internship

Prerequisites: 12 graduate hours, consent of advisor. Experience in the chosen specialization area under guidance of a practicing professional. Offered on demand.

GATE 7399 Thesis

Prerequisites: Educational Foundations 7303, 15 additional graduate education hours, consent of advisor. Formal research project; content determined with faculty committee chosen by student. May be repeated for six hours total.

Dickinson Hall, Room 419

(501) 569-3267

Master of Arts and Doctor of Education

The Master of Arts in Higher Education is designed for those individuals who are interested in entering or expanding their potential for attaining leadership positions in the field of higher education. Students choose from one of the concentration areas: Two-Year College Teaching, College Student Affairs, and Administration. The Two-Year College Teaching concentration is designed for those who are currently employed as faculty members in two-year colleges or those who aspire to such positions. It includes a minimum of 18 graduate hours in the teaching cognate field plus other required and elective courses that allow students to develop stronger faculty expertise.

The Master of Arts in College Student Affairs concentration is designed for individuals who have special interest in college students and the higher education environments that affect their development. In addition, this program enables working professionals to increase their skills, knowledge, and abilities to compete for professional positions of increasing responsibility and scope. Program graduates are prepared to assume a wide range of administrative and professional roles in the fields of student life and student services.

Administration Concentration

The Administration concentration is tailored for those students aspiring to enter the field of higher education administration. The program enables these potential or currently employed students to develop the skills, knowledge, and abilities to compete for increasingly responsible professional positions in higher education administration. Program graduates are prepared to assume a wide range of administrative and professional roles in the administration of colleges and universities.

Health Professions Education Concentration

The Health Professions concentration will provide the conceptual framework and skills for graduates to engage in the scholarship of teaching as related to the education of current and future pharmacists, physicians, nurses, health related professionals, and public health workers in Arkansas. Using an interdisciplinary combination of resources from the UALR Higher Education graduate program and UAMS as a nationally recognized academic health center within close proximity, students will learn to deliver high-quality health professions education and gain practical experience to link empirical research and evidence-based decision making to design more effective instructional practices and measure student learning.

Doctor of Education

UALR's doctoral program in higher education (HIED) prepares students for a wide range of administrative and teaching roles in institutions of higher education. In addition to providing the necessary professional skills and knowledge, the faculty seeks to facilitate the development of students' leadership potential and to inspire commitment and dedication to the field of higher and post-secondary education.

For more information about the master's degrees in Higher education or the doctorate in higher education, visit the program's website at ualr.edu/edleadership/.

Master of Arts in Higher Education (both concentrations)

Admission Requirements

- Application for admission to the UALR Graduate School
- Graduate Record Exam score of at least 900 (old GRE Score) / 290 (New GRE Score, verbal and quantitative scales combined), or Miller Analogies Test score of at least 396. Tests must be taken within the last 5 years.
- Original transcripts from all colleges and universities previously attended reflecting an undergraduate grade point average of 3.0 on a 4.0 scale
- Biographical Data Form
- A two-page, typed and double-spaced explanation of the reasons for applying to the program and the goals the student expects to achieve
- An interview with at least one faculty member from the program resulting in a favorable recommendation from that faculty member

Conditional Admission

Candidates who have at least an overall GPA of 2.5 but only one criterion achieved (the required test score or required GPA) may present a profile demonstrating progressively successful professional development experience beyond the bachelor's degree and successfully complete the interview with the program faculty to be admitted conditionally to the program. Upon successful completion of six hours, the student may receive regular admission to the program.

Program Requirements

Concentration in Two-Year College Teaching

Students admitted to the program must complete 36 semester hours of graduate course work. Included will be at least 18 hours in the teaching cognate field, 12 hours in the program core, and 6 hours of elective courses selected in consultation with the faculty advisor. Students have three options for completing the degree: 1) Complete 36 hours of class work and a written comprehensive examination after class work has been completed or in the final semester of class work. The comprehensive examination consists of questions from the teaching cognate field and from the required courses in the program core; 2) Complete 36 hours of class work and 6 hours of academic thesis credit on an approved topic; or 3) Complete 36 hours of class work and 6 hours of applied research project credit on an approved topic.

Core Requirements

HIED 7300 Higher Education in the US: An Overview

HIED 8320 The Two-Year College in America

EDFN 7303 Introduction to Educational Research

Electives *

HIED 7302 Introduction to Program Evaluation

HIED 7331 College Instruction

HIED 7350 American College Student

HIED 7360 Practicum in College Student Affairs

HIED 8343 Legal Aspects of Higher Education

EDFN 7313 Learning Theories and Instruction Applications

EDFN 7314 Cognition and Instruction

LSTE 7302 Instructional Technology

LSTE 7310 Interactive Technology (Multi-media)

LSTE 7320 Advanced Instructional Teaching, OR any other 7000 or 8000 HIED or EDFN course

* Other courses may be selected as electives in consultation with the faculty advisor.

EDFN 7314 Cognition and Instruction

LSTE 7302 Instructional Technology

LSTE 7310 Interactive Technology (Multi-media)

LSTE 7320 Advanced Instructional Teaching, OR any other 7000 or 8000 HIED or EDFN course

* Other courses may be selected as electives in consultation with the faculty advisor

Specialization (18 hours)

18 hours in the teaching cognate field

Capstone Experience (select one)

Comprehensive Written Exam

Academic Thesis (6 hours optional credit)

Applied Research Project (6 hours optional credit)

Total program hours: 36

Concentration in College Student Affairs

The mission of the College Student Affairs program is to provide entry-level professional development to qualified individuals who have special interests in college students and the higher education environments that affect development. Graduates of the program are prepared to function effectively in a variety of positions in the field of College Student Affairs in two- and four-year institutions of higher education. In addition, this program enables working professionals to increase their skills, knowledge, and abilities, enabling them to compete for professional positions of increasing responsibility and scope. Program graduates are prepared to assume professional roles as coordinators, directors, and assistant directors in such specialty areas as academic advising centers, admissions, financial aid, career services, disability offices, Greek affairs, judicial affairs, international student programs, minority affairs, orientation programs, offices of residence life, student life/activities offices, and offices of alumni affairs.

The Concentration in College Student Affairs is a 36-hour program, consisting of three components:

1. **Foundational Studies** - the study of the foundations of higher education and student affairs
2. **Professional Studies** - student development theory; student characteristics and effects of college on students, individual, and group interventions; organization and administration of student personnel services in higher education; and assessment, evaluation, and research
3. **Supervised Practice** - consists of one or two semester-long internships/practical in two distinct areas

The program design follows the standards and guidelines for the Council for the Advancement of Standards in Higher Education (CAS) and meets the minimum curricular requirements set by Commission XII of the American College Personnel Association.

Higher Education Core Requirements

HIED 7300 Higher Education: An Overview

HIED 8320 The Two-Year College in America

EDFN 7303 Introduction to Research

Specialization Requirements (18 hours)

HIED 7350 American College Student

HIED 7351 Foundations of Student Affairs

HIED 7352 Student Development Theory

HIED 7354 Student Affairs Programming and Management

HIED 7360 Practicum in College Student Affairs

CNSL 7308 Cross Cultural Counseling

HIED 8353 Assessment and Program Evaluation in Student Affairs

Electives (6 hours)

CNSL 7301 Theoretical Approach to Counseling

EDFN 7313 Learning Theories and Instructional Applications

EDFN 7314 Cognition and Instruction

EDFN 7304 Basic Statistics

HIED 7354 Programming and Management in Student Affairs Administration

HIED 8358 Capstone in Student Affairs

HIED 8356 Organization & Leadership CSA & Master

Capstone Experience (selective)

Comprehensive Written Exam

Thesis (6 hour optional credit)

Portfolio

Total Program Hours: 36

Concentration in Administration

The mission of the Higher Education Administration concentration is to provide academic preparation and professional development to qualified individuals for entry-level positions in administrative leadership in public and private institutions and agencies of higher and postsecondary education. Students will gain knowledge, skills, and competencies essential to serving as leaders in a variety of education settings.

Curriculum

Specialization (18 hours)

HIED 7351 Foundations in College Student Affairs

HIED 8321 Organization & Admin of Two-Year Colleges

HIED 8322 Issues and challenges in Two-Year College Leadership

HIED 7331 College Instruction

HIED 7360 Practicum in Higher Education

LSTE 7330 Distance Learning Systems Technology

Electives (6 hours)

HIED 7302 Introduction to Program Evaluation

HIED 7350 American College Student

HIED 8343 Legal Aspects of Higher Education

HIED 8340 Organizational Behavior and Postsecondary Education

HIED 8341 Financing of colleges and Universities

Capstone Course (3 hours)

HIED 8342 Governance and Policy & Masters comprehensive exam

Total core, specialization, electives, and capstone course & exam =36 hours

Thesis or Project Committees

Students who elect the Academic Thesis or Applied Research Project options must select a supervising committee consisting of three people to oversee and approve their thesis or project work. The committee must consist of one of the following:

- One member as chair who is a member of the Higher Education Program faculty;
- One member from the faculty of the College of Education who is not a member of the Higher Education Program faculty;
- One faculty member from outside the College of Education.

Transfer Courses

In some cases, students may wish to include in their programs a teaching cognate that is not offered by UALR. In those cases, it may be possible for students to earn those hours at another university where the cognate is offered and transfer them to UALR. Students may transfer as many as one-half of the classes required in the MA program. This means that no more than 18 of the 36 hours required for the program may be transferred from another university.

In order to transfer courses to UALR, grades of A or B must have been earned at a regionally accredited university. If the hours in the teaching cognate field were earned more than five years prior to enrolling in the UALR program, students are required to complete at least six additional hours in the cognate as part of the MA program.

Doctor of Education

The program is designed as a highly personalized experience, focusing on each student's specific needs and aspirations. It provides a thorough grounding in the major areas of knowledge relating to higher education as a field of study as well as a broad familiarity with the theory, practice, and scholarship of higher education.

The curriculum may include both cognitive and experiential components as well as structured and independent course work. A strong interdisciplinary element provides flexibility and a broad knowledge base. In many instances, students will complete some of their course work in other fields within or outside the College of Education.

Admission Requirements

Admission is based on a total profile of the applicant's educational and professional background. It is expected that applicants have professional work experience. GRE requirements reflect the November 2011 Guide of the Use of Scores. Unconditional admission requirements include the following:

- Application for admission to the UALR Graduate School
- Master's degree or equivalent in a related field from a regionally accredited institution, original transcripts required
- Cumulative GPA of 3.5
- GRE combined score of 1000 (old GRE score) / 297 (new GRE score) with at least 450 (old GRE score) / 150 (new GRE score) on the Verbal and 450 (old GRE score) / 141 (new GRE score) on the Quantitative sections, and an Analytical Writing score of 4.5
- Three years of successful professional experience, or equivalent, in an area related to the degree program
- College of Education Biographical Data Form
- Interview with and approval of the Higher Education faculty

Conditional Admission

Conditional admission requirements include the following:

- A master's degree with a graduate GPA of 3.5 or above (required standard);
- A score of 400 (old GRE score) / 146 (new GRE score) or above on the verbal section of the Graduate Record Examination (GRE);
- A score of 450 (old GRE score) / 141 (new GRE score) or above on the quantitative section of the GRE;
- A score of 3.50 or above on the analytical writing section of the GRE.

To succeed in graduate-level work, research, or publications may be required. Program faculty may request documentation, including the following: official transcripts from all post-master's studies, successful graduate course work from an accredited university, examples of academic and professional work, writing samples, statements of purpose, and letters of support from faculty members or others familiar with the applicant's capability for doctoral-level work.

The Higher Education Program Admissions Committee will review and evaluate the documentation. Conditionally admitted students will be allowed to enroll in up to 12 semester hours. Upon completion of 12 semester hours in the program, the Admissions Committee will review the work completed to the point by the applicant as part of the overall admissions application to determine if the student will be granted regular admission to the program. Changing admission to regular status will be contingent upon the student successfully completing course work to be determined with Higher Education Program Advisor with a minimum 3.5 GPA.

Conditional admission does not guarantee regular admission to the Ed.D. program in Higher Education. Students who are not granted regular admission to the doctoral program will not be permitted to enroll in Higher Education courses beyond the prescribed 12 hours of conditionally admitted course work, but may be allowed admission to the M.A. in Higher Education.

Program Requirements

The higher education degree requires a minimum of 99 graduate hours, usually 63 to 69 hours beyond the 36-hour master's degree. (Most students will complete more than the minimum 99 hours.) The requirements include 21 core hours (research competencies, education and higher education competencies), 27 specialization area hours, 15 dissertation hours, and a comprehensive examination as well as fulfillment of the College of Education residency requirement. Students develop, with their committees, a program of study that addresses their individual interests and needs.

Students are expected to develop a thorough grounding in the major divisions of knowledge relating to higher education as a field of study (e.g., history, administration, law, student affairs). In addition, they develop a broad familiarity with the theory, practice, and scholarship of higher education.

The written comprehensive exam is taken after completion or during the final semester of course work and is followed by an oral comprehensive exam. Following successful completion of both components of the comprehensive exam, students develop a proposal for their dissertation. The required dissertation and oral defense develops research capacity and a working familiarity with research in the student's specialization area. Research competency and literacy are demonstrated in the design and conduct of a study that makes a substantive contribution to the field.

Residency Plan

All requirements for the doctoral degree must be completed within seven consecutive years of enrollment in the program. Each Ed.D. student must file a residency plan for fulfilling a residence requirement that demonstrates a commitment to the program through continuous and intensive enrollment at UALR.

Students consult with their advisors to choose one of three residency options at least twenty class days before the end of the first semester of the planned residence period. Residency hours must be in degree-related graduate courses. Requirement options are:

9 hours in each of 2 consecutive semesters, Fall-Spring or Spring-Fall

9 hours in a Spring or Fall semester and 9 hours in adjacent Summer terms

6 hours minimum in each enrollment period over 4 consecutive semesters with 24 total hours over 24 consecutive months (summer enrollment is not required but if it is included the student must enroll in at least 6 hours of course credit.)

Education/Higher Education Core

HIED 8301 History and Philosophy of Higher Education

HIED 8303 Leadership Theories in Higher Education

HIED 8399 Dissertation Seminar

Research Core

EDFN 7304 Basic Statistics (students without a research course in their Master's program must complete Educational Foundations 7303 first)

EDFN 8305 Intermediate Statistics

EDFN 8306 Advanced Research Methods and Techniques

EDFN 7373 Qualitative Research Methods

Doctoral Concentration Areas and Requirements

Concentrations are offered in higher education administration, student affairs administration, two-year college leadership, and faculty leadership. Each student will be assigned to work with an advisor to design a plan of study that reflects previous studies and professional experience, while focusing on discrete areas of study that serve the student's intellectual and professional needs and interests.

Requirements for Administration Concentration

Area of Specialization: 27 hours

HIED 8340 Organizational Behavior in Higher and Postsecondary Education

HIED 8341 Financing of Colleges and Universities

HIED 8342 Governance and Policy Making in Higher Education

HIED 8343 Legal Aspects of Higher Education

Electives: 6 hours of general electives

Electives: 9 hours (3 hours each from each of the other three specialty areas)

Dissertation: 15 hours

Requirements for Two-Year College Leadership Concentration

Area of Specialization: 27 hours

HIED 8320 The Two-Year College in America

HIED 8321 Organization and Administration of Two-Year Colleges

HIED 8322 Issues and Challenges in Two-Year College Leadership

HIED 8340 Organizational Behavior in Higher and Postsecondary Education

HIED 8341 Financing of Colleges and Universities

HIED 8342 Governance and Policy Making in Higher Education

HIED 8343 Legal Aspects of Higher Education

Electives: 6 hours

Dissertation: 15 hours

Requirements for Student Affairs Administration Concentration

Prerequisites (if master's degree is not in Student Affairs)

HIED 7351 Foundations of Student Affairs

HIED 7352 Student Development Theory

Area of Specialization: 27 hours

HIED 8343 Legal Aspects of Higher Education

HIED 8345/ HIED 8357 Seminar: Topic in Student Affairs Administration

HIED 8350 The American College Student

HIED 8353 Assessment and Program Evaluation

HIED 8358 Capstone Seminar in Student Affairs

Electives: 9 hours (3 hours each from each of the other three specialty areas)

Electives: 3 hours of general electives

Dissertation: 15 hours

Requirements for Faculty Leadership Concentration

Area of Specialization: 27 hours

HIED 8330 College Teaching Problems and Issues

HIED 8332 Curriculum Design in Higher Education

HIED 8341 Financing of Colleges and Universities

HIED 8342 Governance and Policy Making in Higher Education

Cognate courses: 6 hours (equivalent to UALR College of Education 7000-level or 8000-level courses)

Electives: 9 hours (7000-level or 8000-level courses in Higher Education or Educational Foundations)

Dissertation: 15 hours

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above
- Successfully passing the comprehensive examinations
- Successful completion and oral defense of an acceptable dissertation

Courses in Higher Education

HIED 7300 Higher Education in the United States: An

Overview

Prerequisite: graduate status. (Serves as introduction to the master's program and is a requirement for the doctoral program for students lacking background and experience in higher education.) American system of higher education; problems, issues, trends.

HIED 7331 College Instruction

Prerequisite: graduate status. Capstone college teaching experience. This course addresses the theory and practice of effective college teaching. Students examine learning styles, their assessment, and how to accommodate them in the classroom. Philosophies and methods of the professorate are studied.

HIED 7347 Practicum: Health Professions Teaching/Learning

Prerequisites: HIED 7331, HIED 8332, EDFN 7313, EDFN 7370. Independent supervised teaching or research practicum for students in the Health Professions Education MA program concentration. Students will assist in teaching a credit-bearing course in the Health Professions or will complete and disseminate an original empirical research study on Health Professions education.

HIED 7348 Internship: Health Professions Teaching/Learning

Prerequisites: HIED 7331, HIED 8332, EDFN 7313, EDFN 7370. Independent supervised teaching internship for students in the Health Professions Education MA program concentration. Students will have primary instructional responsibility for a credit-bearing course in the Health Professions and complete a teaching portfolio.

HIED 7349 Thesis: Health Professions Teaching/Learning

Prerequisite: Completion of 3 hours of HIED degree requirement or consent of instructor. Masters students will demonstrate theoretical knowledge and methods of education research to complete and defend an original thesis project.

HIED 7351 Foundations in College Student Affairs

Introduction to the student personnel profession/student affairs profession, the roles and functions of professionals in the field, the populations served, the college and university settings where the profession is practiced, the skills and competencies necessary to be a professional in the field, and awareness of current issues regarding students and student personnel in higher education.

HIED 7352 Student Development Theory

Introduction to the theoretical framework that serves as a basis for the professional practice of student affairs in higher education. Developmental orientation that emphasizes the value and importance of individual major theories of student development, the role of student developmental theoretical perspectives.

HIED 7354 Programming and Management in Student Affairs Administration

A capstone experience for the Master's track in student affairs. A forum for integration, synthesis, and application. Emphasis in clarifying student development for students and for a campus. Examines new issues and concepts (e.g. legal issues, budget and finance). Integrates previous course work and practical experiences.

HIED 7360 Practicum in Higher Education

Prerequisites: HIED 7300. Supervised professional experience in the various offices/agencies that comprise a total program of student personnel services within a post-secondary, college, or university setting. Integrates course work with experience in a prearranged, structured setting in any number of student affairs/student service offices/agencies, two-year college instructional settings, or two- or four-year college or university administrative settings. Students complete either 150 or 300 hours of experience under both faculty and on-site supervision.

HIED 8145-8645 Seminar

Prerequisite: graduate status. Specialized study of areas of significance in higher education; possible topics include student financial assistance, admission and records, academic advisement, residence life, institutional research, student center organizations, development and fundraising, current issues, etc.

HIED 8160, 8260, 8360 Practicum in Higher Education

Prerequisite: graduate status, consent of advisor and practicum supervisor. Supervised work or study in an area the student has studied.

HIED 8161, 8261, 8361 Workshop

Prerequisite: consent of instructor. Practical, concentrated (from a few hours to a week) consideration of selected topics of current interest to practitioners.

HIED 8330 College Teaching: Problems and Issues

Prerequisite: EDFN 7373 and EDFN 8306. Examines faculty roles as teachers, scholars, and researchers; explores the existing theory, research, and practice on college teaching and applies it to problems and issues in college teaching; discusses contextual issues influencing teaching and learning.

HIED 8332 Curriculum Design in Higher Education

Prerequisite: EDFN 7373 and EDFN 8306. This course will address curriculum issues in a variety of postsecondary settings, and the primary focus is undergraduate programs, including liberal, general, occupational, and professional education. The course is designed for faculty, administrators, and researchers who are interested in curriculum planning, evaluation and revision, instructional design, or academic staffing.

HIED 8333 College and University Faculty

Prerequisite: EDFN 7373 and EDFN 8306. Exploration of the existing data and theory on college and university faculty. A chronological approach in considering how recruitment to the profession occurs, the socialization process is involved, the preparation of future professors takes place, and similar topics.

HIED 8340 Organizational Behavior in Higher & Post Secondary Education

Prerequisite: graduate status. Management, leadership, administration of higher education institutions; literature about the administration of higher learning; may focus individual study on two- or four-year public or private institutions.

HIED 8341 Financing of Colleges and Universities

Prerequisite: EDFN 8306 and EDFN 7373. Processes, policies, and issues in higher education funding; funding sources and use, revenue and expenditure categories; budget priorities, development and analysis, and financial management reporting; roles and authorities of institutions, states, and federal government in financing higher education.

HIED 8342 Governance and Policy Making in Higher Education

Prerequisite: EDFN 8306 and EDFN 7373. Shared governance, roles, and authorities of internal and external governance participants; policy analysis and development, policy making for higher education at the institutional, state, and federal levels; unique character of lay governance in the roles and authorities of lay governing and coordinating boards in the U.S.

HIED 8343 Legal Aspects of Higher Education

Prerequisite: graduate status. Legal rights, responsibilities of faculty, students, staff, administrators, governing board members.

HIED 8344 Legal Aspects of Teaching

Prerequisite: graduate status. Examines the legal issues of interest to higher education faculty members. Areas of focus include academic integrity, student rights and responsibilities, intellectual property rights, fair employment, due process, tenure, affirmative action, and legal liability. Court cases, statutes, the Constitution, and regulations serve as the basis for discussion.

HIED 8350 The American College Student

Examination of the nature and characteristics of contemporary and historical college student populations in American post-secondary and higher education. Explores the effects of different institutional environments on student outcomes and psychological development, as well as a variety of research methods.

HIED 8353 Assessment and Program Evaluation in Student Affairs

An overview of evaluation as an inquiry process and will examine the philosophy and practice of assessment and evaluation in higher education. Examines the usefulness and appropriateness of various program evaluation methodologies (quantitative and qualitative), theories of evaluation practice and use, and theories of valuing in college student affairs. Explores these and other issues shaping contemporary evaluation practices.

HIED 8358 Capstone Seminar in Student Affairs

Enhances student understanding of administrative leadership through the examination of questions and issues related to the management of student affairs. Broadens student perspective through discussion and debate. Increases the degree to which student experiences, knowledge, and values are effectively integrated, and to allow students to personally examine ideas, test assumptions, express opinions, and recognize the accountability associated with presentation.

HIED 8370 Policy and Politics in Higher Education

Prerequisites: Doctoral Status. This course focuses on the relationship between higher education institutions and public policy. Issues to be addressed include legal, academic, financial, and governance accountability to local, state, federal, and other external agencies. Students will consider examples of how the political process impacts higher education policy making and how higher education institutions influence the political process

HIED 8390 Research Practicum in Higher Education

Prerequisites: HIED 8311, EDFN 8383 and EDFN 8308. Supervised independent study for students in the Higher Education doctoral program. Students will conduct an original empirical research study, submit a manuscript for major peer-reviewed journal review, and prepare a research proposal for national conference presentation.

HIED 8397, 8697 Internship

Prerequisite: graduate status, consent of instructor and internship supervisor. Supervised field experience in college or university setting provides work experience putting theory into practice.

HIED 8399 Dissertation Seminar

Prerequisite: consent of instructor, student's doctoral chair. (Open only to doctoral students.) Formulation of topic for dissertation research; development of dissertation prospectus in form satisfactory to student's doctoral committee.

HIED 9199-9999 Dissertation

Prerequisites: consent of committee chair. Development of doctoral-level research paper or field-based project.

HIED 9390 Dissertation Colloquium

Prerequisite: dissertation prospectus approved. Development of various components of doctoral-level dissertation.

Dickinson Hall, Room 419

(501) 569-3267

Master of Education in Learning Systems Technology

The Master of Education in Learning Systems Technology (LSTE) program's mission is to prepare instructional designers and learning scientists for careers in public schools, community colleges, higher education institutions, business, industry, government, military, and medical settings or facilities. Specifically, the program enables instructional designers to act in teaching and administrative roles in order to analyze problems and apply solutions for learning, including planning, preparation, implementation, evaluation, and management. Aspects of the program include the psychology and development of diverse learners, learning resources development and application, and societal concerns pertaining to instructional technology.

The program includes three major areas in instructional technology: 1) Instructional program development: consideration of the broad problem of developing a complete system of instruction, a total application of technology, and mediated instruction to facilitate learning; 2) Educational technology product development: the practice of creating packages of mediated instruction and the translation of specific instructional objectives into concrete items that facilitate learning; and 3) Educational technology management: an investigation of support services for both instructor and learner; considers principally a "responsive" service; includes aspects of location, selection, acquisition, organization, storage, retrieval, distribution, and maintenance of both materials and devices. For more information on the LSTE program, visit ualr.edu/med/LSTE/.

Admissions Requirements

All applicants for both regular and conditional admission must submit a Biographical Data Form and two letters of recommendation.

Regular Admission (additional requirements)

- Baccalaureate degree from a regionally accredited institution with a cumulative grade point average (GPA) of at least 3.0 (4.0 scale),
or
- GPA of at least 3.25 for the last 60 hours of undergraduate courses,
or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.25

Conditional Admission (additional requirements)

- Baccalaureate degree from an accredited institution with a cumulative undergraduate GPA of no lower than 2.75,
or
- Completion of at least 9 semester hours of graduate course work in another UALR graduate program or a graduate program from another accredited college or university with a cumulative GPA of at least 3.0

Program Requirements

Performance Requirements

- A minimum score of B is required for each of the required courses in the program study.
- A required course with a grade of C does not satisfy the degree requirement and must be repeated.
- All students must maintain a cumulative GPA of 3.00 to be in good standing in the program.
 - Those not maintaining at least a GPA of 3.00 will be placed on academic probation.
 - Students who fail to remove the probationary status by raising their cumulative GPA to 3.00 or better within the UALR Graduate Catalog

next 12 credit hours are subject to dismissal from the LSTE program.

- Deviation from the degree plan requires the approval of the LSTE coordinator.

Educational Foundations Required Courses (9 hours)

EDFN 7313 Learning Theory and Instructional Applications

EDFN 7314 Cognition and Instruction

EDFN 7370 Educational Assessment (Required beginning Spring 2014)

Learning Systems Technology Required Courses (21 hours)

LSTE 7303 Foundations of eLearning

LSTE 7304 eLearning Environments and Education

LSTE 7307 Research in Human-Technology Interaction

LSTE 7311 Introduction to Instructional Design

LSTE 7315 Instructional Design: Accessible and Universal

LSTE 7317 Mobile Learning Environments

LSTE 7323 Advanced Instructional Design

Possible Electives chosen from the following: (6 hours)

LSTE 7313 Perception, Meaning, and Messages

LSTE 7316 Applied Theories of Instructional Design

LSTE 7329 Trends in eLearning

EDFN 7302 Introduction to Program Evaluation

OR EDFN 7303 Introduction to Educational Research

EDFN 7304 Basic Statistics

EDFN 7308 Multicultural Education Trends and Issues

EDFN 7330 Human Development

RHET 5302 Technical Reports

RHET 5304 Technical Style and Editing

RHET 5375 Grant Writing

Other (requires prior approval by the advisor)

Graduation Requirements

- Successful completion of approved program of study
- Passing the comprehensive exam or successfully defending a portfolio presentation

Courses in Learning Systems Technology

LSTE 7101, 7200, 7300 Independent Study

Designed to be variable in credit and emphasis depending on the interests of the learner and the expertise of the faculty member in the general area of Learning Systems Technology, primarily devoted to subjects of an evolving nature.

LSTE 7101, 7201, 7301 Workshop in Learning Systems Technology

To meet special needs of students. Offered on demand

LSTE 7303 Foundations of eLearning

LSTE 7303 is the foundational course that explores the connections between educational psychology and the pedagogy of effective instruction in society. Instructional interventions and their potential improvement of society through the application of eLearning tools are surveyed.

LSTE 7304 eLearning Environment and Education

LSTE 7304 explores technology-based eLearning environments within a framework that aligns purpose, pedagogy, and assessment practices. Candidates will learn how to identify the correct technological tools based on the learning activity. Develop pedagogical practices that support the use of the tool(s) identified, and align assessment practices that correctly measure the desired learning outcomes.

LSTE 7305 Survey of Computer-based Learning Systems

Prerequisite: LSTE 7303. Applications of microcomputers in the educational setting; includes parameters of microcomputers, standard and predicted uses in instruction. Offered all terms.

LSTE 7306 Digital Photography and Learning Systems

Prerequisite: LSTE 7303. Concepts, theoretical foundations for production, use of still photography in the educational process; students photograph, process, arrange pictures for instructional applications. Three hours lecture / demonstration. Offered in fall and summer I.

LSTE 7307 Research in Human-Technology Interaction

Candidates will participate in a broad graduate-level introductory course of HTI research. The course begins with seminal work on interactive systems and moves through current and future research areas in interaction techniques and the design, prototyping, and evaluation of user interfaces.

LSTE 7308 Digital Television and Learning Systems

Prerequisite: LSTE 7306. Concepts, theoretical foundations for production, use of instructional television, videotape in the educational process; students write, produce five instructional units in video delivery system format. Three hours lecture / demonstration. Offered in spring and summer II.

LSTE 7309 Administration of Learning Systems Technology

Prerequisites: LSTE 7303, 7305, 7310, 7320. Problems, responsibilities in establishment, maintenance, improvement of educational media services in public schools, colleges, businesses, industries, medical professions. Offered in spring and summer II.

LSTE 7310 Systematic Integration of Technology in Learning Systems

Prerequisites: LSTE 7303, 7305; EDFN 7313, 7314. Production, application of interactive instructional units where the microcomputer is the controlling medium for such peripherals as laser disk players and CD-ROM units.

LSTE 7317 Mobile Learning Environments

Candidates in LSTE 7317 develop technical, instructional, and design skills to create effective interactive educational programs for a mobile learning environment. The course applies basic principles of mobile learning to just-in-time training environments that provide ample opportunity for team building and collaboration. Management, development, and creation of mobile learning content are discussed.

LSTE 7320 Intranet and Internet Learning Systems

Prerequisite: LSTE 7303, 7305. New media technologies, application to education; emphasis on instructional use of cable television, videotext, facsimile, satellites, optical disc, interactive video, microforms, data bases. Offered in fall and summer.

LSTE 7325 Assessment in Learning Systems Technology

Prerequisites: LSTE 7303, EDFN 7313, EDFN 7314. This course presents a variety of strategies for assessment of learning by examining the purposes for collecting student achievement data, measurement, concerns in technology rich environments, and practical interpretations and applications of assessment data.

LSTE 7329 Trends in eLearning

Prerequisite: LSTE 7311. LSTE 7329 explores trends in eLearning for instructional purposes, including but not limited to gaming and simulations. The class includes the analysis of the appropriate kinds of activities to support different learning outcomes and the demonstration and discussion of how instruction and assessments align.

LSTE 7330 Distance Learning Systems Technology

Prerequisites: LSTE 7303, LSTE 7305, EDFN 7313, EDFN 7314. This course presents the current choices in what is termed "distance education." The creation of at least one course to be delivered via one of the major distance learning strategies will be required.

LSTE 7350 Internship

Prerequisites: all required program courses. Students work 150 clock hours at a professional instructional media site (public school, industry, business, etc.) for practical on-the-job experiences in the three major specialty areas of instructional program development, media product development, and media management.

LSTE 7360 Seminar

Prerequisite: LSTE 7303. Trends, problems of current, emerging technology pertaining to instruction. Offered on demand.

CURRICULUM AND INSTRUCTION

Dickinson Hall, Room 419

(501) 569-3410 or 569-8930

ualr.edu/teachered/index.php/home/programs/curriculum_med/

Master of Education in Curriculum and Instruction

The Master's of Education in Curriculum and Instruction is designed for licensed teachers. The program is individualized to meet teachers' personal professional goals. In Reflective Teaching, teachers define their goals and assess their current level of competence. In addition, the program is aligned with the National Board Certification. Requirements for the degree include a minimum of 36 hours and culminate in a lab digital portfolio. Students must satisfy graduation requirements stated in the Academic Regulations section of the Graduate Bulletin and programs found in the College of Education and Health Professions section. The university reserves the right to modify policies and programs of study by supplying students with written notices of changes.

Admission Requirements

All applicants must have:

- Baccalaureate degree from a regionally accredited institution with a cumulative GPA of at least 2.75 (4.0 scale),
- or
- Grade point average of 3.0 for the last 60 hours of undergraduate courses,
- or
- Grade point average of 3.0 in the content major,
- or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least a 3.0
- Hold or be qualified to hold a valid teaching license

Conditional Admission

- Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than 2.5; and a Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale, 141 on the Quantitative Scale, and 3.5 on the Analytical Writing Scale,
- or
- Completion of at least 12 semester hours of graduate course work in another UALR graduate program or a graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Program Requirements

Professional Education Requirements (12 hours)

TCED 7303 Reflective Teaching

EDFN 7303 Intro to Research in Education (or approved discipline-based educational research course)

SCED 7304 Action Research Project

TCED 7301 Curriculum: History and Issues

Competence Requirements (12 - 15 hours)

Candidates are required to demonstrate competence in the areas listed below:

- Competence to students and their learning (3): EDFN 7313 or EDFN 7330
- Mastery of content and content pedagogy: see concentration
- Managing and monitoring student learning (6): EDFN 7370 and TCED 5300 Workshop
- Technology (3): TCED 5300 Workshop (or demonstrate proficiency: classroom communication and diversity)

Required Concentration(s) (12 hours)

Candidates are required to complete a concentration of at least 12 hours in a content area, an area of education, or in an approved interdisciplinary area.

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study of at least 36 hours as outlined above
- Portfolio presentation

READING

Dickinson Hall, Room 300

(501) 569-3124

Programs offered: Reading Recovery Teacher, Reading Recovery Teacher Leader, Literacy Intervention Specialist Graduate Certificate, Literacy Coach Specialist Graduate Certificate, Master of Education, Educational Specialist, and Doctor of Philosophy

The Reading Education Program in the UALR College of Education and Health Professions offers the following programs and degrees to meet the needs of teachers progressing along their career pathway.

Training Programs	Graduate Certificates	Graduate Degrees
Reading Recovery Teacher	Literacy Intervention Specialist Graduate Certificate	Master of Education in Reading [M.Ed.]
Reading Recovery Teacher Leader	Literacy Coach Specialist Graduate Certificate	Educational Specialist in Reading [Ed.S.]
		Doctor of Philosophy in Reading [Ph.D.]

Training Programs

Reading Recovery Teacher

UALR is a certified University Training Center for preparing Reading Recovery teachers. The training program is regulated by the Guidelines and Standards for preparing Reading Recovery Educators. Upon acceptance to the UALR Reading Recovery Teacher-Training program, the candidate completes 6 credit hours of specialized Reading Recovery course work. In Year 1, the candidate receives training as a Reading Recovery Teacher. In Year 2, the candidate receives training in the K-6 small group intervention model.

Required Courses (6 hours):

- READ 7342 Principles of Literacy and Cognition I
- READ 7343 Principles of Literacy and Cognition II

Reading Recovery Teacher Leader

To be accepted for training, the Reading Recovery Teacher Leader candidate must meet all criteria established by the Reading Recovery Guidelines and Standards including an application process and a letter of commitment from the employer. Reading Recovery Teacher Leader candidates participate in an 18 credit hour program of study, including an internship in Arkansas schools.

Required Courses (21 hours)

- READ 7342 Principles of Literacy and Cognition I
- READ 7343 Principles of Literacy and Cognition II
- READ 7344 Intervention Designs for Struggling Readers
- READ 8340 Research in Language and Literacy
- READ 7398 Theory and Practice in Literacy
- READ 8301 Supervision and Organization of Reading Programs
- READ 8302 Professional Experience in Reading Programs

Additional information on the Reading Recovery Training programs can be obtained at the UALR Center for Literacy website at ualr.edu/literacy.

Graduate Certificates

The Reading Education Program offers two graduate level certificates: the Literacy Intervention Specialist Graduate Certificate and the Literacy Coach Specialist Graduate Certificate. Both programs include an 18 credit hour program of study for preparing candidates for the specialized roles aligned with the International Reading Association.

Graduate Certificate Admission Requirements

All applicants for both regular or conditional admission status must have:

- Valid teaching license (Arkansas or other state)
- Favorable recommendations from faculty in the program

Specific admission criteria for regular or conditional admission:

Regular Admission	Conditional Admission
Baccalaureate degree from a regionally accredited institution with a cumulative grade point average of at least 2.75. (4.0 scale)	Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than 2.5; and a Graduate Record Exam (GRE) score of at least 141 on the Verbal Scale, 150 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale.
or	or
Grade point average of at least 3.0 for the last 60 hours of undergraduate courses.	Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.
or	
Master's degree from a regionally accredited institution with a cumulative grade point average of at least 3.0.	
Please note: the master's degree requirement above is required for entry into the Literacy Coach Specialist program, as it is a post-master's program.	

Literacy Intervention Specialist

The Literacy Intervention Specialist Graduate Certificate is an 18 credit hour post-baccalaureate program for teachers who are enrolled in or have completed the Reading Recovery Training Program. The certificate is designed to prepare candidates for the specialized role of intervention specialist. The courses focus on teaching struggling readers, including diagnosis of early reading difficulties, designing interventions for working with struggling readers individually and in small groups, and creating a comprehensive intervention model for literacy improvement. Candidates must complete 9 hours of required courses and 9 hours of approved electives.

Required Courses (9 hours)

READ 7344 Intervention Designs for Struggling Readers

READ 7345 Advanced Practicum in Intervention Models

READ 7354 Content Area Literacy

Elective Courses (9 hours)

READ 7340 Best Practices in Literacy Instruction

READ 7342 Principles in Literacy & Cognition I

READ 7342 Principles in Literacy & Cognition I

READ 7395 Comprehensive Literacy Model for School Improvement

READ 7365 Specialized Assessment in Early Literacy Instruction

READ 7352 Diagnosis of Reading Difficulties

READ 7330 Children's Literature Across the Curriculum

READ 7397 Creating Literate Environments for Young Learners

READ 7393 Special Topics: Advanced Studies in Literacy Intervention

Literacy Coach Specialist

The Literacy Coach Specialist Graduate Certificate is an 18 credit hour post-master's program. The certificate is designed to prepare the reading specialist with a background in the Comprehensive Literacy Model for the unique role of literacy coach in today's schools. Aligned with the International Reading Association Standards for Reading Professionals, the program of study focuses on three major areas: 1) instruction, 2) assessment, and 3) leadership. An emphasis is placed on supervising and coordinating a school's literacy program, including providing professional development, coaching teachers, designing curriculum, teaching struggling readers, and conducting research on literacy and school change. Additional information on the Literacy Coach Specialist program can be obtained from the UALR Center for Literacy website at ualr.edu/literacy. The courses for the Literacy Coach Specialist graduate certificate can be applied toward an advanced degree in reading education.

Required Courses (18 hours):

- READ 7398 Theory and Practice in Literacy
- READ 8301 Supervision and Organization of Reading Programs
- READ 8302 Professional Experiences in Reading
- READ 8305 Literacy Coaches as Agents of Change
- READ 8304 Curriculum Design and Evaluation
- READ 7395 Comprehensive Literacy Model for School Improvement

Literacy Coach Specialist Graduation Requirements

To complete the requirements for the Literacy Coach Specialist graduate certificate, candidates must:

- Successfully complete the 18 credit hour program of study with a minimum GPA of 3.0.
- Successfully defend a Literacy Coach Portfolio that demonstrates proficiency in program areas.

Graduate Degrees

UALR College of Education and Health Professions offers three graduate degrees in Reading, enabling educators to significantly increase their knowledge, skills, and dispositions in the field of literacy education as well as to pursue a variety of important professional roles in literacy throughout the educational world.

Master of Education in Reading

The Master of Education in Reading focuses on preparing candidates for licensure as reading specialists, effective literacy educators, or intervention specialists. The M.Ed. program of study emphasizes the relationship between theory, research, and practices in literacy education. The M.Ed. in Literacy program meets NCATE, Arkansas Department of Education, and International Association standards.

For more information about the M.Ed. Reading program, visit ualr.edu/eds/rdng.

M.Ed. Admission Requirements

All applicants for both regular and conditional admission status must have:

- A valid, initial or standard teaching license (Arkansas or other state)
- Favorable recommendation as a result of an interview with Reading program faculty
- Two letters of recommendation from professors, colleagues, or administrators

All applicants are responsible for securing information related to state licensure as a reading specialist (Arkansas or other state) to ensure that they meet state licensure requirements during or after the completion of course work toward the degree.

M.Ed. Program Requirements

Core Requirements (15 hours)

- READ 7351 Foundations of Teaching Reading

READ 7352 Diagnosis of Reading Difficulties
READ 7327 Contemporary Curriculum Design
EDFN 7303 Introduction to Educational Research
READ 7306 Literacy and Technology

Concentrations (12 hours; Select One.)

Reading Specialist*

READ 7354 Literacy in the Content Areas
READ 7356 Practicum in Reading
READ 7357 Seminar in Reading
READ 7370 Advanced Practicum in Reading

Literacy & Culture

READ 7310 Literacy, Language and Culture
MCED 7316 Adolescent Literature
READ 7348 Teaching Writing Process in Schools
READ 7354 Literacy in the Content Areas

Intervention

READ 7340 Best Practices In Literacy Instruction
READ 7344 Intervention Designs for Struggling Readers
READ 7345 Advanced Practicum in Intervention Models
READ 7354 Literacy in the Content Areas

Electives (9 hours; Electives may include courses from any concentration.)

READ 7307 Special Topics in Literacy
READ 7330 Children's Literature Across the Curriculum
READ 7321 Processes and Strategies in Reading
READ 7397 Creating a Literate Environments for Young Learners
READ 7361 Language and Reading Instruction
READ 7365 Specialized Assessment in Early Literacy Instruction
READ 7395 Comprehensive Literacy Model for School
READ 7342 Principles of Literacy and Cognition I
READ 7343 Principles of Literacy and Cognition II

***Reading Specialist Licensure**

After completion of the M.Ed. program, the Arkansas Department of Education requires individuals seeking Reading Specialist certification meet the following criteria:

- Pass the Praxis II Reading Specialist Exam
- Three (3) years teaching experience

M.Ed. Retention Requirements

Once admitted, candidates are required to maintain an overall grade point average of 3.0 with at least a grade of C in all Reading Education (READ) courses in order to continue in the M.Ed. Program.

Throughout completion of course work, program faculty monitors candidates' performance, professional behaviors, and dispositions. When needed, candidates may be required to participate in professional development conferences. Successful advancement in the program is not based solely on the number of credits earned; it also requires demonstration of professional knowledge, skills, and dispositions.

M.Ed. Graduation Requirements

- Completion of 36 hours of program course work
- 3.0 or higher cumulative grade point average on program course work
- Pass a comprehensive examination that covers program areas.
- Pass the Praxis II Reading Specialist Exam (for Reading Specialist Concentration only).

Educational Specialist in Reading

Ed.S. Admission Requirements

All applicants for both regular and conditional admission status must have a valid, initial or standard teaching license (Arkansas or other state).

Regular Admission	Conditional Admission
Master's degree from a regionally accredited institution with a cumulative grade point average of at least 3.3	Graduate Record Exam (GRE) score of at least 150 on the Verbal Scale, 141 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale
	or
	Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B

Ed.S. Program Requirements

The Ed.S. in Reading requires a minimum of 36 hours beyond the master's degree, including 6 hours in research, 15 hours of emphasis requirements in reading, and 9 hours of reading electives. The candidate is expected to design and implement a research project as a culminating experience. Two research options meet this requirement: 6 hours of thesis, or 3 hours of research practicum and 3 hours of scholarly writing. Additional exit requirements include the successful completion of an electronic portfolio in Chalk and Wire and a passing score on a comprehensive written examination.

Prerequisite Requirements

If the candidate did not complete a research course in the master's program, the candidate will be required to complete EDFN 7303 Intro to Research (or equivalent course) prior to enrolling in 7304 Basic Statistics.

If the candidate does not have a reading license or a master's in reading, the candidate will be required to complete a minimum of 6 hours of prerequisite course work in foundations of teaching reading and diagnosis in reading difficulties or equivalent course work.

Common Requirements (6 hours)	READ 7345 Advanced Practicum in Intervention READ 7348 Teaching the Writing Process in Schools READ 7354 Literacy in the Content Areas READ 7365 Specialized Assessment in Early Literacy Instruction READ 7395 Comprehensive Literacy Model for School Improvement READ 7397 Creating Literate Environments READ 8305 Literacy Coaches as Agents of Change Required Options (6 hours) READ 8348 Scholarly Writing in Literacy READ 8349 Research Practicum in Literacy or READ 8350 Thesis I * READ 8351 Thesis II*
EDFN 7304 Basic Statistics EDFN 8306 Advanced Research Methods or EDFN 7373 Qualitative Research	
Emphasis Requirements (15 hours)	
READ 7398 Theory and Practice in Literacy READ 8340 Research in Language and Literacy READ 8301 Supervision and Organization of Reading Programs READ 8302 Professional Experiences in Reading READ 8304 Curriculum Design and Evaluation of Literary Programs	
Electives (9 hours)	
READ 7321 Processes and Strategies in Reading Comprehension READ 7330 Children's Literature Across the Curriculum READ 7340 Best Practices in Literary Instruction READ 7344 Intervention Designs for Struggling Learners	

*If the student plans to seek a doctorate in reading, Thesis I and II are recommended.

Reading Licensure

The Arkansas Department of Education offers two levels of licensure: elementary and secondary. If candidates do not already have reading certification, they are required to take the appropriate Praxis II examination for certification.

Doctor of Philosophy in Reading

The Doctorate of Philosophy (Ph.D.) in Reading degree is a program of study designed to prepare candidates with the knowledge and expertise to become teacher educators, scholars, and literacy researchers. The Ph.D. in Reading is a research-oriented program of study with rigorous course work in literacy education combined with cognitive apprenticeships in the field and opportunities to collaborate with faculty on scholarly work and research projects. To achieve this goal, candidates must be participants in a professional community where research and scholarly activity are intentionally embedded into the teacher preparation programs. The Center for Literacy in the Department of Teacher Education provides candidates with an infrastructure for

- interacting with researchers and accomplished practitioners through UALR sponsored events, including the annual literacy conference, spring literacy academy, and summer institutes;
- collaborating with faculty on literacy-related research projects;
- using technology for research, assessment, and the dissemination of information; and
- establishing educational partnerships with local, state, and national agencies in order to influence literacy advancements. In the process, candidates are mentored into a service philosophy that views literacy accomplishments as a global responsibility, including the necessary knowledge and dispositions for influencing reading achievement for all learners.

Ph.D. Admission Requirements

Candidates will submit a graduate application to the UALR Graduate School. Admission decisions will be made on a holistic basis to discern the candidate's promise for doctoral study and to ascertain the match of the candidate's educational goals with the resources and goals of the reading program.

- Minimum grade point average of 3.3-3.5 on master's degree or higher
- GRE quantitative score with a minimum score of 141
- GRE verbal score with a minimum score of 150
- GRE analytical writing score with a minimum score of 4.5
- 3 professional letters of recommendation
- Reading faculty interview, including professional goals statement, current curriculum vitae, and other requested evidences of the applicant's promise for doctoral studies

Conditional Admission

If the standard for admission is not met, a conditionally admitted student may enroll in up to 12 semester hours. Upon completion of 12 semester hours in the program, the reading faculty will review the work completed to that point by the applicant as part of the overall admissions application to determine if the student will be granted regular admission to the program. Admission to regular status will be contingent upon the student successfully completing 12 hours of the following course work with a minimum 3.5 GPA:

READ 8320 Phonology, Orthography, and Linguistics

READ 8330 Cognitive and Social Theories in Literacy Learning

READ 8348 Scholarly Writing in Literacy

READ 8349 Research Practicum in Literacy

EDFN 7373 Qualitative Research Methods

EDFN 8305 Intermediate Statistics

EDFN 8306 Advanced Research Methods

Residence Requirements

Residence is defined as a full-time registration for a given semester on the UALR campus. The summer term is included in this period. Two consecutive semesters of residence are required with a minimum of 6 semester hours taken each semester.

Ph.D. Program Requirements

The Ph.D. in Reading requires a minimum of 108 hours (72 hours beyond the master's degree) as determined by student and student's course work advisor. The program of study is organized under four curricular areas:

- Literacy Core;
- Research Core;
- Specialty Area; and
- Dissertation.

The literacy core includes 15 hours of course work that provides candidates with an integrated exploration of seminal theories, key research studies, and historical contributions in reading instruction. The research core includes 15 hours of course work that addresses current information about research design and methods for quantitative and qualitative studies, including statistics and data management.

The specialty area includes 24 hours of course work that provides candidates with a range of options for deepening their knowledge in concentrated areas. The dissertation courses include a minimum of 18 hours of course work that provides candidates with the knowledge and experiences for designing and conducting scholarly research in literacy education. Additional requirements include the successful completion of an electronic portfolio in Chalk and Wire and a passing score on a comprehensive written examination.

Prerequisite Requirements

Reading Prerequisites: If the candidate does not hold a reading license or a Master's in reading, the candidate will be required to complete 9 hours of foundational reading course work, including Foundations of Teaching Reading, Reading Diagnosis (or equivalent courses), and 3 hours of Reading practicum prior to enrolling in any 8000-level reading course work. These hours can be applied as electives in the degree plan.

Research Prerequisites: If the candidate did not complete a statistics or entry-level research class in the Master's or Educational Specialist program, the candidate will be required to complete EDFN 7304: Basic Statistics and EDFN 7303: Introduction to Research prior to enrolling in any 8000-level research or statistics courses (some courses may have other prerequisites, as well). If the candidate did not complete a qualitative research class in the Master's or Educational Specialist program, the candidate will be required to complete EDFN 7373: Qualitative Research Methods prior to enrolling in EDFN 8383: Advanced Qualitative Research Methods.

Literacy Core Requirements (15 hours)

- READ 8320 Phonology, Orthography, & Linguistic Processes
- READ 8330 Cognitive & Social Theories in Literacy Learning
- READ 8342 Reading Comprehension: From Research to Practice
- READ 8345 Theoretical Models and Historical Perspectives
- READ 8399 Doctoral Seminar in Reading

Research Core: (Select 15 hours)

- EDFN 8305 Intermediate Statistics
- EDFN 8308 Advanced Statistics
- EDFN 8306 Advanced Research Methods
- EDFN 8330 Mixed Methods
- EDFN 8383 Advanced Qualitative Research Methods
- EDFN 8310 Applied Measurement in Research and Analysis

Specialty Areas: (Select 24 hours)

- READ 8340 Research in Language and Literacy
- READ 8348 Scholarly Writing in Literacy
- READ 8349 Research Practicum in Literacy

READ 8301 Professional Experiences in Literacy Programs
READ 8302 Supervision and Organization of Reading Programs
READ 8304 Curriculum Design and Evaluation of Literacy Programs
READ 8305 Literacy Coaches as Agents of Change
READ 7321 Processes and Strategies in Reading Comprehension
READ 7330 Children's Literature Across the Curriculum
READ 7348 Teaching Writing in Elementary and Secondary Schools
READ 7395 Comprehensive Literacy Model for School Improvement
READ 7397 Creating Literate Environments
READ 7398 Theory and Practice in Literacy

Dissertation (18 hours)

Following the completion of all course work, the candidate writes a dissertation proposal detailing the intended research and the rationale behind it. The candidate must defend the proposal to the dissertation committee. After approval is granted, work on the dissertation can proceed. The dissertation represents the culmination of an original major research project completed by the student. The candidate may continue to enroll in dissertation beyond the fourth year but must have the dissertation completed prior to the ten-year limit.

READ 9199-9999 Dissertation

Courses in Reading Education

READ 7107, 7207, 7307 Special Topics in Literacy

Special topics in literacy education including, but not limited to, in-depth study of phonemic awareness, phonics, fluency, vocabulary development and / or reading comprehension as they relate to historical and current perspectives at the state and national level. Offered on demand.

READ 7193, 7293, 7393 Special Topics in Reading Education

Prerequisites: graduate standing, consent of instructor. Selected theoretical, research, and practical topics. These courses are used for state initiatives, such as Reading First, ELLA, McRatt, and Effective Literacy. May be repeated for credit. Offered on demand.

READ 7306 Literacy and Technology

Candidates will examine how to integrate new literacies, software, and technology across the curriculum. Candidates will study the strengths and limitations of technology and computer applications for the development and integration of effective technology lessons in a literacy curriculum across content areas.

READ 7310 Literacy, Language, and Culture

Candidates will explore how literacy learning takes place among diverse populations, including second language learners. Candidates explore the role of literature in promoting cross cultural understandings in a student-centered literacy curriculum. Specific topics include selecting literature and learning best practices to create a classroom that promotes social justice and critical literacy.

READ 7321 Processes and Strategies in Reading Comprehension

This course focuses on the processes of reading comprehension, including the influence of perceptions, beliefs, motivation, language, and strategies for understanding. An emphasis is placed on effective questioning, text selection, discourse chains, and environment as ways to promote comprehension.

READ 7326 Developmental Reading

Development of a comprehensive reading program; current practices in reading instruction and assessments; selection of effective materials, and meeting the needs of a diverse population.

READ 7327 Contemporary Curriculum Design

Philosophy, administration, and techniques of curriculum design, including participation in development of a culturally pluralistic curriculum.

READ 7330 Children's Literature Across the Curriculum

This course is based upon current issues, research, and effective practices regarding the use of children's literature across the curriculum. Students will learn how to select quality children's books for use in a variety of content areas; develop respect and appreciation for numerous genres, multicultural literature, authors, illustrators, and poets; and plan lessons that use children's literature to effectively support and enrich instruction in a variety of classroom settings.

READ 7340 Best Practices in Literacy Instruction

The course examines research-based practices in K-12 literacy instruction, including theories of differentiated instruction, reciprocal processing, integrated curriculum, and linguistic diversity.

READ 7342 Principles of Literacy and Cognition I

Course restricted to Reading Recovery teachers-in-training. This course is the first of two courses of teacher training for the Reading Recovery program. It covers the theoretical foundations of a socio-psycholinguistic early intervention model appropriate to meet the needs of students having confusions with reading and writing conventions and includes on-going practical experiences in a school setting. Observation and specialized procedures are emphasized. The rationales and procedures of a short-term intervention program are discussed and practiced.

READ 7343 Principles of Literacy and Cognition II

Prerequisite: Principles of Literacy and Cognition I. Course restricted to Reading Recovery teachers-in-training. This course is the second of two courses of teacher training for the Reading Recovery Program. It covers the theoretical foundations of a socio-psycholinguistic early intervention model appropriate to meet the needs of students having confusions with reading and writing conventions and includes on-going practical experiences in a school setting. Observation and specialization procedures are emphasized. The rationales and procedures of a short-term intervention program are discussed and practiced.

READ 7344 Intervention Designs for Struggling Learners

A course involving supervised practice in intervention instruction for children experiencing difficulty in literacy. The class will focus on differentiating reading and writing instruction within various settings, including supplemental and classroom, for meeting the needs of struggling learners. The course will include techniques for using intervention team meetings to select appropriate services, collaborating with teachers across intervention programs, and using assessment to monitor children's progress.

READ 7345 Advanced Practicum in Intervention Models

Prerequisites: READ 7344 or consent of the instructor. This course is an advanced study of intervention models for children experiencing difficulty in literacy. Candidates will implement a research-based intervention model in a school setting, collect data on the effectiveness of the model, and write a research paper.

READ 7348 Teaching the Writing Process in Schools

The course emphasizes the teaching of the writing process within a writing workshop format, including pre-writing, drafting, revising, editing, and publishing. Additional areas of study will include writing conferences, keeping a writer's notebook, genre writing, evaluating writing, and other issues related to learning to write.

READ 7350 Early Childhood Literacy Instruction and Assessment

This course will focus on the foundations of literacy instruction at the primary level (Pre-K through grade 4). Emphasis will be given to learning to teach through the components of a balanced literacy program and the supporting theories and research. Special attention will be placed on designing and managing literate classroom environments, the importance of selecting and using appropriate texts, developing students' language and literacy skills, and using assessments to guide instruction.

READ 7351 Foundations of Teaching Reading

Psychological dimensions of reading; principles of learning; organizational pattern affecting reading instruction; scope of the reading process; correlates of reading instruction; emphasis on appropriate use of various learning, psycho-linguistic theories in planning reading programs to meet children's needs.

READ 7352 Diagnosis of Reading Difficulties I

Prerequisite or Co-requisite: READ 7351. This course explores the causes of reading difficulties/disabilities, approaches to diagnosis, and appropriate remedial measures. Candidates analyze a variety of assessments, including formal and informal assessment instruments, administer and interpret assessments and make recommendations for appropriate instructional methodologies for specific students.

READ 7353 Diagnosis of Reading Difficulties II.

Prerequisite READ 7352. This course builds on the knowledge and skills acquired in READ 7352. Students plan remediation strategies and programs based on diagnostic information gained from appropriately selected and administered assessments. Offered on demand.

READ 7354 Teaching Reading in the Content Areas

This course focuses on exploring and using reading strategies to support the learning of content material.

READ 7356 Practicum in Reading

Prerequisites: READ 7351, READ 7352. Candidates in this course will be involved in a clinical experience that supports the focus of their professional goals. Students will plan and implement an instructional program for students. The content of the class will include problem solving around the issues related to working in the clinical experience.

READ 7357 Seminar in Reading

Prerequisites: a minimum of 15 hours in reading and consent of instructor. Current issues, influential researchers and theorists in literacy education, and effective practices. Course requires Internet and library searches and a research project. Offered in spring.

READ 7361 Language and Reading Instruction in Early Childhood

Language development programs and reading methods, materials, teaching strategies for preschool and primary-age; relates speaking, listening, writing and reading to instructional strategies; planning administering comprehensive language readiness programs for preschool, primary age students. The course includes formal and informal evaluation techniques for young children; teaching emphasis on discovering children's personal language competencies; multicultural emphasis on dialect and reading. Offered in spring and summer.

READ 7365 Specialized Assessment in Early Literacy Instruction

The course focuses on the principles of early intervention for diagnosing literacy problems for students, including an understanding of emergent literacy and the experiences that support it. Special attention will be placed on designing individualized and group instructional interventions targeted toward those students in greatest need or low proficiency levels, including knowledge of instructional implications of research in special education, psychology, and other fields that deal with the treatment of students with reading and learning difficulties.

READ 7370 Advanced Practicum in Reading

Prerequisites: READ 7352, READ 7356. This is a clinical course that requires a supervised experience in working with struggling literacy learners. Candidates in this course will work with individual students as well as small groups of students. Offered in summer.

READ 7395 Comprehensive Literacy Model for School Improvement

The course is designed as a summer literacy institute for teachers and school teams interested in implementing a comprehensive literacy model, including a framework for literacy, individual and small group interventions, literacy team meetings, assessment walls and progress, school plans, and literacy coaching. The course is a requirement for the Literacy Coach certificate program.

READ 7397 Creating Literate Environments

The course focuses on implementing a workshop approach in reading, writing, and content areas for meeting the needs of all students, including how to use reading strategies to access content knowledge. An emphasis is placed on organizing instruction to include a balance of whole group teaching, small group instruction, and individual conferences. Literacy components are discussed, including the rationale and procedures for implementing mini-lessons, guided reading, literature discussion groups, shared reading, small group assisted writing, and one-to-one conferences.

READ 7398 Theory and Practice in Literacy

This course examines literacy theories and their practical implications for instruction. Theories of knowledge acquisition, literacy processing, assisted performance, and transfer are examined and applied to reading and writing. Students conduct an action research project in a literacy-related area.

READ 8301 Supervision and Organization of Reading Programs

This course focuses on preparing reading specialists and literacy coaches for supervising and organizing a school-wide literacy program, including organizational techniques and instructional approaches. An additional focus is placed on developing the knowledge and skills of a literacy coach in three major areas: coaching teachers, providing professional development to school personnel, and evaluating a school's literacy program.

READ 8302 Professional Experiences in Reading

The course focuses on practical experiences with a literacy program in a school. Requires a minimum of 10 clock hours a week in the appropriate practicum setting, attendance at scheduled seminars, and a portfolio that demonstrates competencies as a reading professional, including conducting literacy team meetings and staff development, coaching teachers, making curricula decisions, and collecting data for school improvement. Supervised internships are required for literacy coaches and other literacy leaders.

READ 8304 Curriculum Design and Evaluation of Literacy Programs

This course focuses on designing and assessing literacy curriculum, including evaluating literacy programs and materials and analyzing their evidence-based rationales, aligning curriculum to state and professional standards, creating activities and rubrics to match curriculum, and using school-embedded professional development to achieve literacy goals.

READ 8305 Literacy Coaches as Agents of Change

This course focuses on the roles and responsibilities of a literacy coach, including specialized techniques and language prompts for scaffolding teachers. An emphasis is placed on observing change over time in knowledge levels and types of self-reflection. Other responsibilities include modeling lessons, conducting team meetings, leading study groups, selecting materials, and collecting and analyzing data for school improvement.

READ 8320 Phonology, Orthography, and Linguistic Processes in Reading

This course focuses on the theories of written language learning, including how phonological and orthographic language systems change over time. Theories and research related to letters, sounds and their relationships, word patterns, and spelling knowledge will be used to plan reading instruction. An emphasis will be placed on the role of texts for stimulating print awareness and developing strategies for integrating multiple sources of information.

READ 8330 Cognitive and Social Theories in Literacy Learning

This course examines theories of cognitive, linguistic, and social learning and their practical implications for teaching students in the elementary and middle grades. A focus is placed on using language as a problem-solving tool for learning about literacy. Research-based components of literacy are examined and applied to the everyday context of teaching and learning.

READ 8340 Research in Language and Literacy Acquisition

This course examines the theories and research on language and literacy acquisition, including the description of methods and techniques employed in literacy research. Students design and conduct a research project in a literacy-related area.

READ 8342 Reading Comprehension: From Research to Practice

This course examines the theories and research on reading comprehension and implications to instructional practice, including cognitive, social, linguistic, and motivational influences in comprehending messages.

READ 8345 Theoretical Models and Historical Perspectives in Literacy

This course examines contemporary models of reading, including information processing, interactive, transactional, psycholinguistic, sociocognitive, and other prominent models of reading. Candidates will trace the history and pertinent influences on the teaching of reading and reading practices from colonial to contemporary times.

READ 8348 Scholarly Writing in Literacy

The course focuses on how to prepare reading candidates to write and publish for a scholarly audience, including setting a writing purpose, conducting a literature review, collecting and analyzing data, and presenting information in the appropriate writing format. The course emphasizes the writing process, including drafting, composing, revising, editing, and publishing stages. Students will submit the final manuscript for publication or for a conference presentation.

READ 8349 Research Practicum in Literacy

This course focuses on preparing students to participate in a faculty-sponsored research project. Students must also complete an individual study, including a manuscript submission and conference presentation.

READ 8350 Specialist Thesis I

Prerequisite: Completion of 27 hours of emphasis requirements or consent of instructor. Orientation to writing a thesis, including preparing a research proposal in the area of reading and conducting an extensive review of related literature in reading research.

READ 8351 Specialist Thesis II

Prerequisite: READ 8351. Completion and defense of thesis project.

READ 8399 Doctoral Seminar

Advanced topics in reading and language arts selected by the instructor in consideration of the needs and interests of doctoral students. Research and seminal works are analyzed and interpreted. Research designs, procedures and findings are discussed. Student must be admitted to Ph.D. program or have permission of instructor.

READ 9199-9999 Dissertation

Prerequisites: Completion of all course work; consent of instructor. Development of a doctoral-level dissertation.

Dickinson Hall, Room 515 G

(501) 569-8937

Master of Education in Adult Education

The Master of Education in Adult Education (ADED) encompasses a broad field, including many interests and competencies, and is not limited to a single discipline, institution, program, or agency. The overall purpose of this UALR graduate program is to prepare present and future leaders for positions of responsibility in diverse educational contexts.

The fields of adult education include professional education (e.g., engineering, medicine, nursing, law), volunteer training, technical education (e.g., community colleges, vocational schools), adult basic education, and in-service education (e.g., business and industry, government). Graduates of UALR's program find positions as learning facilitators, training and program directors, administrators, and curriculum specialists in programs for adults.

The M.Ed. in Adult Education is an intensive professional development experience. Students are self-directed, committed professionals seeking to improve themselves, their work places, their communities, and society. To accomplish this, an individualized program of study is designed with each student, allowing for specific interests, needs, and career goals. The Adult Education program is designed to meet the needs of professionals in any type of lifelong learning environment who wish to continue their education at the graduate level.

The program may lead to Arkansas teacher licensure or may be tailored to meet other professional needs and goals. For more information contact the program website at ualr.edu/med/aed.

Admission Requirements

All applicants for both regular and conditional admission statuses must have favorable recommendations from the Adult Education program coordinator.

Regular Admission

- Baccalaureate degree from a regionally accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale)
or
- Grade point average (GPA) of at least 3.0 for the last 60 hours of undergraduate courses
or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0

Conditional Admission

- Baccalaureate degree from a regionally accredited institution, a cumulative undergraduate GPA of no lower than 2.75, and a Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale, 141 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale
or
- Completion of at least 9 semester hours of graduate course work at UALR or a graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Program Requirements

The Master of Education in Adult Education degree requires 36 graduate credit hours, including 9 adult education core hours, 9 education core hours, 9 to 12 adult education hours, 6 to 9 approved elective hours, and a written comprehensive examination. All core courses must be completed with a grade of B or better.

Adult Education Core Courses

ADED 5301 Psychology of Adult Learning
ADED 5303 Teaching Adults
ADED 7301 Foundations of Adult Education

Education Core Courses

EDFN 7303 Introduction to Educational Research
EDFN 7370 Educational Assessment
LSTE 7303 Foundations of eLearning

Adult Education Courses

ADED 5304 Methods and Materials in Adult Education
ADED 7302 Organization and Administration of Adult Education
ADED 7303 Program Planning in Adult Education (Requires a B or greater)
ADED 7304 Teaching Reading to Adults
ADED 7305 Independent Study in Adult Education

Graduation Requirements

Successful completion of an approved program of study.

Courses in Adult Education

ADED 5301 Psychology of Adult Learning

Prerequisite: program admission or graduate standing and consent of instructor. Research, practices related to adult learning, development; cognitive, behaviorist, humanist adult learning theories; stage, basic development theories. Offered on demand.

ADED 5303 Teaching Adults

Prerequisite: program admission or graduate standing and consent of instructor. Teaching/learning process from planning to presentation; approved practices working with “disadvantaged” adult learners. Offered on demand. (Requires a B or greater)

ADED 5304 Methods and Materials in Adult Education

Prerequisite: program admission or graduate standing and consent of instructor. Andragogical methods; emphasis on individual and group learning methods and procedures, selecting materials appropriate for adult learners. Offered on demand.

ADED 7105, 7205, 7305 Independent Study in Adult Education

Prerequisites: advanced graduate standing, consent of advisor. Specific problems in adult education. Only three hours can count towards the degree; program students may take up to six hours. Offered on demand.

ADED 7301 Foundations of Adult Education

Prerequisite: program admission or graduate standing and consent of instructor. Past developments, present goals and objectives of adult education. Offered on demand.

ADED 7302 Organization and Administration of Adult Education

Prerequisite: ADED 7301. Organizational procedures, administrative practices for implementation, maintenance of effective programs. Offered on demand.

ADED 7303 Program Planning in Adult Education

Prerequisite: ADED 7301. Models for planning, designing, implementing, evaluating programs. Offered on demand.

ADED 7304 Teaching Reading to Adults

Prerequisite: ADED 7301. Methods, materials for teaching reading to adults; emphasis on adult learner's needs. Offered on demand.

ADED 7307-7607 Internship

Prerequisite: 12 program hours. Practical experience in concentration, specialization area; requires at least 40 contact hours for each credit hour. Offered on demand.

ADED 7308 Seminar

Prerequisites: ADED 5301, 7301, 7303. Recent adult education research having direct application to adult educators in public schools, continuing education, cooperative education, related agencies, programs. Offered on demand.

Graduate Certificate in Mathematics Education

The Graduate Certificate in Mathematics Education, housed in the Curriculum and Instruction program in the Department of Teacher Education, is designed for mathematics teachers, coaches, facilitators, and specialists who want to develop their knowledge and skills of the teaching and learning of mathematics in the K-12 classroom. The graduate certificate is a 6-course, 18-credit hour graduate certificate. Many schools throughout the state are moving towards instructional facilitators in mathematics. This certificate supports instructional facilitators and underscore pedagogical practices by addressing Common Core State Standards.

Admissions Requirements

See Graduate School admission requirements at the beginning of this Catalog for minimum admission requirements.

Program Requirements

Core Courses (14 hours)

ECED 7307 Teaching Early Childhood Mathematics
MCED 7301 Teaching Middle School Mathematics
MCED 7302 Diagnosis & Remediation in Math
MCED 7305 Teaching Mathematics to the Gifted
SCED 7302 Specialized Instructional Methods

Teaching Field Electives (4 hours)

MATH 5383 Technology in Mathematics
SCED 7105, 7205, 7305 Independent Study or
Graduate coursework in math content

Learning Outcomes

Upon completion of the coursework, students will be able to:

- Understand K-12 mathematics curriculum and pedagogical practices
- Understand and apply strategies for diagnosis and remediation of mathematics deficiencies
- Understand and apply strategies to maximize the potential of mathematical talent
- Develop conceptual understanding and pedagogical practices in mathematics education

Dickinson Hall, Room 300

(501) 569-3124

Master of Education in Middle Childhood Education

The Master of Education in Middle Childhood Education (MCED) is a program that provides expertise in middle-level education by providing a more comprehensive understanding of young adolescent learners and of the need for a learning environment that is responsive to students' developmental needs. In addition, this program provides expertise in both teaching content and pedagogy. Individuals with licensure in Middle Childhood Education may teach grades 4-8. The MCED program is an Initial Licensure Program.

Admission Requirements

Regular Admission

- Baccalaureate degree from a regionally accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale)
- or
- Grade point average of at least 3.0 for the last 60 hours of undergraduate courses
- or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0

In addition to the required GPA, applicants must have passing scores on Praxis CORE for Educators Tests.

Conditional Admission

- Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than 2.5; and a Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale, 141 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale
- or
- Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B

Additional Requirements

- Upon review of applicant's transcript, additional content (mathematics, science, language arts, social studies) hours may be required. You must meet with your advisor about this after an audit of your transcript(s).
- At least 15 hours in the area of concentration (6 of which must be at the 3000 or above level)
- 12 hours in the three areas not chosen as a concentration.
- A satisfactory interview completed with Middle Childhood faculty

Legal Requirements Prior to Field or Internship Placements

Those who apply to the Middle Childhood Education Master's program must complete the following requirements and submit documentation to the Field Placement Office in the College of Education and Health Professions prior to field or internship placements:

- Proof of liability insurance. This insurance is provided through the School Workers Defense Program or by joining the Student Arkansas Education Association (SAEA).
- Criminal records check: State civil record check must be completed and submitted to advisor.
- Complete the Criminal Background Disclosure.

Before being recommended for placement and licensure, candidates must also submit a criminal records check, state civil record check, and FBI record check. The student is responsible for the fees associated with these checks.

Initial Licensure Track

The Initial Licensure Program for the Master of Education degree in Middle Childhood is offered to those with a degree in an area other than education. This program leads to licensure in middle childhood education (math, science, language arts, and social studies). Each person's transcript will be assessed on an individual basis and an individual program will be developed. During regular semesters, all courses are offered in the evening or online. Some courses require a field placement in a local school.

Program Requirements

Once admitted, candidates are required to maintain a 3.0 GPA with at least a grade of B in all Middle Childhood Education (MCED) courses. (This includes all courses associated with the licensure/degree plan.) In addition, candidates' professional behavior, content knowledge, and classroom performance will be evaluated throughout the program.

Successful completion of the licensure program is not based solely on the number of course credits but requires demonstration of specified professional knowledge, skills, behaviors, and dispositions.

Once the candidate has begun the program, periodic evaluations will assess progress. Failure to progress satisfactorily might result in a candidate being removed from the program. While a candidate may require additional time to meet some performance expectations, the faculty may limit that time and reserves the right to drop a candidate from the licensure program should appropriate progress not be demonstrated.

Degree Requirements

In the MCED Initial Licensure program, 36 graduate credit hours are required, including 12 education core hours, 24 middle-level education emphasis hours (detailed below). In addition, HIST 4355 Arkansas History and successful completion of the Praxis II are required for licensure in Middle Childhood Education in Arkansas.

Contact the Certification Coordinator for information on the Praxis, background check, and the provisional license.

Foundations Courses (12 hours)

MCED 7315 Middle Level Curriculum and Pedagogy

Research (3 hours)

MCED 7316 Literature for Young Adolescents

EDFN 7303 Introduction to Educational Research

MCED 7317 Middle Level Literacy and Language Arts

Assessment (3 hours)

MCED 7318 Classroom Management for the Middle Level Teacher

EDFN 7370 Educational Assessment

Teaching Fields Courses (optional)

Instructional Technology (3 hours)

MCED 7301 Teaching Middle School Math

TCED 5300 WS: Developing an Electronic Portfolio

MCED 7302 Diagnosis and Remediation in Math

TCED 5300 Integrating the Internet

MCED 7305 Teaching Mathematics to the Gifted

LSTE 7305 Survey of Comp-based Learning Systems

MCED 7328 Science Education

Learning Theory (3 hours)

MCED 7330 Social Studies Education

MCED 7312 Development of Young Adolescents

Additional Requirements for Certification

EDFN 7320 Advanced Educational Psychology

HIST 4355 Arkansas History or comparable course

Middle-level Education Emphasis Courses (18 hours)

Praxis II: Principles of Learning and Teaching and

MCED 7313 Introduction to Middle Level Education {Initial Course}

Middle School: Content Knowledge

MCED 7314 Teaching the Middle Level Exceptional Child in the Inclusive Classroom

MCED 7319 Internship

TCED 7305 Action Research

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above and
- Successful completion and defense of an exit portfolio

Courses in Middle Childhood Education

MCED 7100, 7200, 7300 Workshop in Middle Childhood Education

Hands-on experiences on various topics. Offered on demand.

MCED 7138, 7238, 7338

Topics in mathematics education, and various topics of current interest to preschool, elementary, middle school teachers. Offered on demand.

MCED 7301 Teaching Middle School Mathematics

Methods and materials used in teaching middle school mathematics, grades 4-8, from a constructivist point of view. Special attention given to the utilization of manipulatives in teaching all topics. Common Core State Standards and curriculum standards as identified by the National Council of Teachers of Mathematics are covered, as well as instructional strategies for teaching them.

Consideration given to contemporary problems, trends, and practices in the field.

MCED 7302 Diagnosis and Remediation of Mathematics Learning Difficulties

A study of the causes of mathematics learning difficulties, approaches to diagnosis, and some appropriate teaching strategies. Candidates review, discuss, and summarize research articles concerning diagnosis and assessment; analyze a variety of measurement devices; develop, construct, and administer two specific diagnostic tools; diagnose a specific learner's performance in mathematics; and make recommendations for instruction.

MCED 7303 Practicum/Internship in Mathematics Education

Application of diagnosis, principles of remediation; laboratory experiences in evaluation, instruction of children; content relates to problems resulting from laboratory experience. Offered on demand.

MCED 7305 Teaching Mathematics to the Gifted

An overview of current philosophies, programs, and curricula for teaching mathematically gifted students. Topics include characteristics of mathematically gifted, development of appropriate classroom strategies, planning a differentiated curriculum, development of enrichment units, critical mathematics content and concepts, and course materials for teachers.

MCED 7308 Teaching Economics in the Middle School

Developing, implementing school techniques, activities related to an interpretation of the values in American society, economic concepts and principles. Offered in fall, spring, and summer.

MCED 7312 Development of Young Adolescents

Study of hereditary and environmental influences on the physical, intellectual, emotional, and social development of adolescents, the cultural, social, emotional, and intellectual differences as well as learning and problem-solving processes, self-esteem, and motivation as they apply to young adolescents.

MCED 7313 Introduction to Middle Level Education

This course covers the history, philosophy, and major concepts of middle level education. Organizational components of middle level schools, current issues and trends in middle level education, current research in reflective practice, and diversity in family structures are studied. Relationships between schools and community organizations, between schools and families, and between schools and diverse societies are discussed. Strategies are presented for working with families, state agencies, and community organizations, and for linking early adolescent learning to community resources. Assessment and evaluation of practice in middle level setting is conducted.

MCED 7314 Teaching the Middle Level Exceptional Child in the Inclusive Classroom

Enhances the knowledge and skills of middle childhood teachers to better educate students with exceptionalities in their classrooms. Collaboration in the design and implementation of individualized plans for students with disabilities and for students who are gifted. Acquisition of skills needed to support the implementation of behavior intervention plans and transition plans. Participation in the design and implementation of modifications for students with high abilities. Design and implementation of curriculum, materials, instructional strategies, and assessment modifications.

MCED 7315 Middle Level Curriculum and Pedagogy

A comprehensive research-based framework on cognition, learning, and classroom management. Focus on middle level student behavior in the design of curriculum, instruction, assessment, and classroom management strategies, as well as the evaluation of the impact of their efforts.

MCED 7316 Literature for Young Adolescents

Best possible options for associations between middle level students and literature. Literature-based learning and learning how to select a wide variety of books from the best examples of all genres is stressed. Early adolescent literature is read. Developmentally appropriate instructional procedures in reading and writing to aid in comprehension is stressed. Other topics include integrating literature in the content areas, literature study circles, flexible grouping, how to use literature to assist multicultural understanding, the benefits of using school book clubs, and assessment.

MCED 7317 Middle Level Literacy and Language Arts

Provides a thorough examination of current middle level literacy issues, research, and practices in grades 4-8. Presents a global view of the school, community, teachers, administrators, and parents and the role of each in promoting literacy. Developmental, cognitive, and instructional variations common to this age group, integration of curriculum through interdisciplinary units, language arts in the content areas, phonics and word studies, children's literature, flexible grouping, and literacy assessment.

MCED 7318 Classroom Management for the Middle Level Teacher

This course covers fundamental principles underlying middle childhood developmental programs in grades 4-8. It includes creating and fostering classroom management techniques. It also includes strategies for the design of environments which provide a safe place for teaching and learning. Connecting the community to the school for effective discipline and parental support and involvement is included.

MCED 7319 Internship

In this course, candidates will be placed in an active teaching role in a local school. Candidates will plan, teach, and reflect on the experience. Candidates will be responsible for all aspects of the classroom environment including making accommodations for children with special needs. All of the school resources will be used, and competence in using technology is required.

MCED 7328 Science Education

Science Methods is designed to prepare graduate candidates with the specialized expertise, professional development, and communication skills to strengthen effectiveness as a middle school science teacher. The class will focus on the advanced knowledge, skills, and dispositions needed to practice current methods of inquiry-based instruction and learning. This instruction shall include the application of hands-on activities that focus on the use of manipulation and has an emphasis on integrating science within the curriculum. There will be a strong emphasis on the use of technology for curriculum development and lesson presentations. The student will use the content to develop those pedagogical techniques and activities that encourage and promote gains in science learning.

MCED 7330 Social Studies in the Middle School

An in-depth study in social studies education in the middle grades (4-8). Builds on the belief that students need to construct knowledge in their own minds in order for it to be meaningful to them. Emphasis is placed on the meaningful learning of social studies content, skills, and values, in order to promote democratic behavior in early adolescents. Presentation of the theory and research explaining meaningful learning in social studies, the structure of knowledge to be learned, and strategies for effective and powerful social studies teaching. Candidates plan a developmentally appropriate hands-on experience with appropriate material and supportive environment necessary for children's meaningful exploration and discovery.

MCED 7350 Seminar in Middle Education

Prerequisite: 24 graduate hours. Variable content based on current issues, effective practices in middle level education of interest to in-service teachers.

Dickinson Hall, Room 300

(501) 569-3124

Master of Education in Secondary Education

The Master of Education in Secondary Education provides proficiency in professional education, curriculum and instruction, teaching skills, and a teaching specialty. Two tracks are offered within the master's degree program: the initial licensure track and the provisional initial licensure track.

Admission Requirements

Please also see specific admission requirements for the Initial Licensure track and the subject advisor for content area-specific admissions requirements.

Regular Admission Criteria

- Baccalaureate degree from a regionally accredited institution with a cumulative GPA of at least 2.75 (4.0 scale),
or
- Grade point average of 3.0 for the last 60 hours of undergraduate courses,
or
- Grade point average 3.0 in the content major,
or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0.

Conditional Admission

- Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than a 2.5; and a General Record Exam (GRE) score of at least 144 on the Verbal Scale, 141 on the Quantitative Scale, and 3.5 on the Analytical Writing Scale,
or
- Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Initial Licensure Track Admission Requirements

(In addition to the requirements for regular or conditional admission)

- Baccalaureate or equivalent degree in one of the following teaching specialty areas: art; drama/speech; English language arts; life/earth science; physical/earth science; mathematics; vocal music; business technology; social studies; health and physical education, music, art, or foreign language; subject to areas approved by the Arkansas Department of Education.
- Graduate Record Examination (GRE) scores as required by the Graduate School. Please note: If you are applying for conditional admission to the Initial licensure Track because your grade point average is lower than a 2.75 (but no lower than a 2.5), you must take the Verbal, Quantitative, and Analytical Writing sections of the GRE.
- Praxis CORE scores of 150 in mathematics, 156 in reading, and 162 in writing
- Candidates who have completed the baccalaureate degree and lack no more than 12 hours in the specialty area may be admitted to the program and may complete deficiencies concurrently with a master's program.
- Interview with faculty

Legal Requirements Prior to Field or Internship Placements

Students who apply to the Secondary Education program must complete the following requirements and submit documentation to the Field Placement Office in the College of Education and Health Professions prior to field or internship placements:

- Proof of liability insurance. This insurance is provided through the School Workers Defense Program or by joining the Student Arkansas Education Association (SAEA).
- A negative tuberculosis test. (Health card is available through the Arkansas Department of Health.)
- Criminal records check: state civil record check must be completed and submitted to advisor.
- Completion of the Criminal Background Disclosure
- Before being recommended for licensure and placement, candidates must complete a criminal records check, state civil record check, and FBI record check. The student is responsible for the fees associated with these checks.

Initial Licensure Track

The initial licensure track in Secondary Education is for those who have a baccalaureate (BA, BS) degree from an accredited institution with a major in a subject area taught in secondary schools and who want to prepare to be teachers. This track leads to licensure in a teaching specialty. All courses are offered in the evening. Some courses require a field placement in a local school.

Title II definitions now require that program completers pass required assessments in addition to completion of the courses on the student's degree plan. Students in the initial licensure track of the M.Ed. in Secondary Education are required to pass state required Praxis II assessments as of spring 2001.

Initial Licensure Track Program Requirements

EDFN 7320 Advanced Educational Psychology or

SCED 5321 Adolescent Development and Diversity or

EDFN 7330 Human Development

EDFN 7370 Educational Assessment

SCED 7103 Supervised Clinical Teaching

SCED 7106 Instructional Skills Practicum

SCED 7201 Curriculum Design

SCED 7202 Specialized Instructional Methods

SCED 7302 Trends and Issues in the Secondary School

SCED 7304 Action Research Project or

EDFN 7303 Introduction to Research

SCED 7306 Instructional Skills and Classroom Management

SCED 7601 Internship (Must pass Praxis II Content before application approval)

SPED 7204 Adolescents with Special Needs

SPED 7301 Foundations of Special Education

Six hours of electives in the content area, education, or technology

Initial Licensure Track Graduation Requirements

- A minimum of 36 graduate credit hours with a GPA of at least 3.0
- A portfolio accepted by committee
- Passing scores on all Praxis II examinations required by the Arkansas Department of Education

Provisional Initial Licensure Track

State Requirements for the Provisional License

A candidate must meet the following criteria to be considered for the provisional license:

- Be fully admitted to the UALR Graduate School and in good standing in an educational program of study (graduate secondary education) and continually be taking classes. If the candidate drops out of the program or discontinues taking classes, the candidate will be reported to the State Department of Education.
- Pass the Praxis CORE and Praxis II content exams.
- Complete and clear background checks. (Police and FBI)
- Complete the application for the provisional license. NOTE: Completion of application does not guarantee approval. All sites must be approved by the associate dean of the College of Education and Health Professions.
- Secure a mentor from the employing school. The school will assign the mentor. The candidate must have the mentoring form included in the licensure packet sent to the State Department for the provisional license application.
- Complete Arkansas History (if the candidate is in social studies) prior to being recommended for a provisional license.

Contact the Certification Coordinator for information on the Praxis, background check, and the provisional license.

Retention Requirements for both Tracks

Once admitted, students are required to maintain a 3.0 grade point average with at least a grade of B in all Secondary Education (SCED) courses. This includes all courses associated with the licensure/degree plan. In addition, the student's professional behavior, content knowledge, and classroom performance will be evaluated throughout the program.

Successful completion of the licensure program is not based solely on the number of course credits but requires demonstration of specified professional knowledge, skills, behaviors, and dispositions. Once the student has begun the program, periodic evaluations will assess progress. Failure to progress satisfactorily might result in a student being removed from the program. While a student may require additional time to meet some performance expectations, the faculty may limit that time and reserves the right to drop a student from the licensure program should appropriate progress not be demonstrated.

Graduate Certificate in Secondary Education

Students wishing to receive a graduate certificate in special education will complete 21 graduate hours.

Admission Requirements

Students must meet the same admission requirements as those who apply for the master's degree program.

Program Requirements

SCED 7202 Specialized Instructional Methods
SCED 7103 Supervised Clinical Teaching
SCED 7306 Instructional Skills and Classroom Management
EDFN 7330 Human Development
SPED 7303 Adolescents with Special Needs
EDFN 7370 Educational Assessment
SCED 7601 Internship

Graduation Requirements

- Minimum of 21 graduate credit hours
- Minimum 3.0 GPA with no grade below B
- Praxis II content pedagogy exam or Principles of Learning and Teaching passed

Courses in Secondary Education

SCED 7104 Curriculum Design Practicum

Prerequisite: SCED 7306. Co-requisite: SCED 7201. A field placement centered around a technology-enriched environment. Preprofessionals work with students in a facilitative learning environment that includes students with special needs. Inquiry and problem-based teaching strategies are observed. Preprofessionals focus on technology in teaching and learning strategies and digital equity.

SCED 7105, 7205, 7305 Independent Study

Prerequisite: consent of instructor. Offered on demand.

SCED 7106 Instructional Skills Practicum

Co-requisite: SCED 7306. Observing and assisting Master teachers and testing candidate's knowledge and selected skills of instruction, and management in metropolitan, multicultural secondary school classrooms.

SCED 7201 Curriculum Design Seminar

Prerequisite: SCED 7306. Co-requisite: SCED 7104. This course emphasizes the development of content specific and integrated thematic curricula. Students will develop teaching units that address the inclusion of students with special needs. Inquiry and problem-based teaching strategies will be modeled. The internet and technology as an integrative tool will be utilized to develop pedagogical techniques and materials in relation to whole course design with cross-disciplinary focus and active student involvement. All projects and assignments will be posted to the SCED 7201 discussion list for peer collaboration and review.

SCED 7202 Specialized Instructional Methods

Co-requisite: SCED 7103. Objectives, philosophy of the subject field as applied to secondary education; consideration of issues, research in the content areas; application of adaptive and unique instructional strategies, methods to specific areas.

SCED 7301 Secondary School Curriculum

Theory, practice of the secondary school program; includes patterns of organization, techniques for development, overview of secondary curriculum trends, issues, current status as a whole and in each subject field; curriculum specialists in subject areas assist with instruction, development of applicable curriculum.

SCED 7302 Trends and Issues in Secondary Education

Seminar

Co-requisite: SCED 7201 or TCED 7303. A study of trends and issues pertaining to the goals, analysis of the teacher's role in dealing with current concerns in these areas.

SCED 7304 Action Research Project

Co-requisite: SCED 7302. (Topic chosen with and approved by project advisor at least four weeks before registration.) Student designs, implements research project on a topic addressing educational issues in multicultural and mainstreamed secondary school environments; requires written report and oral defense before committee. (Projects by in-service teachers are usually conducted in their own classes).

SCED 7306 Instructional Skills and Classroom Management

Co-requisite: SCED 7106. Students develop pedagogical techniques, activities, and assessments that encourage and promote learning. This course also includes the study, analysis, and development of teaching, human relations and management models, skills, and techniques, which are tested in the practicum.

SCED 7601 Internship

Prerequisite: 21 hours completed in the program, including SCED 7201, and passing scores on Praxis II Content. Co-requisite: SCED 7302. Students spend a full semester in a secondary school, under supervision of a secondary cooperating teacher or mentor and a University supervisor, observing, teaching, participating in activities involving the school, community.

Dickinson Hall, Rooms 300F, 304

(501) 569-3124, (501) 569- 8710,

(501) 569-8922

Master of Education in Special Education

The Master of Education in Special Education (SPED) prepares candidates as teachers of students with disabilities. Special Education teachers address the professional challenge of designing instruction that meets the needs of children and youth with disabilities. Special Education offers emphases in the following areas.

Early Childhood Special Education (birth - 4th grade)

The early childhood special education emphasis prepares teachers and early interventionists to provide developmental and educational services to children (birth through fourth grade) with disabilities and to their families. Graduates should be eligible for Arkansas Teacher Certification in Special Education-Early Childhood. For more information about this program, visit the website at ualr.edu/med/SPED.

Instructional Specialist (4th-12th grade)

The special education emphasis in teaching students in grades 4-12 allows candidates to focus on the area of study for the appropriate age group. It is a non-categorical preparation program. Graduates of the Instructional Specialist 4-12 are prepared to work with students as well as collaborate with professionals in the school environment. Emphasis is placed on assessment and intervention as well as designing appropriate learning environments for students with various disabilities. For more information about this program, visit the website at ualr.edu/med/SPED.

Admissions Requirements

Regular and Conditional Admission

All applicants must have:

- A valid standard teacher license (Arkansas or other state); contact advisor for exceptions.
- Favorable recommendations from faculty in the program.

Regular Admission (additional requirements)

- Baccalaureate degree from a regionally accredited institution with a cumulative GPA of at least 2.75 (4.0 scale)
or
- Grade point average of at least 3.0 for the last 60 hours of undergraduate courses
or
- Master's degree from a regionally accredited institution with a cumulative GPA of at least 3.0

Conditional Admission

- Baccalaureate degree from a regionally accredited institution; a cumulative undergraduate GPA of no lower than 2.5; and a Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale, 149 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale
or
- A candidate may complete at least 12 semester hours of graduate course work in another UALR graduate program or a graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Program Requirements for All Emphases

All candidates must satisfy the specific common core competencies for special education along with performance standards established for specialty areas. Each emphasis requires a portfolio of scholarship as a culminating experience. Candidates in the M.Ed. in Special Education program are required to pass state-required Praxis II assessments. Specific requirements for each emphasis are listed below. Special education courses are listed at the end of the section.

Graduation Requirements for All Emphases

- Cumulative GPA of at least 3.0 on an approved program of study as outlined in the emphasis section.
- Prepare and present a proficient or above exit portfolio of scholarship.
- All candidates must pass Praxis II exam 20354, Special Education: Core Knowledge and Applications.
- Individual emphasis areas may have additional graduation requirements.

Early Childhood Special Education Emphasis

Program Requirements

Individuals seeking admission to this emphasis area must contact the program advisor prior to admission or enrollment. The following outline is not intended as a tool for students to self-advise. The special education degree with an emphasis in early childhood requires 33 credit hours, including 24 education core area hours, 9 specialization hours, and 6 supervised practicum hours. Candidates must present a portfolio of scholarship and maintain a 3.0 GPA.

Education Core Area Courses

SPED 5343 Disability Law
SPED 7301 Foundations of Special Ed.
SPED 7302 Technology in Special Ed.
EDFN 7303 Introduction to Research
SPED 7305 Managing the Learning Environment
SPED 7309 Seminar in Special Education
SPED 7351 Assessment in Special Education
SPED 7390 Assessment in SPED Practicum

Specialization Courses

SPED 5312 Medical Problems
SPED 7342 ECSE Assessment/Intervention
SPED 7350 Introduction to Educational Research

Instructional Specialist in Special Education 4-12 Emphasis

Program Requirements

The instructional specialist in special education 4-12 emphasis consists of 36 graduate hours and a portfolio presentation. In order to be admitted to the program, a candidate must hold at least an initial teaching license in either elementary, middle childhood, or secondary education. The instructional specialist license is an endorsement and can only be attained after a person acquires a standard education teaching license.

Special Education Core Courses

SPED 5343 Disability Law
SPED 7301 Foundations in Special Education
SPED 7302 Technology and Special Education
EDFN 7303 Introduction to Research
SPED 7305 Managing the Learning Environment

SPED 7309 Seminar in Special Education
SPED 7351 Assessment in Special Education
SPED 7390 Assessment in SPED Practicum

Instructional Specialist 4-12 Core Courses

SPED 7351 Assessment and Instructional Design I
SPED 7352 Assessment and Instructional Design II
SPED 7353 Transition and Life Adjustment

Courses in Special Education

SPED 5202, 5302 Workshop

Offered on demand.

SPED 5214 Early Childhood Special Education Assessment Field Experience

This is the first experience in a series of two supervised field experiences. During the 120 clock-hour experience, student field experiences emphasize assessment and early intervention assessment activities related to child find/screening, translating assessment activities in the intervention environment and assessments surrounding health and safety issues, children with health and/or sensory impairments, social development, and challenging behavior.

SPED 5216 ECSE: Inclusion Field Experience

This is the final experience in a series of supervised field experience designed for students in the Early Childhood Special Education emphasis. The field experiences included in this 120 clock-hour experience examine assessment to intervention activities related to all areas of development, technology adaptations in intervention, the link between individualized intervention plans and instructional planning, and continuous documentation of child performance.

SPED 5266 Language in Deaf Children II

Language development in normal-hearing, hearing-impaired children; relationships between the two populations; relationship of learning theory, cognitive and psychosocio-linguistic principles, other perspectives to language learning, hearing-impaired children; language instruction for teaching language to hearing-impaired children; normal language development, language acquisition theories, and language and cognitive research; includes directed observation.

SPED 5311 Managing the Learning Environment B

Prerequisites: graduate candidates entering with the graduate endorsement only option and must be admitted to the Graduate School. Theory, research, and application for classroom management. Current issues and research in applied behavior analysis and other forms of classroom management; cognitive, behavioral, and emerging management procedures; emphasis will be placed on the application of research. Positive approaches to classroom and behavior management.

SPED 5312 Medical Problems in Child Development

The primary concern of the course is to review medical conditions and events arising during prenatal, postnatal and early childhood which contribute to the nature and cause of major educational disabilities. Special attention is given to syndromes associated with mental retardation, disorders of the central nervous system, infectious disease, and a wide range of conditions placing children at risk for developmental delays. Emphasis is directed toward early medical identification, prevention of secondary disabilities, and strategies for responding to chronic health conditions in educational settings. Guest lectures by physicians and other health related professionals are an integral part of the course.

SPED 5313 Early Childhood Special Education Assessment

This is the first course in a two-course sequence addressing assessment and early intervention screening and assessment strategies for young children with disabilities, ages birth through eight. A specific focus will be given to the fundamental principles of and strategies for assessment, the role of well-baby and early intervention providers in screening and assessment process for disabilities. Candidates will learn to identify the needs of children related to health and/or sensory impairments, the identification of abilities in the developmental domains. Various aspects of the early environments are examined and procedures for gathering performance data are explored.

SPED 5315 Early Childhood Special Education: Methods of Inclusion

This is the second course in a two-course sequence addressing intervention strategies for young children with disabilities, ages birth through age eight. Specific attention is given to application of assessment principles into programming, the role of child find in providing services, the needs of young children with health and/or sensory impairments, strategies for identifying behavioral support needs and techniques for fostering social-emotional development. Attention will also be given to methods of including children with disabilities in the general education setting.

SPED 5317 Introduction to Inclusion in Early Childhood Special Education

Prerequisites: PSYC 1300, an introductory human development course, or consent of the instructor. Psychological, sociological, philosophical, legal, educational implications of educating exceptional learners; necessary adaptations for exceptional learners in the mainstream setting; role of teachers, professionals, parents as team members providing education for exceptional learners.

SPED 5330 Severe Disabilities

Prerequisites: admission to the program; SPED 4301, EDFN 3320, READ 3320, READ 3322, TCED 3383. This course focuses on current best practices in curriculum, and methods for students with severe disabilities, including specific strategies for teaching students with severe disabilities, general strategies for working with heterogeneous groups of students in inclusive settings, and methods for adapting the general education curriculum to include students with severe disabilities in elementary, middle, and high school.

SPED 5343 Disability Law

The purpose of the course is to provide students with the basic understanding of the legal and ethical issues that impact assessment, eligibility, placement, and delivery of services of students with disabilities. The focus will be on the due process procedures and elements of Free Appropriate Public Education (FAPE) necessary for successful teaching of students with disabilities as found in Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973 and Americans with Disabilities Act (ADA).

SPED 5360 Psychological Aspects of Deafness

Theory, research in the psychological development, adjustment of hearing-impaired children, adults; includes intellectual, cognitive, perceptual, social, personality development; adaptation to hearing loss; educational, mental health, rehabilitation implications of research findings with single disability, multi-disabled, hearing impaired persons.

SPED 5367 Communication Methods with Hearing-impaired Children in the Educational Setting

Prerequisite: Interpreting 4320/5320 or consent of instructor. Corequisite: Special Education 4264, 4266. Practical application of the multiplicity of methods; research, underlying theories of language acquisition by hearing-impaired children; emphasis on application to teaching English, other academic subjects. Offered in fall.

SPED 7103 Teaching Adolescents with Exceptionalities

The legal, foundational, and ethical aspects of serving adolescents with disabilities are provided. Specialized knowledge related to the development of special education at the secondary level as well as current legal and statutory issues. Psychological, sociological, philosophical, and educational implications of educating adolescent exceptional learners are introduced.

SPED 7123 Technology for Students with Visual Impairments

History of technology for individuals with visual impairments; types of technology for individuals with visual impairments; role of technology in education of students with visual impairments; hands-on experience with selected technology tools for students with visual impairment and their teachers.

SPED 7141 ECSE Clinical I

Co-requisite: SPED 7341. This is the second experience in a series of three supervised practica. During the 120 clock hour experience, student field experiences emphasize assessment and intervention activities related to child find/screening, the intervention environment, health and safety issues, children with health and/or sensory impairments, social development, and challenging behavior.

SPED 7142 ECSE Clinical II

Co-requisite: SPED 7342. This is the third and final experience in a series of three supervised practica designed for students in the Early Childhood Instructional Specialist emphasis. The 120 clock hour field experiences included in this experience examine assessment and intervention activities related to all areas of development, technology adaptations in assessment and intervention, the link between individualized intervention plans and instructional planning, and continuous documentation of child performance.

SPED 7144 Collaboration in the Field

Co-requisite: SPED 7344. This is the first experience in a series of three supervised practica for students in the Early Childhood Instructional Specialist emphasis. This course emphasizes practical use of specialized knowledge and application of program performance standards. During the 120 clock-hour practicum, field experiences emphasize teams and the team process, communication skills, collaboration strategies, consultation and professionalism. Activities will be conducted with family members and a

variety of related service disciplines.

SPED 7154 Physical and Health Management

This course will focus on health management practices for students with disabilities. Students will become familiar with emergency first aid and universal health care precautions, health management plans, guidelines for the administration of medications and the side effects of medication, procedures for managing seizures, treatments for allergies and asthma, and use of gastrostomy tubes. Students will also be given information on proper body mechanics and on positioning and physical management of students with motor disabilities. Taken with SPED 7206 Strategies for Family Involvement.

SPED 7190, 7290, 7390 Supervised Practice

Prerequisite: consent of instructor. Practical use of skills, competencies from courses; working under faculty supervision with individuals with disabilities being served in education and /or rehabilitation settings. Offered on demand.

SPED 7191, 7291, 7391 Independent Study

Prerequisite: consent of instructor. Offered on demand.

SPED 7193, 7293, 7393 Special Topics

In-depth study of selected interest in a special education emphasis area.

SPED 7203 Adolescents with Exceptionalities

Enhances knowledge regarding the characteristics, identification, and assessment of adolescents with disabilities. Necessary adaptations for adolescent exceptional learners in the inclusion setting; role of teachers, professionals, parents as team members in identification, assessment and program and instructional design components are presented. Candidates acquire skills needed to support the implementation of behavior intervention and transition plans.

SPED 7206 Strategies for Family Involvement

This course will prepare candidates to work with families of students with disabilities. The candidates will identify the impact of disabilities on families and family functioning. Strategies for communicating with families and for involving families in the process of program development and assessment will be included.

SPED 7292 Field Experience I

Prerequisite: SPED 7305. The general goal of this course is to build upon the knowledge and skill candidates have gained regarding the characteristics of and service to and evaluation of a variety of learners with disabilities. Procedures for identification and placement of students for special education will be identified and evaluated. Candidates will develop profiles of students who are classified as at risk for developing learning problems and students with varying disabilities and identify instructional support suitable for implementing with non at risk students. Candidates are encouraged to take this course concurrently with SPED 7351.

SPED 7295 Field Experience II

Prerequisites: Successful completion of SPED 7351 Assessment and Instructional Design I and SPED 7292 Field Experience I. It is suggested that this course be taken in conjunction with SPED 7352. Assessment and Instructional Design II. Candidates will engage in specific implementation of strategies for students with various learning problems in field sites. Candidates will design and use various informal assessments and analyze them for their application in the pre-referral, referral, evaluation, and IEP development process.

SPED 7296 Field Experience III

Prerequisites: Successful completion of SPED 7352 Assessment and Instructional Design II and SPED 7295 Field Experience II with a co- requisite of SPED 7353 Transition and Life Adjustment. This course will expand the application skills developed in the methods classes and SPED 7353. Candidates will use interventions and evaluation skills to assess students, design an intervention plan, implement intervention programs, and evaluate interventions for students with a variety of disabilities. Emphasis will be placed on students in grades 4-12, students with more significant involvement, and post school functioning.

SPED 7301 Foundations of Special Education

This course surveys the foundations of educational programs for students with disabilities, emphasizing the historical, philosophical, and legal aspects of special education. Course work includes surveys of the characteristics and needs of students with various disabilities.

SPED 7302 Technology in Special Education

This course will prepare candidates to be better able to respond to individuals' functional needs in order to enhance their access to the general or special education curricula. Candidates will identify and use technology for instruction, assist students with school related tasks and help students communicate and help students function better in their environment.

SPED 7305 Managing the Learning Environment

Theory, research, and application for behavioral management. Current issues and research in applied behavioral analysis and other forms of classroom management; cognitive behavioral and emerging management procedures, emphasis on application of research.

SPED 7309 Seminar in Special Education

Prerequisite: Completion of core emphasis course work, graduate standing. This course explores issues of contemporary importance to the profession, affords students the opportunity to engage in scholarly activities and high-level discussions with professors and is the final event in the candidate's program of study where earlier knowledge becomes integrated and expanded. This course is to be taken in the final six hours of study.

SPED 7333 Characteristics and Educational Needs of Children with Severe Disabilities

Intellectual, behavioral, physical characteristics of individuals with severe disabling conditions; includes models of social management, history of treatment of persons with severe disabilities, major considerations of educational services delivery to such persons.

SPED 7335 Instructional Methods for Persons with Severe Disabilities

Fundamentals of systematic data-based instructional skills needed to teach persons with severe disabilities in classroom, community environments.

SPED 7336 Advanced Instructional Methods for Teaching Persons with Severe Disabilities

Prerequisite: Special Education 7335 or consent of instructor. Identification of intervention strategies; design of effective programs for teaching age-appropriate, functional living skills to individuals with severe disabilities.

SPED 7339 Vocational Instruction for Persons with Handicaps

Vocational programming methods; emphasis on current "best practices" in instruction, program delivery; includes use of supported work model for systematic instruction in integrated community job sites.

SPED 7340 Trends and Issues in Early Childhood Special Education

Prerequisite: exceptionality course. Includes state, federal laws governing, regulating early intervention programs; program models used in the field; emphasis on models emphasizing integrating children with disabilities and their peers without disabilities.

SPED 7351 Assessment and Instructional Design I

Prerequisites: SPED 7305 and should be taken in conjunction with SPED 7295. The general goal of this course is to build upon the knowledge and skill students have gained regarding the characteristics of a variety of learners with disabilities. Specific emphasis will be placed on developing skills to serve learners with disabilities, identify and evaluate relevant formal and informal assessment strategies that contribute to the identification, placement, and instructional planning for students with learning problems.

SPED 7352 Assessment and Instructional Design II

Prerequisites: successful completion of SPED 7351 Assessment and Instructional Design I and SPED 7390, Practicum in SPED It is required that this course be taken concurrently with SPED 7390 Practicum in SPED. The general goals of this course are to expand upon the knowledge and skills developed in course work and field experiences gained in Assessment and Instructional Design I and to enfold the knowledge and skills into specific implementation for students with various learning problems. Candidates will evaluate various formal and informal assessments for use in curriculum development and adaptation. Particular emphasis will be placed on candidate competency in instructional design and analysis. Candidates will modify and adapt curriculum for inclusive settings.

SPED 7353 Transition and Life Adjustment

Prerequisite: SPED 7352 Assessment and Instructional Design II. This course presents information regarding the transition and life adjustment of persons with disabilities. The focus is on the development and implementation of transition plans for adolescents with disabilities and children with more significant disabilities. Candidates will develop mechanisms for self-advocacy development and access to services available to adults with disabilities

SPED 7360 Characteristics and Educational Needs of the Severely Emotionally Disturbed

Serious emotional disturbance and its educational implication; includes significant historical factors; theoretical orientations to definition, etiology of serious emotional disturbance; classification systems; learning characteristics, their educational implications; interdisciplinary appraisal, therapies; federal, state legislation, litigation relating to serious emotional disturbance and education.

SPED 7361 Methods for Teaching the Seriously Emotionally Disturbed

Prerequisite: Special Education 7360 or consent of instructor. Instructional principles, intervention strategies; includes major education models; identification of education needs, development of Individualized Education Program; classroom design for self-contained, resource class at elementary, secondary levels; student progress evaluation.

SPED 7362 Direct Teaching of Social Skills in Children and Youth

(Oriented to educators.) Contemporary models; emphasis on classroom-based instruction; includes key social learning aspects; social integration; teaching social skills deficits; instructional materials, procedures; language for building comprehensive social skills programming, outcomes evaluation into Individualized Education Programs.

SPED 7365 Individualized Education Programs

Prerequisite: graduate standing. Identification, evaluation, perspective programming process in education of exceptional children; includes Arkansas special education general program standards; components of comprehensive, interdisciplinary appraisal; categorical eligibility criteria; referral, placement, appeal procedure; development of Individualized Education Programs, IEP process conferences; report writing.

SPED 7366 Exceptionalities in the Classroom

Prerequisite: graduate standing. Recognition of exceptionalities, educational implications; techniques for elementary teacher in identifying exceptionalities in regular classroom. Offered on demand.

SPED 7390 Assessment in Special Education Practicum

Prerequisites: SPED 7305. Students are encouraged to take this course concurrently with SPED 7351.

The goal of this practicum is to develop knowledge and skills in assessment techniques unique to Special Education. Students will have opportunities to select, administer, and interpret scores from formal, informal, and criterion referenced tests. Candidates also will engage in specific observational assessments. Emphasis will be placed on translating assessment information into programming recommendations. Students will develop profiles of students with or at risk for developing learning problems and students exhibiting a range of disability characteristics and identifying instructional support suitable for implementing with actual students.

Master of Education in Counselor Education

The Master of Education in Counselor Education (CNSL) program prepares individuals as elementary and secondary school counselors. Instruction is provided in working with students K-12 to help them benefit from their educational experiences; address educational, social, and personal problems; and prepare for careers and further education. The program is theory based and practice oriented.

The counselor education program also provides course work and training for individuals who already hold a master's degree and wish to add certification as a school counselor and course work for individuals holding master's degrees in related areas who need specific additional hours to qualify for their professional counseling license (LPC). School counselor certification requires an evaluation of transcripts by the program coordinator. Evaluation of transcripts by the Arkansas Board of Examiners in Counseling is required to identify specific courses needed to qualify for the professional counseling license (LPC). For more information about the graduate program in counselor education, visit the program's website at ualr.edu/med/cnsl.

Admissions Requirements

Regular and Conditional Admission

All applicants must have:

- Eligibility for educator licensure (Arkansas or other state)
- Interview and favorable recommendations from program faculty
- Completed College of Education and Health Professions Biographical Data Form
- Current résumé

Regular Admission (additional requirements)

- Baccalaureate degree from a regionally accredited institution with a cumulative grade point average of at least 2.75. (4.0 scale)
- or
- Grade point average of at least 3.0 for the last 60 hours of undergraduate courses.
- or
- Master's degree from a regionally accredited institution with a cumulative grade point average of at least 3.0.

Conditional Admission

- Baccalaureate degree from a regionally accredited institution, a cumulative undergraduate GPA of no lower than 2.5, and a Graduate Record Exam (GRE) score of at least 144 on the Verbal Scale, 141 on the Quantitative Scale, and 3.5 on the Analytical Writing Scale.
- or
- Completion of at least 12 semester hours of graduate course work in another UALR graduate program or graduate program from another regionally accredited college or university with a cumulative GPA of at least 3.0 and no grade lower than a B.

Licensure

Students seeking school counselor licensure in Arkansas are required to have eligibility for an Arkansas Educator License. Eligibility requires a passing score on the Praxis I and Praxis II in the subject area of the license along with a completed degree or program of study in the area of the license. At UALR, the program of study or the master's degree in Counselor Education is required for licensure in school counseling in Arkansas. A background check of criminal and/or other records is required by the Department of Education. See the Arkansas Department of Education for information regarding background checks. (www.arkansased.org) Candidates seeking licensure or certification in school counseling in other states need to check the requirements of the states where they plan to be employed.

Program Requirements

The Counselor Education degree requires a minimum of 36-48 credit hours depending on prior graduate work and undergraduate prerequisites, including 6 to 12 education core hours, depending on undergraduate preparation, 24 M.Ed. counseling core hours, 9 supervised practice hours, SPED 7301 Foundations of Special Education or undergraduate equivalent, and 6 to 9 approved elective hours depending on prior graduate work. Arkansas licensure in school counseling requires 48 graduate credit hours. If students have prior graduate work or a graduate degree, credit may be granted toward the 48-hour requirement for licensure but not the minimum 36 credit hours for the M.Ed. degree. For students without prior graduate credits, the degree is 48 credit hours. A student's progress is evaluated after 12 semester hours, and the student's advisor approves advancement to candidacy if progress is satisfactory. In addition, state certification requires a score of at least 600 on the Praxis II School Guidance and Counseling, examination.

Completion of the degree requires successful completion of a comprehensive examination. The comprehensive examination will be evaluated by program and department faculty for the student's ability to synthesize knowledge in response to questions covering all areas of his / her study. It is offered three times a year on specified dates. Students who perform inadequately may retake the exam as many as two times, but additional course work or study may be required before the second retake.

Education Core Area Courses

EDFN 7303 Introduction to Educational Research
EDFN 7330 Human Development
LSTE 7303 Technology and Instruction in Society or equivalent

Electives

Electives may be chosen from this list. Other appropriate courses may be utilized as electives. All electives must be approved by the student's advisor.

CNSL 7109, 7209, 7309 Independent Study
CNSL 7310 Human Sexuality
COUN 7370 Psychopharmacology in Counseling*
COUN 7369 Intro to Family Counseling *
COUN 7362 Psychological Aspects of Disability*
EDAS 7303 Education Law and Ethics
EDFN 7320 Advanced Educational Psychology
LSTE 7303 Technology and Instruction in Society
LSTE 7305 Survey of Computer Based Learning Systems
READ 7326 Developmental Reading
SCED 7301 Secondary School Curriculum
SPED 7301 Foundations of Special Education
SPED 5312 Medical Problems in Child Development
SPED 7362 Direct Teaching of Social Skills in Children and Youth
SPED 7365 Individualized Education Programs
*Courses also required for students seeking an LPC

Graduation Requirements

- Successful completion of an approved program of study as outlined above
- Successful completion of the comprehensive exam or thesis

Courses in Counseling: Counselor Education

Prerequisite for all courses: graduate standing and approval of program coordinator.

CNSL 7109, 7209, 7309 Independent Study

Prerequisites: graduate standing, consent of advisor. Topics of individual interest; might include aging, at-risk children, adolescence, handicapped children, child abuse, children of divorce, single parent families, ethics, children of alcoholic families, etc. One to three hours credit. Offered on demand.

CNSL 7206 Orientation to Industry and Occupations

Includes social, economic perspectives of work world; emerging views of work; various topics related to employability and employment; plant/business tours; shadowing of workers; requires an individual project.

CNSL 7211 Guidance and Counseling Fundamentals for Educators (Course for non-majors)

Issues, functions, scope of guidance, counseling program in public education setting; programmatic components, counselor roles; counseling, delivery of services in multi-ethnic setting.

CNSL 7300 Foundations for School Guidance and Counseling Programs

Pupil services; includes pupil personnel services, models of guidance, the professional school counselor, pupil populations with special needs; emphasis on history, philosophy, organization, functions of guidance and counseling programs in the schools.

CNSL 7301 Counseling Theories and Applications

Experiential, relationship-oriented, cognitively-oriented, behaviorally-oriented approaches to counseling; emphasis on counselor as an instrument of counseling, development of a personal theory of counseling, legal and ethical responsibilities of counselors.

CNSL 7302 Models and Techniques for Counseling Interviews

Prerequisite: CNSL 7301. Techniques, procedures for counseling interviews; emphasis on mastery of levels of skills within a microskills hierarchy for counseling interviews, appropriate use of skills in various stages of counseling.

CNSL 7303 Career Development, Planning, and Information Services

Theoretical approaches to career development, planning; includes career development theories, planning, education, guidance models; needs of special populations, delivery systems.

CNSL 7305 Appraisal Resources and Services in Counseling

Emphasis on appropriate selection, administration, uses of a variety of testing, and other techniques; individual analysis; case management in the counseling setting.

CNSL 7307 Theories and Techniques of Group Counseling

Prerequisite: consent of instructor. Processes, theories of group counseling; developing personal approach for applying concepts, processes.

CNSL 7308 Cross Cultural Counseling

Prerequisites: CNSL 7300, 7301, and 7302, or consent of instructor. Environmental, personal, socio-economic, psychological characteristics of special client (culturally different) groups; counseling theories, techniques applied to culturally different individuals, and groups; emphasis on knowledge, skills in cross-cultural counseling; includes potential sources of misunderstanding investigated from various counseling modes.

CNSL 7310 Human Sexuality

Prerequisite: EDFN 7330, CNSL 7300, 7301, and 7302 or consent of instructor. Biological, psychosocial, behavioral, clinical, cultural factors; literature of; skills of communicating knowledge via counseling strategies for human sexual behaviors.

CNSL 7312 Advanced Cross Cultural Counseling

Prerequisite: CNSL 7308. This course expands upon the curriculum base in CNSL 7308 Cross Cultural Counseling through the identification of multiple intervention strategies with emphasis on advanced focus on school-aged youth and their families. It includes advanced emphasis on content and process development.

CNSL 7313 Ethical and Legal Issues in the Counseling

Profession Review of legal and ethical standards in school and community counseling related to counselor training, research, and practice. Topics include: client rights, confidentiality, the client-counselor relationship, professional relationships, duty to warn, counselor supervision, counseling minors and case law in counseling.

CNSL 7320 Practicum: Counseling Services-Elementary Education

Prerequisite: 20 - 24 semester hours completed in the CNSL program and consent of the instructor. Supervised practice in program management, information services, appraisal services in elementary school counseling; focus on operationalizing cognitive content of core courses. Requires 75 clock hours of counseling activities. Students must achieve a (B) or greater before enrolling in an internship.

CNSL 7321 Practicum: Counseling Services-Secondary Education

Prerequisite: 20 - 24 semester hours completed in the CNSL program and consent of the instructor. Supervised practice in program management, information services, appraisal services in secondary school counseling; focus on operationalizing cognitive content of core courses. Requires 75 clock hours of counseling activities. Students must achieve a (B) or greater before enrolling in an internship.

CNSL 7330 Practicum: School Counseling

Prerequisite: 20 - 24 semester hours completed in the CNSL program and consent of the instructor. Supervised practice in program management, information services, appraisal services in school counseling; focus on operationalizing cognitive content of core courses. Requires 100 clock hours of counseling activities. Students must achieve a B or greater before enrolling in an internship.

CNSL 7331 Practicum: Counseling-Secondary Education

Prerequisite: 20 - 24 semester hours completed in the CNSL program and consent of the instructor. Supervised experience in individual counseling, group counseling, case management in secondary schools; emphasis on application of cognitive content, practice of skills. Requires 75 clock hours of counseling activities. Students must achieve a B or greater before enrolling in an internship.

CNSL 7340, 7640 Internship: School Counseling

Prerequisite: consent of the instructor. Supervised internship in school setting; requires student involvement in a variety of on-the-job activities; includes program management, appraisal services, information services, case management, individual and group counseling, classroom guidance, teacher consultation, parent consultation, career guidance. Requires 100 clock hours of work per credit hour; 600 hours for degree. May enroll for three hours each of two semesters or six hours in one semester.

CNSL 7341, 7641. Internship: Counseling Services-Secondary Education

Prerequisite: consent of the instructor. Supervised practice in secondary school setting; requires student involvement in variety of on-the-job activities; includes program management, appraisal services, information services, case management, individual and group counseling. Requires 50 clock hours of work per credit hour; 300 hours for degree. May enroll for three hours each of two semesters or six hours in one semester.

CNSL 7399 Thesis

Prerequisites: 36 hours of graduate credit in counseling and educational foundations including Educational Foundations 7171 and 7303, and consent of the program advisor. Development of a formal research project; content determined in conjunction with a faculty committee chosen by the student. May be repeated for six hours total.

Courses in Interpreting for the Deaf**INTR 5320 Survey of Communication Methods**

Communication methods/systems and languages (English and American Sign Language) used by children and adults who are deaf or hard of hearing; understanding the intra- and cross- cultural communication issues that provide the impetus for choice of communication method and/or language; focus will be on development of conceptually accurate sign language skills utilizing English structure in an interactive approach for receptive and expressive sign language fluency. Offered in spring

Doctor of Audiology

The Profession

Audiologists are health care professionals who are experts in the non-medical management of the auditory and balance systems. Audiologists evaluate hearing and hearing loss; recommend, fit, and verify personal amplification systems; and assist in school-based amplification decisions as well as many other activities. Graduates of this program are prepared for positions in a variety of professional settings including hospitals, private clinics, and private practices; community speech, language, and hearing centers; college and university programs; rehabilitation centers; residential institutions; school systems; and industrial settings.

The Program

The Department of Audiology and Speech Pathology offers a Doctor of Audiology (Au.D.) degree program through the College of Health Related Professions at the University of Arkansas for Medical Sciences in a consortium with the College of Professional Studies at the University of Arkansas at Little Rock. This unique educational consortium combines the academic and clinical resources of a major medical sciences campus with those of a large, comprehensive, metropolitan university. The Au.D. program is a full-time four year program with one cohort of 9 students beginning each fall semester. It consists of a total of 11 semesters including three summers. The program's mission, goals and knowledge and skills acquisition (KASA) objectives can be found on the department website.

The curriculum is designed to emphasize the science of hearing, speech, and language; the acquisition of knowledge about human communication disorders; and the study and practice of methods for evaluation and treatment. Practicum experiences are provided in a number of different settings, primarily in the central Arkansas area. Students should expect to travel two to four hours away from central Arkansas for practicum experiences during their second and third years. Housing is arranged, if available, in local dormitories/apartments, operated by the Arkansas Area Health Education Centers (AHEC) www.uams.edu/ahec. Performance based examinations during the first and second summers in the program must be successfully completed to continue in the program. Successful completion of a comprehensive written and oral examination is required prior to placement for the 4th year externship. Successful completion of a directed research project and a 4th year externship are required prior to graduation. Two program tracks are offered to students; a post-bachelor's degree track and a post-master's degree track.

Accreditation

The doctoral (Au.D.) education program in audiology at the University of Arkansas for Medical Sciences/University of Arkansas at Little Rock is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850. Telephone: (800) 498-2071 or (301) 296-5700.

Licensure and Certification

Successful completion of all program requirements qualifies the student to apply for national examinations require for licensure and/or certification. Graduates of the Au.D. program will be eligible to apply to the Arkansas Board of Examiners in Speech Pathology and Audiology for a license to practice audiology in the state. Graduates will also be eligible to apply for optional certification through the American Speech-Language-Hearing Association (ASHA) and/or the American Board of Audiology (ABA). Successful completion of the program does not itself ensure licensure and/or certification. It is the student's responsibility to be familiar with licensure and certification requirements.

Admission Requirements

Undergraduate course work in mathematics (college algebra or higher) and in biological, physical, and behavioral sciences is required. A course in statistics is strongly encouraged but is not required. Although there are no prerequisite courses in audiology or speech pathology, the program does require that all students have one course in phonetics and one in language acquisition. If these are not completed prior to admission they must be completed during the course of study for the Au.D.

Post-Baccalaureate/Pre-Professional

Students applying for admission to the Au.D. program in the post-bachelor's degree track must have earned at least a bachelor's degree from a regionally-accredited college or university. The post-baccalaureate Au.D. degree is designed to be completed in four (4) years (including three summers with a common entry point in the fall). Exceptions to these timelines may occur on an individual basis. All work must be completed within eight (8) calendar years of initial admission. A minimum of 118 semester credit (SC) hours are required for completion of the Au.D. degree. A degree is awarded upon successful completion of all academic and practicum requirements for the College of Health Professions at the University of Arkansas for Medical Sciences. More specific information about program requirements can be obtained by contacting the Department of Audiology and Speech Pathology (501) 569-3157.

Post-Master's

Students applying for admission to the Au.D. program in the post-master's degree track must have earned at least a master's degree from a regionally accredited college or university. Admission to the post-master's Au.D. degree program can occur in any semester. The time to complete the program will vary depending on individual requirements. All work must be completed within eight (8) calendar years of initial admission. A minimum of 118 SC hours are required for graduation (28 SC of clinical practicum will be waived for those who can provide proof of ASHA certification, and up to 30 SC may be transferred from ASHA accredited programs). Eligible applicants will have completed a master's degree program in audiology, communication sciences and disorders, or the equivalent approved by the Council on Academic Accreditation of the American Speech-Language-Hearing Association (at least 36 SC of graduate level courses specified by the department).

Proof of current state licensure in audiology and/or national certification in audiology (CCC-A or ABA) must be provided at the time of application. The date of the GRE must be within five years of application. Course work and practicum requirements will be determined on an individual basis based on the applicant's experience. A research project will be required if evidence of satisfactory completion of a master's thesis is not provided (completion of a master's level research project will not satisfy the research requirement). Contact the department for more specific requirements.

Application Procedures

All application materials must be received by February 1 to be considered for fall admission. No applications will be reviewed after this date. Early application is strongly recommended.

Application for the Au.D. program is made through the College of Health Professions, University of Arkansas for Medical Sciences, 4301 West Markham Street #619, Little Rock, AR 72205-7199. Application procedures for the post-baccalaureate track and the post-master's track require applicants to mail documentation to two different addresses. The Application for Admissions, non-refundable application fee, official transcripts, and official GRE scores should be mailed to CHP-UAMS, 4301 West Markham Street #619, Little Rock, Arkansas 72205-7199. The letter of application and three letters of recommendation should be sent to AUSB-UALR, 2801 South University Avenue, Little Rock, Arkansas 72204. Applicants must provide:

- Application for Admission: The CHP Application for Admission is required. A copy of the application can be found at healthprofessions.uams.edu/prospective-students/apply.
- Application Fee: A non-refundable application fee of \$40.00 is required and must accompany the CHP application.
- Official Transcripts: Arrange for each college or university attended to forward an official transcript to the CHP Admissions Office. Transcripts provided to CHP must be official; i.e., sent directly to CHP from the issuing institutions(s). A transcript "issued to the student" or received from the student or anyone else is not acceptable.

- A minimum cumulative and major GPA of 2.85 is required to apply for admission. Applicants whose bachelor’s degree is not completed at the time of application will be considered for admission; if accepted, the applicant must submit a supplementary transcript showing completion of the degree before registration.
- GRE Scores: Arrange for an official copy of the General Test of Graduate Record Examination (GRE) to be sent to the UAMS College of Health Professions: Institution Code 6146. Scores will include verbal, quantitative, and writing.
- Application Letter: Prepare an application letter to the Audiology Admissions Committee (business format, 12-pt font and < 2 pages) addressing:
 1. An explanation of your interest in audiology.
 2. Your long-term and short-term goals.
 3. Other information you deem relevant to the committee’s decision-making process.
 4. Reference letters must be sent by the recommending individual directly to AUSP-UALR, 2801 S. University Avenue, Little Rock, Arkansas, 72204.
- Resume: Submit a 1 page resume listing relevant educational credentials, honors, awards, activities, work history, etc. with the cover letter.
- Interview: Contact the Audiology Admissions Committee to schedule and participate in an interview (on-site or via distance technology) and tour our facilities.
- Letters of Recommendation: Three letters of recommendation on the official recommendation form are required for consideration for admission. The recommendation form is posted on the department website (healthprofessions.uams.edu).
 - Recommendations should be from professors with whom you have worked and who are familiar with your ability and academic work.

Admissions Factors

Admission to the Au.D. program is competitive and based on the following factors: academic achievement—GPA; academic aptitude—GRE; leadership and professionalism—essay, interview, application letter, resume; written and oral communication—essay, interview, application letter, resume.

Arkansas residency will be considered during selection for admission. Applicants are considered without regard to race, color, gender, age, sexual orientation, religion, national origin or disability status as a criterion in deciding against any individual in matters of admission, placement, transfer, hiring, dismissal, compensation, fringe benefits, training, tuition assistance, and other personnel or educationally-related actions.

Program Requirements

(Post-Baccalaureate Track)

A minimum of 118 SC hours are required for completion of the Au.D. degree. The following four-year (11 semester) 119 SC sample degree plan demonstrates a program that meets the 118 SC minimum.

Fall (14 Semester Credit Hours)	Spring (14 Semester Credit Hours)
AUSP 7380 Basic Diagnostic Audiology AUSP 7331 Anatomy and Physiology of the Auditory and Vestibular Systems I AUSP 7332 Acoustics and Psychoacoustics AUSP 7321 Instrumentation in Audiology and Speech Pathology AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory	AUSP 7381 Advanced Diagnostic Audiology AUSP 7336 Anatomy and Physiology of the Auditory and Vestibular Systems II AUSP 7326 Outcomes Research and Evidence-Based Practice AUSP 7384 Amplification AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory

<p>Summer (8 Semester Credit Hours)</p> <p>AUSP 7224 Genetics of Hearing Loss AUSP 7228 Professional Issues in Audiology and Speech Pathology AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory AUSP 7320 Cultural Competence in Audiology</p>	<p>Fall (15 Semester Credit Hours)</p> <p>AUSP 7334 Pediatric Audiology AUSP 7181 Clinical Electrophysiology AUSP 7360 Research Methods in Communication Disorders AUSP 7351 Amplification II AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory</p>
<p>Spring (15 Semester Credit Hours)</p> <p>AUSP 7385 Pediatric Amplification and Intervention AUSP 7383 Medical Audiology AUSP 7386 Audiologic Rehabilitation: Adult AUSP 7350 Evaluation and Treatment of the Balance System AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory</p>	<p>Summer (7 Semester Credit Hours)</p> <p>AUSP 7229 Audiology Practice Management AUSP 7V94 Independent (Directed) Research* AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory</p>
<p>Fall (14 Semester Credit Hours)</p> <p>AUSP 7371 Gerontology in Audiology AUSP 7330 Educational Audiology AUSP 7325 Implant Device Technology AUSP 7V94 Independent (Directed) Research* AUSP 7V91 Audiology Practicum* AUSP 7181 Clinical Laboratory *Note: Classes where the hours are variable are shown with a "V" as the second number.</p>	<p>Spring (14 Semester Credit Hours)</p> <p>AUSP 7333 Auditory Processing AUSP 7227 Hearing Conservation AUSP 7365 Counseling in Communication Disorders *AUSP 7V94 Independent (Directed) Research AUSP 7291 Audiology Practicum AUSP 7181 Clinical Laboratory</p>
<p>Summer (5 Semester Credit Hours)</p> <p>*AUSP 7V94 Independent (Directed) Research (if not complete)** AUSP 7491 Clinical Externship (Practicum) AUSP 7181 Clinical Laboratory</p>	<p>Fall (7 Semester Credit Hours)</p> <p>*AUSP 7194 Independent (Directed) Research (if not complete) AUSP 7691 Clinical Externship (Practicum) AUSP 7181 Clinical Laboratory</p>
<p>Spring (7 Semester Credit Hours)</p> <p>*AUSP 7V94 Independent (Directed) Research (if not complete)** AUSP 7091 Clinical Externship AUSP 7181 Clinical Laboratory</p>	

Total Semester Credit Hours 120

*Note: Classes where the hours are variable are shown with a "V" as the second number.

**Not included in total.

This coursework represents a minimum of 72 semester credit hours of classroom coursework, 6 semester credit hours in independent (directed) research with successful completion of a research project, 11 semester credit hours of clinical laboratory, 11 semester credit hours of practicum, and 12 semester credit hours of clinical externship during the final academic year. Performance-based examinations at the end of each academic year must be successfully completed to continue in the program. Written examinations at the end of the first and second academic years must be passed to continue in the program. Successful completion of a comprehensive written and oral examination is required prior to placement for the 4th year externship experience.

Courses in Audiology

The first number listed for courses is for the UAMS College of Health Related Professions; the second (in parenthesis) is for the University of Arkansas at Little Rock.

AUD 5013 (AUSP 7360) Research Methods in Communication Disorders

Introduction to research methodologies in audiology and speech pathology. Includes prospectus development, funding sources, data collection and analysis, and professional research writing and editing in communicative disorders and/or speech sciences.

AUD 5023 (AUSP 7380) Basic Diagnostic Audiology

Principles and techniques for basic audiologic evaluation, including pure tone testing, speech audiometry, and the clinical application of masking, immittance, and otoacoustic emissions. Relevant calibration issues will also be discussed.

AUD 5033 (AUSP7370) Educational Audiology

The delivery of audiology services to a school-based population. Includes the development, management, and utilization of hearing and middle ear system screening programs, classroom acoustics, selection and fitting of classroom-based amplification, and federal laws associated with children who have special needs.

AUD 5041 (AUSP 7181) Clinical laboratory

Lab instruction in clinical procedures and methods for evaluation and treatment of clients and care, maintenance and use of technology in audiology clinical practice. Perform evaluation and rehabilitation procedures under faculty supervision.

AUD 5043 (AUSP 7331) Anatomy and Physiology of the Auditory and Vestibular Systems I

Detailed information of the anatomy, physiology, electrophysiology, and neurophysiology of the auditory and vestibular systems.

AUD 5053 (AUSP 7332) Acoustics and Psychoacoustics

Basic information regarding the physics of sound, the measurement of sound and an introduction to the psychoacoustic basis of hearing and its clinical applications.

AUD 5063 (AUSP 7333) Auditory Processing

Theoretical overview, differential assessment, and treatment of adults and children with auditory processing disorders (APD). Intended to blend theoretical knowledge with practical clinical methods and techniques. Prerequisites: AUD 5023 (7380).

AUD 5073 (AUSP 7381) Advanced Diagnostic Audiology

Principles of and techniques for advanced audiometric evaluation, including speech audiometry, reflex decay, audiometric special tests and otoacoustic emissions. Report writing and making appropriate recommendations will also be discussed.

AUD 5083 (AUSP 7382) Clinical Electrophysiology

Principles and techniques in the use of evoked potentials to assess auditory function. Includes case studies and analysis of waveforms. Lecture and laboratory.

AUD 5103 (AUSP 7383) Medical Audiology

Introduction to the major pathologies of the auditory and vestibular systems, as well as medical/surgical treatment of those pathologies. Audiologic assessment and management of the disorders will also be discussed. Prerequisites: AUD 5023 (7380) and AUD 5043 (7331).

AUD 5112 (AUSP 7321) Instrumentation in Audiology & Speech Pathology

Designed to introduce students to basic principles of electronics and electrical safety and to proper use and care of equipment used in the evaluation and treatment of the auditory and vestibular systems. Two credit hours.

AUD 5123 (AUSP 7335) Advanced Psychoacoustics

Advanced information regarding how listeners with normal hearing and those with hearing loss process sound. Topics include: loudness, frequency selectivity, temporal processing, pitch perception, space perception, object/pattern perception, speech perception, experimental design, and signal detection theory. Prerequisites: AUD 5053 (7332).

AUD 5132 (AUSP 7222) Speech Perception

This course is designed to examine the perception and production of speech sounds and the prosodic features of speech. Several theories of speech perception will be presented and discussed, and the effects of hearing loss on speech perception and production will be explored. Two credit hours. Prerequisite: Graduate student standing.

AUD 5133 (AUSP 7367) Infant-Toddler Communication

Investigation of prelinguistic/early linguistic communication and feeding/swallowing development. Multidisciplinary assessment and intervention for infants and toddlers (birth to five) with special needs and their families. Current formal and information assessment tools and techniques, current intervention strategies, enhancing the therapeutic process across environments, utilizing team collaboration, and facilitating parent-infant interaction.

AUD 5143 (AUSP 7323) Advanced Electrophysiology

Principles and techniques in the use of mid- and late-evoked potentials to assess auditory function. Course includes case studies and analysis of waveforms. Laboratory assignments will be made. Two credit hours. Prerequisites: AUSP 7282. Electrophysiologic Assessment of the Auditory System I.

AUD 5152 (AUSP 7323) Advanced Electrophysiology

Principles and techniques in the use of mid- and late-evoked potentials to assess auditory function. Prerequisite: AUD 5083 (7382).

AUD 5152 (AUSP 7261) Organization and Administration of Clinical Programs

Organization, administration, and accreditation of school, university, and community programs. Private practice and billing procedures. Various and alternative career opportunities including corporate speech pathology practice. Issues related to Medicaid, Medicare, and other third-party payors as well as current legislation. Governmental and professional practice issues.

AUD 5153 (AUSP 7334) Pediatric Audiology

Normal auditory development and theoretical, clinical, and practical issues involved in screening, assessment, and management of children with hearing loss. Prerequisite: AUD 5023 (7380).

AUD 5162 (AUSP 7224) Genetics of Hearing Loss

Basic information on the genetic basis of hearing loss and an overview of syndromic and non-syndromic hearing losses. Strategies for referral to genetic counselors and other health care professionals will be included. Prerequisites: AUSP 7383 Medical Audiology.

AUD 5163 (AUSP 7320) Auditory Based Intervention

Auditory-based speech/language intervention is based on a normal neurological developmental model aimed at maximizing the child's use of his/her residual hearing to communicate. The focus of this course is to provide information about current amplification and implant technology and to detail auditory-based principles, strategies, and techniques used to facilitate spoken communication.

AUD 5173 (AUSP 7365) Counseling in Communication Disorders

Principles of counseling for working with persons with communication disorders and their families throughout the life span. Students review major theories of counseling and select those most useful for the various settings and practices of audiology and speech pathology. Students demonstrate their understanding of the counseling process through case presentations.

AUD 5183 (AUSP 7326) Outcomes Research and Evidence-Based Practice

Provides students with understanding of the principles of outcomes research, and the levels of evidence supporting clinical practice. Students will understand the principles of critical evaluation of diagnostic procedures and critical evaluation of the evidence for treatment efficacy and effectiveness as well as the importance of practice guidelines that define best practices. Two credit hours.

AUD 5192 (AUSP 7230) Cultural Competence in Audiology

Knowledge and skills needed by audiologists to provide culturally competent services to diverse clients. Sources of diversity and application of concepts to the field of audiology will be discussed.

AUD 5193 (AUSP 7336) Anatomy and Physiology of the Auditory and Vestibular Systems II

Continuation of the first anatomy and physiology course with greater focus on skull anatomy and on peripheral and central nervous system embryology, neuroanatomy, and neurophysiology.

AUD 520V (AUSP 7V87) Topics in Audiology

Emphasis on topics related to clinical or rehabilitative audiology. May be repeated for up to six hours. Prerequisite: consent of instructor.

AUD 5212 (AUSP 7227) Hearing Conservation

Noise measurement, OSHA requirements, occupational noise management, recreational audiology, and designing and implementing hearing conservation programs for adults and children. Prerequisites: AUD 7221 Instrumentation; AUD 7380 Basic Diagnostic Audiology. Two credit hours.

AUD 5222 (AUSP 7228) Professional Issues in Audiology & Speech Pathology

Personal and professional ethical values and their applications to dilemmas encountered in the clinical practices of speech pathology and audiology will be explored with students. Preferred practices and criteria for quality services will be topics for discussion. Two credit hours.

AUD 5223 (AUSP 7384) Amplification

Prerequisite: AUSP 7380 Basic Diagnostic Audiology. Theory and practice in effective use of hearing aids, auditory training equipment; includes their component parts, electro-acoustic analysis, hearing aid orientation and counseling, approaches to hearing aid evaluation.

AUD 5232 (AUSP 7229) Audiology: Practice Management

Provides students with a broad understanding of the roles of audiologists in meeting the needs of the communicatively impaired. Students will understand preferred practices, criteria for quality services and quality improvement through the evaluation of service delivery models and exploration of the laws affecting service delivery in health care and educational settings. Two credit hours.

AUD 5233 (AUSP 7385) Pediatric Amplification and Intervention

Advanced strategies specific to pediatric hearing assessment, applicable technologies and management utilizing a family centered approach to intervention. Prerequisites: AUSP 7380, 7381.

AUD 5243 (AUSP 7386) Audiologic Rehabilitation: Adult

Principles of audiologic rehabilitation for adults, including diagnosis, counseling, use of amplification and other assistive devices, and communication strategies. Various models of audiologic rehabilitation presented with students presenting case studies demonstrating the basic procedures underlying each model.

AUD 5253 (AUSP 7351) Amplification II

Amplification systems, includes strategies to assess benefit and satisfaction, binaural/bilateral considerations, alternatives to conventional hearing aids, and speech perception issues related to hearing loss. Prerequisite: AUSP 7384.

AUD 5263 (AUSP 7350) Evaluation and Treatment of the Balance System

Designed to provide basic information regarding the evaluation of and treatment for balance disorders. Topics: anatomy and physiology of the vestibular, oculomotor, and proprioceptive systems, clinical tests of electronystagmography, dynamic posturography, and rotary chair. Medical and surgical treatments and rehabilitation strategies for vestibular/balance pathologies. Prerequisite: AUSP 7383 Medical Audiology.

AUD 5273 (AUSP 7325) Implant Device Technology

Overview of history of cochlear implants, corporation technology in cochlear-implants industry, and contemporary speech processing strategies for cochlear implants. Discussion of surgeries, audiological evaluation procedures used pre- and post-operatively, patient performance, counseling, and current research topics. Two credit hours. Prerequisites: AUSP 7384 Amplification I.

AUSP 7381 Advanced Diagnostic Audiology

Principles of and techniques for advanced audiometric evaluation, including speech in noise testing, "special tests" (e.g., tinnitus matching, fistula, Eustachian tube), pseudohyacusis and otoacoustic emissions are covered. Report writing and making appropriate recommendations will also be discussed. Prerequisite: ASP 5023 / AUSP 7380 Basic Diagnostic Audiology)

AUD 5282 (AUSP 7282) Learning Disabilities

An introduction to the characteristics, definitions, etiologies, assessment and therapeutic procedures in the treatment of children diagnosed with learning disabilities. Emphasis placed on the scope of practice for speech pathologists and audiologists and in the due process procedures for these children.

AUD 5283 (AUSP 7371) Gerontology in Audiology

Basic information on the aging process and a discussion of how the aging process affects people with hearing loss. The cognitive, physical, and social aspects of aging will be discussed.

AUD 530V (AUSP 7V00) Independent Study

Directed readings in audiology and/or speech/language pathology, individual discussion with a faculty member (1-3 hours). May be repeated for up to 6 credit hours. Prerequisites: graduate standing and consent of instructor.

AUD 5352 (AUSP 7263) Sociolinguistics

The linguistic structure of language, nature, and forms of symbolic behavior. Human uses of symbols from various groups and socioeconomic levels, particularly in communication. Prerequisite: Courses in phonetics and normal language acquisition.

AUD 536V (AUSP 7V94) Independent (Directed) Research

Research or individual investigation. May be applied toward degree requirements if approved and a letter grade is given. Repeated registration is permitted.

AUD 540V (AUSP 7191-7691) Practicum

Applied supervised practicum experiences for graduate students that encompass the breadth of the current scope of practice with both adults and children.

AUD 546V (AUSP 7V91) Clinical Externship (Practicum)

Full-time, applied, supervised practicum experience for graduate students in residence, encompassing the broad scope of diagnostic and rehabilitative audiology clinical practice (4-9 hours). Repeated registration is permitted.

COMMUNICATION SCIENCES AND DISORDERS

Master of Science in Communication Sciences and Disorders

(With the University of Arkansas for Medical Sciences)

The Master of Science in Communication Sciences and Disorders program prepares students for professional positions in hospital clinics, rehabilitation centers, schools, residential institutions, private practices, and other settings working with persons with disorders of cognition, hearing, speech, receptive and expressive language, pragmatics, literacy, voice, swallowing, and fluency. The track currently offered is in speech language pathology. The curriculum emphasizes the speech, language, and hearing processes; knowledge about human communicative disorders; and evaluation and treatment methods. Practicum experiences are available in the departmental speech and hearing clinic and at a wide variety of area sites. Professional speech-language pathologists may, with the instructors' consent, take program courses for continuing education units. For more information, visit the program's website at healthprofessions.uams.edu/programs/audandspeechpathology/m-s-program.

The UALR Department of Audiology and Speech Pathology conducts this Master of Science program in consortium with the University of Arkansas for Medical Sciences. The program has strong clinical support from the John L. McClellan Memorial Veterans Hospital, Department of Audiology and Speech Pathology, and other cooperating clinics and agencies in the Little Rock area. The program is accredited in the area of speech pathology by the Council on Academic Accreditation (CAA) through the American Speech-Language-Hearing Association (ASHA). The Department is also a sponsor for ASHA continuing education credits.

Admission Requirements

Admission to the program is through the UAMS Graduate School and requires a baccalaureate degree in Speech Pathology from an accredited institution. Students whose degrees are not in communicative disorders or speech pathology must complete a sequence of 30 hours of pre-professional communicative disorders courses before admission to the graduate program. Complete admission information is available from the Admissions Committee chairperson in the UALR Department of Audiology and Speech Pathology or by visiting the UAMS Graduate School website.

Program Requirements

The Master of Science in Communication Sciences and Disorders requires a minimum of 49 semester credit hours. Within this 49 hour requirement, students complete either 3 hours of independent research or 6 hours of thesis. Speech-language pathology students are enrolled in a practicum each semester of the program. All students must pass a comprehensive examination before graduating from the program. All students must complete the academic and practicum requirements for the ASHA Certificate of Clinical Competence (CCC).

Graduation Requirements

- Successful completion of an approved program of study as outlined above, including a passing score on the comprehensive examination
- Successful completion of academic and supervised practicum requirements for Certificate of Clinical Competence in Speech-Language Pathology

Courses in Communication Sciences and Disorders

AUSP 7273 Neurogenic Speech Disorders

Assessment procedures and intervention techniques for acquired neurogenic speech disorders in adults. Focus on dysarthria and verbal apraxia. UAMS course ASP 5192.

AUSP 7275 Craniofacial Speech Disorders

An understanding of speech disorders often associated with craniofacial differences. Craniofacial development, relevant anatomy and physiology, as well as, procedures for evaluation (both behavioral and instrumental) and treatment of craniofacial speech disorders. A team approach to care is emphasized. UAMS course ASP 5262.

AUSP 7282 Learning Disabilities

Introduction to the characteristics, definitions, etiologies, assessment and therapeutic procedures in the treatment of children diagnosed with learning disabilities. Emphasis on the scope of practice for speech-language pathologist and audiologists in the due process procedures for these children. UAMS course ASP 5282.

AUSP 7092 Independent Research

Prerequisite: AUSP 7360 Research. Three hours may be applied toward degree requirements if approved and a letter grade is given. Repeated registration is permitted though additional hours may not be applied to the total semester credit hours needed to complete the degree UAMS course ASP 536V.

AUSP 7093 Topics in Speech Language Pathology

Special projects or topics related to procedures and instrumentation, theoretical foundations, assessment, clinical or rehabilitative speech-language pathology. May be repeated for up to nine hours. UAMS course ASP 513V.

AUSP 7091 Practicum

Applied supervised practicum experiences for graduate students that encompass the breadth of the current scope of practice with both adults and children. UAMS course ASP 540V.

AUSP 7193 Independent Study in Communication Disorders

Prerequisites: Consent of the instructor. Directed readings in audiology and/or speech/language pathology, individual discussion with a faculty member. May be repeated for up to 6 hours of credit. Offered as needed. UAMS course ASP 530V

AUSP 7261 Organization and Administration of Clinical Programs

Organization, administration, and accreditation of school, university, and community programs. Private practice and billing procedures. Various and alternative career opportunities including corporate speech pathology practice. Issues related to Medicaid, Medicare, and other third party payors as well as current legislation, governmental, and professional practice issues. UAMS course ASP 5152.

AUSP 7320 Auditory-based Speech/Language Intervention

Auditory-based speech and language intervention with infants and toddlers who are deaf and/or hard of hearing. Emphasis is on the principles of the normal development sequence of listening skills, assessment of skills obtained within the hierarchy, and intervention aimed at teaching skills not yet acquired. Auditory-based intervention of infants and toddlers requires family participation; therefore, learning styles of parents and caregivers will be discussed. UAMS course ASP 5163.

AUSP 7364 Language Assessment and Therapy

Acquisition of first-language competence as related to language behavior. Includes the phonological, morphological, syntactical, and semantic components of language, Language deviation - emphasis on symptomology, etiology, evaluation, therapy. UAMS course ASP 5113.

AUSP 7360 Research Methods in Communication Disorders

Research methodologies in audiology, speech-language pathology. Includes prospectus development, funding sources, data collection, data analysis, professional research writing and editing. UAMS course ASP 5013.

AUSP 7365 Counseling in Communication Disorders

Principles of counseling for working with persons with communication disorders and their families throughout the lifespan. Students review major theories of counseling and select those most useful for the various settings and practices of audiology and speech pathology. Students demonstrate their understanding of the counseling process through case presentations.

AUSP 7367 Infant-Toddler Communication: Development and Assessment

Investigation of prelinguistic/early linguistic communication and feeding/swallowing development. Exploration of methods of multidisciplinary assessment and intervention for infants and toddlers (birth to five) with special needs and their families, current formal and informal assessment tools and techniques, current intervention strategies, enhancing the therapeutic process across environments, utilizing team collaboration and facilitating parent-infant interaction. UAMS course ASP 5133.

AUSP 7368 Dysphagia

Examination of normal oral, pharyngeal, and esophageal swallowing function in adults and children, including neurology, physiology, and the effects of aging. Swallowing disorders discussed, with an emphasis on oral and pharyngeal function. Various methods of evaluation considered, as well as current management and treatment options. UAMS course ASP 5213.

AUSP 7371 Neurogenic Language Disorders

Assessment procedures and intervention techniques for acquired neurogenic language disorders in adults. Covers language disorders secondary to cerebrovascular accident, traumatic brain injury and dementia. UAMS course ASP 5093.

AUSP 7372 Advanced Articulation Disorders

Functional, organic articulation disorders. Includes variables related to articulation, assessment, diagnosis of articulation disorders; therapeutic habilitation procedures with clients exhibiting misarticulations. UAMS course ASP 5183.

AUSP 7386 Aural Rehabilitation: Adults

Principles of audiologic rehabilitation for adults, including diagnosis, counseling, use of amplification and other assistive devices, and communication strategies. Various models of audiologic rehabilitation presented. UAMS course ASP 5243.

AUSP 7276 Voice Disorders

Assessment procedures and rehabilitation techniques for voice disorders in children and adults. Instrumental and behavioral approaches, medical and/or surgical treatment approaches. A team approach to care is emphasized. UAMS course ASP 5363.

AUSP 7392 Multicultural Issues

Systematic analysis cultural similarities and differences. Examine verbal and nonverbal cultural differences in the clinical setting. UAMS course ASP 5293.

AUSP 7396 Advanced Differential Diagnosis of Speech and Language Disorders

Comparative study in differential diagnosis of speech, language disorders in children and adults. Use and interpretation of standardized assessment procedures. UAMS course ASP 5273.

AUSP 8000 Thesis

Prerequisites: AUSP 7360. Students must take six hours total, one to six hours per semester. UAMS course ASP 600V.

AUSP 7270 Fluency Disorders

Procedures, theories, and therapeutic techniques in treating various types and degrees of stuttering and cluttering in adults and children. UAMS course ASP 5122.

AUSP 7385 Audiologic Rehabilitation: Children

Audiometric evaluation procedures and the habilitation/rehabilitation of infants and children with hearing loss. Emphasis is placed on the determination of appropriate remediation, language and speech therapy, auditory training, and counseling parents for home programming.

COMMUNICATION SCIENCES AND DISORDERS

University Plaza, Suite 600

(501) 569-3155

Doctor of Philosophy in Communication Sciences and Disorders

(With the University of Arkansas for Medical Sciences and the University of Central Arkansas)

The Doctor of Philosophy (Ph.D.) in Communication Sciences and Disorders is provided through a consortium of three institutions: The University of Arkansas at Little Rock (UALR), The University of Arkansas for Medical Sciences (UAMS), and the University of Central Arkansas (UCA).

The consortium structure offers the opportunity for interdisciplinary research in both medically oriented sites and in conventional university campus locations. The program prepares graduates for teaching and research through course work and internships in grant writing, teaching, and clinical supervision as well as research- and discipline-specific areas of study.

Admission Requirements

Admission to the program is made by application through the UAMS Graduate School and a program application. A graduate degree in Speech-Language Pathology and/or Audiology is preferred. Complete admission requirements and processes are located on the program website at: healthprofessions.uams.edu/programs/audandspeechpathology/doctor-of-philosophy-communication-sciences-and-disorders/.

Program Requirements

The Doctor of Philosophy in Communication Sciences and Disorders requires a minimum of 70 semester credit hours. Within the 70 hour requirement, students complete a minimum of: 9 hours of statistics, 3 hours of advanced research methods, 6 hours of a research project (pre-dissertation), 18 hours in doctoral seminars, 7 hours in professional development, 6 hours in a collateral area, and 18 hours of dissertation research.

Graduation Requirements

- Successful completion of an approved program of study as outlined above
- Successful completion of comprehensive examinations
- Successful completion of the dissertation and dissertation defense

Courses in Communication Sciences and Disorders

AUSP 8109 Grant Writing Internship

This course involves the development, completion and submission of a grant proposal to a private or public funding agency. UAMS-ASP 6091; UCA-SPTH 7110.

AUSP 8205 Grant Writing Pedagogy

This course covers strategies for identifying funding agencies appropriate for research and special programs. Techniques for writing grant proposals for both private and public funding will be emphasized. UAMS-ASP 6052; UCA-SPTH 7210.

AUSP 8302 Doctoral Seminar in Speech

The exploration and evaluation of research, practice, and technology related to speech development and disorders. Course reflects recent developments in literature and interests of participants. Topics may include: motor speech disorders, speech science, physiological and neurophysiological bases of speech production, voice, dysphagia, fluency, articulation, craniofacial anomalies, gerontology, AAC, multicultural issues. May be repeated for 15 hours. UAMS ASP 6023; UCA SPTH 7330.

AUSP 8206 Supervision Pedagogy

Exploration of the art and science of clinical teaching, supervision of clinical services, management of clinical programs, and instruction in communication disorders. Specific emphases will target clinical problem solving, maximizing student and client feedback, supervisory conferencing, evaluating student and client performance, clinical scheduling/record keeping, and clinical and program efficacy. UAMS ASP 6062; UCA-SPTH 7220.

AUSP 8207 Teaching Pedagogy

Principles and practices of course development and teaching skills in communication sciences and disorders. Emphases on understanding and integrating course content, targeted levels of learning, specific objectives, instructional strategies, and assessment. Additional topics include: motivating students, attributes of good teaching, professional development in teaching, distance education, and team/interdisciplinary teaching. UAMS-ASP 6072; UCA-SPTH 7230.

AUSP 8303 Doctoral Seminar in Language

The exploration and evaluation of current research, practice, and technology related to language development and disorders. Course reflects recent developments in the literature and specific interest of participants. Topics may include: developmental disorders, neurophysiological bases of language and communication, neurogenic cognitive-linguistic disorders, phonology, AAC, multicultural issues, gerontology. May be repeated for 15 hours.

AUSP 8304 Advanced Research Methods

Theory, principals and practices of research design in communication sciences and disorders. Emphases on methodology of collecting, organizing, analyzing and presenting qualitative and quantitative data. Topics will include: research questions and problems, literature and background review, research design, data organization and manipulation, scientific writing, and the publication and presentation process. UAMS-ASP 6003; UCA-SPTH 7300.

AUSP 8343 Multicultural Issues

This course will engage students in discussions of multicultural and linguistic variables that must be recognized and applied in teaching, research, and clinical supervision in the field of speech-language pathology and audiology. UAMS course UAMS ASP 6083; UCA SPTH 7321.

AUSP 8123-8223 Teaching Internship

This course provides doctoral students with supervised experience in academic instruction. UAMS ASP 610 This course will engage students in discussions of multicultural and linguistic variables that must be recognized and applied in teaching, research, and clinical supervision in the field of speech-language pathology and audiology. UAMS ASP 610 This course will engage students in discussions of multicultural and linguistic variables that must be recognized and applied in teaching, research, and clinical supervision in the field of speech-language pathology and audiology. UAMS ASP 610V; UCA SPTH 7101-7601.

AUSP 8111-8211 Supervision Internship

This course provides doctoral students with supervised experience in clinical supervision/instruction. UAMS-ASP 611V; UCA-SPTH 7102-7602.

AUSP 8131-8631 Research Project

This course covers skills necessary to complete a research project consisting of research questions, review of the literature, methodology, IRB approval, data collection, analysis of data, and written report. UAMS ASP 604V; UCA SPTH 7103-7603.

AUSP 8301 Doctoral Seminar in Hearing

The exploration of research and practice related to hearing science and hearing disorders. Course reflects recent developments in the literature and interests of participants. Topics may include: the anatomical basis of hearing science, acoustics and instrumentation, psychoacoustics, physiological acoustics, evaluation of hearing, hearing conservation, amplification, and aural habilitation and rehabilitation. May be repeated for 15 hours. UAMS ASP 6013; UCA SPTH 7310.

AUSP 9199-9999 Dissertation

An original research project is completed by the student in collaboration with the dissertation advisor and committee. The student must be able to successfully complete an oral defense to the dissertation committee. Students must continue to enroll in this course until all related requirements are completed. UAMS ASP 700V; UCA SPTH 8150-8950.

The graduate Gerontology program equips students with the knowledge and skills to work with the burgeoning population of older adults in the 21st century. The Gerontology program is housed in the School of Social Work and focuses not only on skills needed to work with aging individuals and their families but also with the greater social issues that impact older adults. The Gerontology program is interdisciplinary and is designed to serve professionals in a range of occupations, including social workers, rehabilitation counselors, administrators, healthcare workers, health educators, and attorneys, as well as professionals from the business sector.

Graduate Certificate in Gerontology

The Gerontology Program offers a Graduate Certificate (18 credit hours). The certificate is designed to provide professionals with knowledge of the biological, sociological, and psychological aspects of the aging process as well as an understanding of the social policies and services that respond to the needs of the older adult.

The Gerontology program interfaces with other graduate programs, allowing students to develop interdisciplinary skills to enhance their careers in gerontology. The curriculum includes classroom learning through traditional, online, and blended course offerings and hands-on experiences that meet the personnel needs of both public and private agencies.

Admission Requirements

Option A

The certificate may be completed in conjunction with the MSW or any other graduate degree. Students already enrolled in another graduate program should also apply to the Gerontology certificate program. MSW students may use the courses taken in the certificate program for their required electives. Students in other graduate programs will need to submit the courses for acceptance as electives to their departments. UALR policy allows up to 12 hours of graduate credit to be applied toward joint degrees.

Option B

Students not in a graduate program but wishing to obtain a certificate should apply to the UALR Graduate School and select the Gerontology certificate. An overall GPA of 2.75 or a GPA of 3.0 in the last 60 hours and proof of immunization are required for regular admittance into the certificate program. Once accepted, students must maintain a 3.0 GPA to remain in the program.

Gerontology (GERO) courses are open to all students with graduate standing as electives or as the 18 hour certificate in Gerontology.

Program Requirements

The certificate program requires the 12 core credit hours in Gerontology. The certificate requires an additional 6 hours of approved elective credit for a total of 18 credit hours.

The certificate requires 18 graduate level hours. The following courses (12 hours) are required:

GERO/SOWK 5310 Social Gerontology

GERO/SOWK 7320 Health and Biology of Aging

GERO/SOWK 7321 Aging and Social Policy

GERO 7322 Assessment and Care Management of Older Adults*

*In lieu of GERO 7322, Social Work students may substitute Foundations I and II, or Advanced Direct Practice I or II.

Certificate students choose 6 hours of elective credit. Approved elective courses include:

GERO 5315 Interdisciplinary Health Care of the Elderly
GERO/SOWK 5336 Social Aspects of Death and Dying
GERO/SOWK 5337 Adult Development and Aging
GERO/SOWK 7323 Social and Emotional Implications of Illness and Disabilities
SOWK 8159 and 8259 Evaluation Research
SOWK 8218 and 8191 Loss and Grief
SOWK 8309 Intergenerational Family Therapy
SOWK 5330 Animal Assisted Therapy
SOWK 8346 Family in Late Life

Other courses may be approved as electives upon consultation with program coordinator and approval of curriculum committee.

Graduation Requirements

Cumulative GPA of at least 3.0 on an approved program of study as outlined above.

Courses in Gerontology

GERO 5310 Social Gerontology

This course explores the social aspects of aging – how do older adults affect society and how does society affect older adults? The interaction of older adults with society is examined along with many of our social institutions such as family, healthcare, government, and the economy. Also examined are the issues associated with our aging population and how those issues affect people of all ages. A number of current controversies associated with our changing population structure will be discussed in class.

GERO 5315 Interdisciplinary Health Care of the Elderly

Healthcare components, team-taught, with segments presented by faculty from numerous fields; includes clinical considerations, social gerontology, processes of aging, communication disorders, dental problems, medication, psychology, nutrition, preventive health care, radiography.

GERO 5336 Social Aspects of Death and Dying

Gerontology and social work seek to apply knowledge from the social sciences, medicine, and the humanities with the skills and values of the helping professions. The multidisciplinary study of death (thanatology) itself comes out of studying these different disciplines. There are many social, psychological, philosophical, and religious theories concerning the passage of death—for both ourselves and those around us. We will study many diverse contributions in the social aspects of death and dying.

GERO 5337 Adult Development and Aging

This course emphasizes the life course perspective as it looks at adult development and aging within the context of the social environment. Aspects of “successful aging” that will be examined cover growth and development from emerging adulthood to old age, and the impact that culture, gender, ethnicity, and individual differences have on these processes. Human development and aging is examined during early adulthood, middle adulthood, and late adulthood. We will study aspects of development that are common to persons at all ages across the life course, individual differences in development, and differences that characterize the separate age cohorts.

GERO 7320 Health and Biology of Aging

Pre-requisite: Graduate Standing. Understanding the consequences of aging and the extension of life expectancy requires the concurrent understanding of the interrelationship of biology and behavior. Research on “normal” aging over the life span offers the potential of understanding the changes that occur with age so that we can use this understanding to anticipate and cope with those physiological and behavioral functions altered by aging in ourselves and as caregivers. The course will examine physiological and epidemiological studies of disease and aging as well as the alteration in sensory perception, muscle function, etc. Finally, the issues of interventions, realistic expectations, and ethics will also be examined.

GERO 7321 Aging and Social Policy

Prerequisite: graduate standing. This course offers an overview of aging and social policy issues, especially at the state and federal levels of government. Non-governmental agencies and organizations are also included. The aging network, healthcare including Medicare and Medicaid, as well as Social Security and retirement financing are highlighted. The course begins with a historical perspective on how we have gotten to our present health care policies. It then describes the aging network as well as the programs and services for the older adult that comprise this network.

GERO 7322 Assessment and Care Management of the Older Adult

Prerequisite: graduate standing. Assessment and Care Management with the Older Adult will offer students a comprehensive review of the emerging professional practice of Geriatric Care Management (GCM).

Throughout this course students will review a variety of geriatric assessments as well as study case management tools such as engaging, assessing, planning, intervening, evaluating and terminating client cases. Critical thinking as an ethical professional will be emphasized as well as beginning interviewing skills.

GERO 7323 Social and Emotional Implications of Illness and Disabilities

Prerequisite: graduate standing. Health care has become increasingly complex in the early 21st century. Those with a variety of developmental as well as acquired impairments and disabilities challenge the ability of society to mainstream a large minority of our citizens.

An aging population with more chronic rather than acute health care needs is also a central concern. Finally, in the age of AIDS and other life threatening diseases, professional expertise in the psychological and social implications of illness and disability is a necessary skill. Professionals also have an increased responsibility to better understand the ethical as well as the bio-psycho-social-spiritual aspects of illness and disability in the individual, the family and the wider community.

GERO 7350 Research Practicum

Prerequisite: graduate standing, statistics and research methods courses or consent of instructor. Integration of research formulation, conceptualization, measurement, sampling design, and statistical analysis related to primary and secondary research. Student examines problems related to attitudinal, behavioral, ecological research by doing actual research projects.

GERO 8310 Field Work I

Prerequisites: 18 graduate hours, consent of advisor.

GERO 8320 Field Work II

Prerequisites: 18 graduate hours, consent of advisor.

GERO 8630 Thesis

Prerequisites: 24 graduate hours; consent of advisory committee. Scholarly investigation; primary or secondary analysis of data pertinent to student's specialization track.

HEALTH, HUMAN PERFORMANCE AND SPORT MANAGEMENT

Fribourgh Hall, Room 505

(501) 569-3523

Master of Science in Health, Human Performance and Sport Management

The Master of Science in Health, Human Performance and Sport Management degree focuses on three graduate-study emphasis areas: (1) health education, (2) exercise science, and (3) sport management. This degree is designed to provide professional educational opportunities to interested students, health service professionals, teachers, researchers, corporate wellness/fitness coordinators, and sport/athletic management personnel throughout Arkansas and the nation.

These professionals will be employed in a variety of venues, including education settings, health care institutions, private health clinics, rehabilitation centers, businesses, fitness and wellness programs, and sport/athletic facilities. Students will have the opportunity to improve their intellectual and professional skills through advanced classroom instruction, participation in behavioral research, and community service learning activities.

Admission Requirements

The following materials should be submitted to the UALR Graduate School when applying to the program:

- Undergraduate transcript(s). Applicants are expected to have a baccalaureate degree from an accredited university. A 3.0 grade point average is generally expected.
- Graduate Record Examination (GRE) scores. Applicants are required to take the GRE General Test resulting in a minimum score at or above the 50th percentile.
- Reference letters. Applicants should obtain three letters of reference from college professors or individuals familiar with their academic work. Applicants should ask each writer of a reference letter to place the letter in an envelope, seal it, and sign across the seal. Applicants should collect the sealed reference letters and forward them to the UALR Graduate School.
- Letter of intent. Each applicant must submit a letter of intent describing the field or specialty within Health, Human Performance and Sport Management for which training is sought and describing how the proposed training relates to the student's career goals. Letters are not to exceed 500 words.

Applicants for admission to the M.S. in Health, Human Performance and Sport Management program are evaluated on a competitive basis by the faculty, and acceptance is conferred to the most qualified applicants. Fulfilling admission requirements is necessary to be considered for admission but in no way guarantees acceptance into the program. Students may be admitted in one of the admission status categories outlined in the Graduate Catalog.

Application for admission should be received by the UALR Graduate School by March 15 for students anticipating Fall matriculation and October 15 for Spring matriculation in order to get full consideration for admittance. Applications received after these dates will be considered as long as program openings remain available. Students who do not meet the above requirements for admission may apply to the Department of Health, Human Performance and Sport Management for a faculty review of their qualifications

Transfer Credit

Subject to faculty approval, a combined maximum of 12 semester credit hours of transfer credit and/or credit taken as a special student may be applied to the degree. Successful completion of course work taken as a special student does not guarantee acceptance into the program.

Program Requirements

Master of Science in Health, Human Performance and Sport Management students must complete nine hours of core requirements as well as twenty-seven hours in a chosen area of emphasis (Health Education, Exercise Science, or Sports Management), as follows:

Core Requirements (9 hours)

All students seeking a Master of Science in Health, Human Performance and Sport Management must complete the following three core courses:

HHPS 7301 Research Methods in Health Sciences

HHPS 7302 Basic Statistics in Health Sciences

HHPS 7303 Evaluation of Health Programs

Health Education Emphasis (27 hours)

In addition to the nine core hours, students seeking an emphasis in Health Education must complete 21 hours from the following courses as well as a Thesis or Project (6 hours), including the following:

HHPS 7310 Theoretical Foundations of HLED

HHPS 7311 Concepts & Methods HLED

HHPS 5430 Epidemiology

Electives (8 hours)

HHPS 7699 Thesis Preparation (6 hours) plus HHPS 7313 Advanced Stats for HHPS (3 hours), or HHPS 7698 Project Preparation (6 hours) plus HHPS 7314 HLED Curriculum Development (3 hours)

Exercise Science Emphasis (27 hours)

In addition to the 9 core hours, students seeking an emphasis in Exercise Science must complete 21 hours from the following courses as well as a Thesis or Project (6 hours):

HHPS 7320 Curriculum Development in PE

HHPS 7321 Advanced Motor Learning

HHPS 7322 Admin of PE & Sport

HHPS 7323 Biomechanics

HHPS 7324 Advanced Exercise Physiology

Electives (6 hours)

HHPS 7699 Thesis Preparation (6 hours)

or HHPS 7698 Project Preparation (6 hours)

Sports Management Emphasis (27 hours)

In addition to the 9 core hours, students seeking an emphasis in Sports Management must complete 21 hours from the following courses as well as a Thesis or Project (6 hours):

HHPS 7330 Management & Leadership in Sport Organizations

HHPS 7331 Sport Law

HHPS 7332 Planning & Management of Facilities

HHPS 7333 Issues & Ethics in Sport Management

HHPS 7334 Sport Marketing

HHPS 7335 Event Development & Management

HHPS 7336 Fiscal Management of Sport Organizations

Electives (3 hours)

HHPS 7699 Thesis Preparation (6 hours)

or HHPS 7698 Project Preparation (6 hours)

Graduation Requirements

Students must successfully complete 36 hours of approved courses, a comprehensive exam, and a thesis or project.

Courses in Health, Human Performance and Sport Management

HHPS 5340 Adapted Physical Education K-12

This course presents the philosophy and methods pertaining to the adaptation of physical education for handicapped and exceptional students. A basic knowledge of handicapped conditions and the complications thereof for participating in physical education along with classroom, laboratory and practical experience will be provided to increase the awareness of the handicapped and to facilitate the application of knowledge to real life situations. Three hours of lecture per week.

HHPS 5350 Methods and Techniques of Teaching Physical Education 6-12

Prerequisites: HHPS 3320, HHPS 3210, and HHPS 3310, or department approval. This course provides a detailed review of the analysis and application of the major responsibilities and competencies required for teaching physical education 6-12. Emphasis is on learning the State Standards for Physical Education, Wellness, & Leisure (SSPEWL) K-12 licensure requirements and preparation for the ETS PRAXIS Series exams. This is the designated capstone course for the BS in Health Human Performance and Sport Management: emphasis in Health and Exercise Science, Minor in Secondary Education. Dual-listed in the UALR Undergraduate Catalog as HSCI 4350. Three hours lecture per week. Three credits hours.

HHPS 5371 Health Education Concepts and Applications

Concepts, philosophy, applications in public, private, professional, commercial organizations that exist to improve, maintain health. Three hours lecture per week. Offered in Fall of even years.

HHPS 5373 Controversial Issues in Health Education

Health issues as influenced by laws, public opinion, scientific knowledge; current controversial issues in health education. (Also offered each summer in conjunction with Mid-South Summer School on Drug and Alcohol Abuse, usually last full week in June.) Three hours lecture per week. Offered on demand.

HHPS 5378 Organization and Administration of Health Education Programs

Prerequisites: HHPS 2303 and HHPS 4380 or department approval. This course is designed to provide a foundation in the organization and management of community-based health education programs. The purpose of this course is to provide an introduction to the fundamental concepts of management, administration and leadership; as well as demonstrate their application in a variety of health education, health promotion and wellness programs. Dual listed in the UALR Undergraduate Catalog as HHPS 4378. This course is not open to students with credit for HHPS 4378. Three hours lecture per week. Three credits hours.

HHPS 5399 HHPS Special Topics

Prerequisite: HHPS 2330. Selected topics in specialized areas of health education, human performance, and sport management. Course topics will be announced in advance. Three credit hour lecture course.

HHPS 5430 Epidemiology: Environmental & Health

The principles of health and environmental epidemiology are introduced with specific emphasis on its application to various health and environmental settings. Statistical methods used for analyzing health and environmental epidemiological data are introduced. Computer applications will be presented in lecture and laboratory sessions. The role of health and environmental epidemiology in anti-terrorism programs will be presented. Lectures will be supplemented with laboratory computer exercises, site visits, and field studies.

HHPS 7301 Research Methods in Health Sciences

This course provides an overview examination of research methods applicable to the study of individual and group behavior. The course will interface behavioral theory, research design and methods, and data analysis/interpretation. The course will serve as an introduction and practical guide to conducting and critically evaluating health sciences and health behavior research.

HHPS 7302 Basic Statistics in Health Sciences

A study of fundamental statistical concepts and techniques including descriptive and inferential parametric/non-parametric tests.

HHPS 7303 Evaluation of Health Programs

This course is an introductory course in evaluation designed for practitioners. The course content includes rationales for evaluation; political, organizational, theoretical, and educational aspects of evaluation; and methods to implement a sound evaluation.

HHPS 7310 Theoretical Foundations of Health Education

This course explores the role of theory in shaping research and practice in health promotion and education, as well as historical and ongoing interaction between health education and the applied social sciences.

HHPS 7311 Concepts and Methods of Health Education

Fundamental principles and practices of public health promotion including history, ethics, cultural competence, professional responsibilities, overview of theory and models, and selection and implementation of instructional methods.

HHPS 7313 Advanced Statistics for Health Science

This course will introduce students to applied multivariable, multivariate, and data modeling analyses approaches used in health sciences research. Successful completion of HHPS 7302 (or equivalent) and permission of instructor required for enrollment.

HHPS 7314 Health Education Curriculum Development

The major focus of this course is on curriculum development and program planning in health promotion and education on a micro level. Practical aspects of curriculum development and program planning are emphasized. Learning theory and learning styles are discussed as they relate to health education curricula and program planning.

HHPS 7320 Curriculum Development in Physical Education

This course focuses on the content and process of PK-12 Physical Education curriculum development for the public schools.

HHPS 7321 Advanced Motor Learning

This course focuses on the advanced study of principles/theories of human motor learning, behavior and performance.

HHPS 7322 Administration of Physical Education and Sport

This course covers basic managerial theories and practices required to administer physical education and health programs in elementary, secondary schools and athletic settings.

HHPS 7323 Biomechanics

This course is designed to provide an advanced study of biomechanical concepts and their application to human movement and sport skills.

HHPS 7324 Advanced Exercise Physiology

This course applies physiological principles to exercise circumstance and includes critical analysis of the effect of exercise on human physiologic function with in-depth examination of current literature.

HHPS 7325 Sports and Exercise Nutrition

Prerequisite: Consent of the instructor. The Sports and Exercise Nutrition course is a study of the scientific basis of nutrition and diet on physical performance and health. Topics include energy metabolism, substrate utilization, and measurement of energy expenditure, thermoregulation, fluid balance, rehydration, weight control, eating disorders, ergogenic aids, meal planning and evaluation.

HHPS 7326 Lab Techniques in Exercise Science

This course focuses on collecting and analyzing human data using various measurement devices often utilized in exercise science settings. The primary focus is to teach students how to work with human subjects in a research setting with various measurement devices. Furthermore, this course will also review research methodologies specific to certain types of data collections.

HHPS 7327 Neuromechanics

This course focuses on neurophysiology and motor control of human movements, specifically focusing on the central and peripheral control systems and their interaction. This course also addresses how injuries of the head and spine and neuromuscular diseases (e.g., MS, CP, Parkinson's) affect human movement.

HHPS 7330 Management and Leadership in Sport Organizations

This course emphasizes the management and leadership components of sport organizations. Specifically, the course will focus on the means of improving performance and satisfaction within sport organizations. Several areas will be discussed such as developing goals, decision making, strategic planning, leadership styles, and human resource management with the objective of developing a management and leadership philosophy.

HHPS 7331 Sport Law

This course is a study of legal issues affecting the delivery of sport services; focuses on liability in sport activities.

HHPS 7333 Issues and Ethics in Sports Management

Students will study ethical theories, moral reasoning, and ethical decision-making, and their value for sport managers. The application of ethical decision-making approaches relative to the major issues currently facing sport managers, and their impact on the operation of sport programs will also be addressed.

HHPS 7334: Sport Marketing

Students will develop an understanding and skill in the marketing process as relates to promotion & public relations activities in physical education, athletics and commercial sport operations. Primary focus will be on the application of marketing principles to specific sport scenarios.

HHPS 7336 Fiscal Management in Sport Organizations

This course is intended to provide students a general overview of many of the traditional and innovative revenue acquisition methods available for sport managers. Initial class time is devoted to helping students understand the fundamentals of finance, accounting, and the application of key financial techniques utilized in the administration and operation of a business, including: ration analysis, cash flow management, budgeting, and general investment strategies. Subsequently, a large portion of the semester will cover a wide range of topics geared towards educating students to basic financial concepts and other financial issues related to the sports industry.

HHPS 7337 Sport Facility and Event Management

This course provides an overview of facility or venue planning and design for sport areas. Students will learn about several finance strategies used in financing facility development as well as risk management and safety concerns when developing and running sport venues and events. Students will learn the factors involved in managing sporting events.

HHPS 7698 Project

All students must pass comprehensive examinations before enrolling in this course. Prerequisites for Health Education: HHPS 7301, 7302, 7303, 7310, 7311, 5430, 7314. Prerequisites for Exercise Science: HHPS 7301, 7302, 7303, 7320, 7321, 7322, 7323, 7324. Prerequisites for Sports Management: HHPS 7301, 7302, 7303, 7330, 7331, 7332, 7333, 7334, 7335. Project preparation is a mid-level research experience for master's degree students who have elected the special project option. With the guidance of a research committee, the student will plan, conduct, and prepare a written and oral report on a specific master's-level project containing some original research.

HHPS 7699 Thesis

All students must pass comprehensive examinations before enrolling in this course. Prerequisites for Health Education: HHPS 7301, 7302, 7303, 7310, 7311, 5430, 7313. Prerequisites for Exercise Science: HHPS 7301, 7302, 7303, 7320, 7321, 7322, 7323, 7324. Prerequisites for Sports Management: HHPS 7301, 7302, 7303, 7330, 7331, 7332, 7333, 7334, 7335. Thesis preparation is designed to provide students with graduate-level research experience. Under the direction of the student's major advisor and graduate committee, the student will carry out original research to support her/his thesis.

REHABILITATION OF THE BLIND

Dickinson Hall, Room 515 G

(501) 569-8129

There is a recognized national shortage of Orientation and Mobility specialists. In response to shortages of personnel in the rehabilitation and education fields specific to vision impairment, the Department of CARE offers a Master of Arts degree and a certificate program in Orientation and Mobility. The programs are available online through part-time study, including some face-to-face classes provided in Little Rock and, in special instances, in other states.

Master of Arts in Rehabilitation of the Blind: Orientation & Mobility

The Master of Arts in Rehabilitation of the Blind: Orientation and Mobility program develops skills in teaching both congenitally and adventitiously blind and low-vision persons in a wide range of education and rehabilitation agencies nationwide. The program offers an emphasis in orientation and mobility instruction. The program is open to both full-time and part-time students. Many of the courses are offered in a web-based format. Students may expect to enroll in 1-3 online courses each semester (two courses is the recommended maximum).

Due to several significant budget cuts and the forthcoming retirement of the only faculty member in the Rehabilitation Teaching/Vision Rehabilitation Therapy Program, the University of Arkansas at Little Rock (UALR) is suspending admissions to the RT/VRT. The Orientation & Mobility and Rehabilitation Counseling Programs will continue.

This emphasis teaches a reliable system for establishing and maintaining awareness of one's position in the environment (orientation) and fostering freedom and spontaneity of movement (mobility). It enables blind and low-vision persons to overcome the severe problems of mobility by teaching them to travel safely, efficiently, and confidently.

The online Master of Arts degree program in Orientation and Mobility prepares professionals to provide orientation and mobility services to people who are blind or visually impaired. Orientation & Mobility specialists provide consumers with skills to maximize environmental information and to process and utilize it to make judgments and decisions for independent travel while using their remaining vision, long canes or dog guides. The program provides the course work and supervised fieldwork experiences required for certification by the Academy for the Certification of Vision Rehabilitation and Education Professionals (ACVREP).

Students must commit to coming to Little Rock for two consecutive summers to enroll in the blindfold simulation classes and student teaching. Summer classes usually run for the last three weeks in June, and students receive free room and some meals either at the Arkansas School for the Blind or at World Services for the Blind, where classes are held. In exchange for the living accommodations, students must agree to assist in light recreational duties (or student teaching responsibilities) with the children at the school. Internships may be arranged in the student's home community under the supervision of a certified O&M instructor. Students adhering to a prescribed program of study may be able to complete the degree in 2.5-3 years. For more specific information, visit the O&M program website at ualr.edu/ma/rhblo.

Sequential instruction in sensory and movement skills is based on a thorough evaluation of needs and abilities related to the functional use of the existing senses and requirements of a prosthetic travel aid. Instruction is provided in the use of adaptive equipment such as canes, telescopes, and electronic travel aids. For more specific information, visit the O&M program website at ualr.edu/ma/rhblo.

Admission Requirements

Regular Admission

- Completed application to the UALR Graduate School
- Baccalaureate degree from a recognized accredited institution with a cumulative undergraduate grade point average

(GPA) of at least 2.75 (4.0 scale) or 3.0 in the last 60 hours (official transcripts required) or a master's degree or higher from an accredited institution of higher education

- Interview with program coordinator
- A personally written essay of no more than 500 words describing the applicant's background, experiences, and goals for choosing a career in Orientation and Mobility. There is no specific form or format that is required. Applicant's name, address, telephone number, email, major, and semester to begin the program are to be included on the essay. The essay is to be sent to the program coordinator: orientation & mobility.
- Personal characteristics considered in the admission process include leadership potential, emotional and social maturity, innovation, and potential for success in the chosen emphasis area. All orientation and mobility instruction students must possess good health as well as communication skills such that they can monitor their blind clients' safety at a distance beyond their reach.

Conditional Admission

If applicants do not meet the admission standards outlined above, they may be considered for conditional admission with an undergraduate GPA of 2.5 or above and documented evidence of their ability to succeed in graduate-level work. This documentation may include official transcripts from all universities attended, successful graduate course work from an accredited university, examples of academic and professional work, test scores from the GRE and/or MAT, and letters of reference. The program admissions committee will evaluate the documentation. Students must move from conditional to regular status after the completion of 12 semester hours in the program. They must have an overall GPA of at least 3.0 for the 12 credit hours of course work and a grade of B or greater in designated program courses.

Program Options

Students may extend their programs and complete a second master's degree in a related area or a master's degree and course work leading to certification eligibility in a second area. A minimum of 60 credit hours is required for two master's degrees. Students electing one of these options must be fully admitted into both program emphases areas and be advised by the program coordinator.

National Certification

Graduates qualify to apply for national certification by the Academy for Certification of Vision Rehabilitation and Education Professionals. The Academy has established standard competencies that orientation and mobility graduates must meet for national certification.

Sample Program of Study by Semester

Students adhering to a prescribed program of study may be able to complete the degree in approximately 2.5 years.

Fall I:

RHBL 7316 Principles of O&M

RHBL 7315 Medical Aspects of Blindness and Associated Disabilities

Spring I:

COUN 7362 Psychological Aspects of Disability

RHBL 7325 Low Vision Implications

Summer I (in Little Rock):

RHBL 7317 Introduction of Methods of Mobility

Fall II:

COUN 7360 Rehabilitations Foundations

EDFN 7303 Introduction to Research (online or transferred in)

3 hour elective (online or transferred in)

Spring II:

SPED 7305 Managing the Learning Environment (online or transferred in)

UALR Graduate Catalog

*CNSL 7302 Techniques of the Counseling Interview

[*Please note: this course requires a three-day workshop in Little Rock at the end of the semester. Accommodations may be made to offer the workshop in Little Rock just prior to or during the next summer term. Contact the course instructor for more details and information before registering.]

Summer II (in Little Rock):

RHBL 7318 Advanced Methods of Mobility

RHBL 7390 Practicum in O&M

Fall III:

RHBL 7395 Internship. This course requires a minimum of 280 direct teaching hours and a minimum of 350 total hours and can be taken in one's home community. Full-time internships might be completed by the end of this semester or extended into the next academic term. Part-time internships will definitely extend into the next academic term. Site location and supervision must be approved by the faculty advisor.

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study
- Grades of B or greater in designated core courses
- Grades of C or greater in all other approved courses

Graduate Certificate in Orientation and Mobility of the Blind

Students wishing to be qualified to apply for national certification in Orientation and Mobility (O&M) without seeking the master's degree emphasis area in O&M may enroll in the Graduate Certificate in O&M. Students must hold a bachelor's or master's degree from an accepted university program.

Admission Requirements

Students must meet the same admission requirements as those who apply for the master's degree program.

Program Requirements

Orientation & Mobility Foundations Courses

RHBL 7325 Implications of Low Vision

RHBL 7315 Medical Aspects of Blindness and Associated Disabilities

COUN 7362 Psychological Aspects of Disability,

or transfer into their program equivalent courses with approval of the O&M coordinator

Core Orientation & Mobility Courses (with a grade of B or better)

RHBL 7316 Principles of Orientation and Mobility for the Visually Impaired

RHBL 7317 Introduction to Methods of Mobility for the Blind

RHBL 7318 Advanced Methods of Mobility for the Blind

RHBL 7390 Supervised Practice and, RHBL 7395 Internship

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study.
- Grades of B or greater in designated core courses.
- Grades of C or greater in all other approved courses.

Courses in Rehabilitation of the Blind

RHBL 5102, 5202 Workshop

Offered on demand.

RHBL 5302 WS: Basic Independent Living Skills for Individuals with Visual Impairments

Introduction to concepts and techniques to teach individuals with visual impairments the skills and knowledge needed to function in diverse environments. Topics related to the expanded core curriculum will include: concept and motor development, spatial organization and orientation, and skills in the areas of basic orientation and mobility, personal management, communication, and recreation & leisure. The course will be offered online with a required one-week hands-on workshop.

RHBL 7111 Introduction to Independent Living for Persons with Visual Impairments

Introduction to rehabilitation services, social services, professional organizations; introduction to daily living and communication skills for persons with visual impairments. Offered on demand.

RHBL 7112 Psychological Aspects of Blindness and Visual Impairment

Historical attitudes toward blindness; impact of culture and gender on attitudes toward disability, methodologies of attitude change, process of adjustment to blindness and vision loss. Offered on demand.

RHBL 7115 Techniques of Teaching Leisure Time Activities to Persons with Visual Impairments

Methodologies for teaching recreation and leisure skills to adults with visual impairments. Offered on demand.

RHBL 7191, 7291, 7391 Independent Study

Prerequisite: consent of instructor. Offered on demand.

RHBL 7193, 7293, 7393 Special Topics

In-depth study of a topic of special interest. Offered on demand.

RHBL 7270 Interpersonal Skills Training for Counselors

Carkhuff, related models of interpersonal skills development; focus on developing skill in providing core conditions of a helping/ counseling relationship. Offered on demand.

RHBL 7310 Methods of Teaching Adaptive Living Skills to Persons with Visual Impairments

Prerequisites: RHBL 5302 WS: Basic Independent Living Skills and RHBL 7312 Braille and Relevant Formats. Methodologies for teaching adaptive skills necessary to perform daily living activities; includes personal management, home management, medical management, and workplace management. Required one week hands-on workshop as part of the online course.

RHBL 7311 Methods of Teaching Adaptive Communication Skills to Persons with Visual Impairments

Prerequisite: RHBL 7312 Braille and Relevant Formats. Methodologies for teaching expressive and receptive adaptive communication skills, including Braille, keyboarding, handwriting, recording, and use of assistive computer technology. Required one week hands-on workshop as part of the online course.

RHBL 7312 Braille and Relevant Formats

Skills of reading and writing Contracted Standard English Braille, including transcription rules and formats, use of slate and stylus, use of Perkins Braille. Students taking this course must have the potential ability to tactually or visually discriminate embossed Braille configurations and may use assistive devices as needed. Students who are uncertain of their ability to meet this requirement should contact the program coordinator for further information and clarification.

RHBL 7314 Principles of Rehabilitation Teaching

Prerequisites: consent of the instructor. Principles and philosophies of providing rehabilitation teaching services to adults of all ages with visual impairments; includes conducting needs assessment interviews, writing individualized teaching plans.

RHBL 7315 Medical Aspects of Blindness and Associated Disabilities

Anatomy, structure, function of the eye; frequently occurring diseases, malfunctions in children and adults; includes treatment procedures for disease process, rehabilitation and education implications of handicapped effects.

RHBL 7316 Principles of Orientation and Mobility for the Visually Impaired

Fundamental principles, theory of sensory information acquisition by the severely visually impaired for nonvisual locomotion; practical applications.

RHBL 7317 Introduction to Methods of Mobility for the Blind

Prerequisites: graduate standing, consent of instructor. Practical application of orientation and mobility techniques used by blind, visually impaired; blindfolds, low-vision simulators emphasize use of residual senses to perceive, integrate, react to environmental stimuli; examination, application of fundamental principles, theory of sensory information acquisition by the severely visually impaired. Hands-on workshop required.

RHBL 7318 Advanced Methods of Mobility for the Blind

Prerequisites: RHBL 7317, consent of instructor. Techniques of independent mobility for the blind; includes supervised blindfold activities in commercial, rural environments; requires special travel situations, use of public assistance and public transportation, shopping malls, in-store travel. Hands-on workshop required.

RHBL 7325 Implications of Low Vision

Prerequisite: RHBL 7315 Medical Aspects or consent of the instructor. Principles of visual perception development; implications of visual field losses; introduction to optics; optical, non-optics low-vision aids, procedures for vision screening; vision stimulation activities; low-vision simulation experiences. Required hands-on workshop as part of the online course or exemption from the course instructor.

RHBL 7390 Supervised Practice

Prerequisite: consent of the instructor. Faculty-supervised practice in the use of required skills and competencies in the rehabilitation of individuals with visual impairments in rehabilitation or education settings.

RHBL 7395 Internship

Prerequisite: consent of the instructor. Professional rehabilitation work experiences in an appropriate rehabilitation or educational setting with individuals with visual impairments.

RHBL 7399 Professional Project

Prerequisite: consent of instructor. Development of an original professional paper or media production in student's area of emphasis; content determined with faculty committee chosen by student; may be research project, grant proposal, philosophical statement, media production. Offered on demand.

COUNSELING: REHABILITATION COUNSELING

Dickinson Hall, Room 515 G

(501) 569-8129

Master of Arts in Counseling: Rehabilitation Counseling

The Master of Arts in Counseling: Rehabilitation Counseling (COUN) is a 60 semester hour program aimed at preparing rehabilitation counseling professionals who will provide direct services and resource coordination for individuals with a disability seeking re-entry into the labor market. The program is offered in a 24-month sequence. All course work is at a distance and web-based with the exception of two skill-building courses, which require on-campus matriculation for three days each. Students are admitted on a full- or part-time basis. The program is accredited by the Council on Rehabilitation Education and recognized by the Arkansas Board of Examiners in Counseling. The purpose for the program is to permit graduates to qualify for national certification as rehabilitation counselors. For more information, visit the program's website at ualr.edu/ma/COUN. With additional course work, graduates of this program should qualify for licensure as professional counselors in Arkansas and other states.

Admission Requirements

Regular and Conditional Admission

All applicants must have:

- Completed an application for admission to the UALR Graduate School
- Completed a successful personal interview with a program faculty member or a designated representative

Regular Admission

- Bachelor's degree from an accredited institution of higher education with an overall undergraduate GPA of 3.00 (3.25 in the last 60 hours)
- or
- If the student's undergraduate GPA is below 3.00 overall or 3.25 in the last 60 hours, achieve the following minimum scores on the Graduate Record Exam (GRE): (Old Version) 440 on the Verbal and 560 on the Quantitative Scales or (New Revision) 149 on the Verbal and 146 on the Quantitative scales or a scaled score of at least 391 on the Miller's Analogy Test (MAT) will permit regular admission. For employed Rehabilitation Counselors who do not meet this standard, please see "Conditional Admission, Admissions Portfolio" below.
- or
- Master's degree from an accredited institution

Conditional Admission

There are two categories within conditional admission:

- Admission of students based on GPA for graduate hours at other accredited institutions:
Students not qualifying for regular admission based on their undergraduate grade point averages may be admitted to the program on "condition" if they have successfully completed a minimum of 9 semester hours in a relevant graduate program at UALR or another regionally accredited institution with a GPA of at least 3.0 and a grade of B or greater in each course taken.

Note: "Condition" means that the student must make a B or greater in the first 12 hours taken in the UALR Rehabilitation Counseling curriculum.

- or
- Admission based on an Admissions Portfolio (For employed Rehabilitation Counselors only): Employed Rehabilitation Counselors have the option to submit a satisfactory Admissions Portfolio of academic and professional work to obtain conditional admission. The guidelines for the portfolio are available from the program coordinator. Letters of reference are not required unless specifically requested by the program coordinator.

Advanced Standing

Applicants who graduated from undergraduate rehabilitation programs and/or those with work experience as rehabilitation counselors will be admitted to advanced standing. Credit toward advanced standing will be awarded on an individual basis by the program coordinator upon recommendation of the program advisory committee.

Please note that credit awarded on the basis of Advanced Standing DOES NOT count towards the 60 hours required by the Arkansas Board of Examiners in Counseling or many other State Licensing Boards.

Program Requirements

The 60 credit hour curriculum has 4 components: Rehabilitation, Counseling, Foundations/Electives, and Field Work/Application. The field work requires 700 plus hours of supervised practice in a rehabilitation setting under the supervision of a certified rehabilitation counselor (CRC).

Transfer Credit

Students have the opportunity to transfer as many as 27 semester hours of credit from other accredited graduate programs.

Rehabilitation Courses (18 hours)

- COUN 7360 Rehabilitation Foundations
- COUN 7361 Medical Aspects of Disability
- COUN 7362 Psychological Aspects of Disability
- COUN 7363 Career Counseling and Placement
- COUN 7364 Rehabilitation Case Management
- COUN 7367 Assessment in Rehabilitation

Counseling Courses (18 hours)

- CNSL 7301 Counseling Theories and Applications
- CNSL 7302 Techniques for Counseling Interviews
- CNSL 7307 Theories and Techniques for Group Counseling
- CNSL 7308 Cross Cultural Counseling
- COUN 7369 Introduction to Family Counseling
- COUN 7370 Psychopharmacology for Counselors

Foundations/Elective Courses (9 hours)

- EDFN 7303 Introduction to Educational Research (Required)
- EDFN 7330 Human Development (Required)
- COUN 7368 Foundations of Substance Abuse (Elective)
- COUN 7369 Introduction to Family Counseling (Elective)
- COUN 7370 Psychopharmacology for Counselors (Elective)

Students are required to take three hours of elective credit from the three courses above and/or from other approved course work in counseling, rehabilitation, or other related areas.

Field Work/Application Courses (15 hours)

- COUN 7365 Rehabilitation Counseling Practicum
- COUN 7660 Internship in Rehabilitation Counseling

Graduation Requirements

An overall GPA of 3.00 in all courses in the program of study is required to complete graduation requirements for the Master of Rehabilitation Counseling program. There are core competency courses in which the student must achieve a "B" or greater. In the event that a "B" is not achieved in one of the core courses, the student must repeat the course.

The core competency courses are:

- COUN 7360 Rehabilitation Foundations
- COUN 7363 Career Counseling and Placement

COUN 7364 Rehabilitation Case Management
COUN 7365 Supervised Practice in Rehabilitation Counseling
COUN 7660 Internship in Rehabilitation Counseling
CNSL 7301 Counseling Theories and Applications
CNSL 7302 Techniques for Counseling Interviews
CNSL 7307 Theories and Techniques of Group Counseling
COUN 7367 Assessment in Rehabilitation

Post-Master's Certificate in Rehabilitation Counseling

This certificate program is a 24 semester hour graduate certificate program primarily directed at making employed/experienced rehabilitation counselors and other rehabilitation professionals eligible for national certification (CRC). The program is recognized by the Commission on Rehabilitation Counselor Certification (CRCC) as a provider of content that meets certification eligibility requirements. The program will also accommodate those with a master's degree who have other professional goals (e.g., LPC licensure). The graduate certificate is offered online and admits both full- and part-time students.

The curriculum has two components: Counseling and Rehabilitation.

Admission Requirements

- Master's degree from an accredited institution
- A completed application to the UALR Graduate School
- Personal interview with a program faculty member or a designated representative

Advanced Standing

At least 15 semester hours of this Graduate Certificate program must be taken at UALR. Students may be granted Advanced Standing credit of up to nine hours, for graduate course work from other accredited colleges or institutions.

Program Requirements

Curriculum Outline

The curriculum for the Rehabilitation Counseling Certificate is as follows:

I. Counseling (6 hours)

CNSL 7301 Counseling Theories and Applications
CNSL 7308 Cross Cultural Counseling

II. Rehabilitation (18 hours)

COUN 7360 Rehabilitation Foundations
COUN 7361 Medical Aspects of Disability
COUN 7362 Psychological Aspects of Disability
COUN 7363 Career Counseling/Placement
COUN 7364 Rehabilitation Case Management
COUN 7367 Assessment in Rehabilitation
OR other approved course substitutions

Total Program Requirements for Certificate - 24 hours

Program Rationale

The Graduate Certificate Program will allow counselors to submit the body of academic work required to sit for the Certified Rehabilitation Counselor (CRC) examination. Each course required to earn the certificate is also part of the program's Council on Rehabilitation Education (CORE) accredited Master of Rehabilitation Counseling curriculum, and each course has been accepted in the past by the Commission on Rehabilitation Counselor Certification (CRCC) as counting toward fulfilling their Eligibility Requirements.

NOTE: In addition to the academic course work, CRCC requires appropriate work experience in order to qualify to sit for the national examination. More information is available on the CRCC website (www.crc certification.com). CRCC will make the final determination on eligibility status.

Courses in Counseling: Rehabilitation Counseling

COUN 7190, 7290, 7390 Independent Study

Prerequisites: graduate standing, consent of instructor. Students under faculty supervision can explore advanced topics in rehabilitation counseling not normally covered in regular course offerings.

COUN 7360 Rehabilitation Foundations

The purpose of this course is to provide both a broad foundation for students beginning their journey into the profession of rehabilitation and a broad-based reference for current practitioners. The content provides a conceptual overview of the professional, historical, theoretical, research, and applied foundations of the rehabilitation profession as they relate to the services for individuals with disabilities.

COUN 7361 Medical Aspects of Disability

Prerequisites: COUN 7360 or the consent of the instructor. This is a course that covers the medical aspects of disability. Managing the medical aspects and functional assessment of frequently occurring medical diseases and disorders of older adolescents and adults are stressed. Topics include the medical aspects and functional assessment of neurological/ cognitive/neuromuscular disorders, psychiatric/developmental disabilities, sensory losses, and various acute and chronic physical diseases and disorders. Case management activities and a process for determining the educational/rehabilitation implications of the effects of each disability will be presented.

COUN 7362 Psychological Aspects of Disability

Prerequisites: COUN 7360 or the consent of the instructor. This course outlines the psychological and sociological aspects of disability, including community attitudes toward individuals with disabilities, strategies to change negative attitudes, adjustment factors in living with disabilities, and methods for supporting successful adjustment to disabilities.

COUN 7363 Career Counseling and Placement

Prerequisites: COUN 7360 or the consent of the instructor. The purpose of this course is to provide students with theories and techniques for empowering adults with disabilities to obtain integrated, community-based employment from a career decision making perspective.

COUN 7364 Rehabilitation Case Management

Prerequisites: COUN 7360, COUN 7361, COUN 7362, COUN 7367 or the consent of the instructor. This course is a study in case management in rehabilitation which is a skill that rehabilitation professionals must possess in order to successfully guide clients through the rehabilitation process from referral to case closure. It provides guidelines that will enable rehabilitation professionals to collect information from the intake interview, physician, psychologists, vocational evaluation, and other resources, in an effort to develop appropriate ethical rehabilitation plans with clients.

COUN 7365 Rehabilitation Counseling Practicum

Prerequisites: Must have completed all phase 1 courses and should have completed all core courses or consent of the program fieldwork supervisor. The purpose of this course is to provide students initial exposure to learning in a community based rehabilitation agency under faculty supervision. The course is designed to give the student an opportunity to practice the role of a rehabilitation professional. The student will apply rehabilitation counseling methods, techniques and vocational knowledge in working with clients and in consulting with business and industry for job development and placement opportunities. One-hundred contact hours in a fieldwork setting is required.

COUN 7367 Assessment in Rehabilitation

Prerequisites: COUN 7360 and EDFN 7303 or the consent of the instructor. The purpose of this course is to provide students with theories and techniques for empowering adults with disabilities to explore their aptitudes, interests, and other vocational assessments areas that assist them in career decision making.

COUN 7368 Foundations of Substance Abuse

This course focuses on substance abuse and coexisting disabilities from the perspective of risk and the challenges to rehabilitation practice. It provides the student with an in-depth understanding of substance abuse, drugs of abuse, patterns of abuse and consequences of abuse. Treatment models and needs are addressed from the rehabilitation model. New legislation and contemporary issues are presented to support the examination of the impact of policy on treatment and rehabilitation. The role of employment and the challenges of recovery and the return to employment are examined, within a comprehensive plan for relapse prevention. This course utilizes a diverse range of on-line resources as well as personal stories relating the challenges and dynamics of the recovery process.

COUN 7369 Introduction to Family Counseling

This course will provide knowledge about work with couples and families. This course will include understanding and application of general systems theory and the major schools of family theory. Methods for working with families with a disabled family member will be presented.

COUN 7370 Psychopharmacology for Counselors

A course intended to cover the areas of Psychopharmacology and the application of medication to all the major diagnostic categories contained in DSM-IV-TR. This course is intended for non-prescribing professionals.

COUN 7660 Internship in Rehabilitation Counseling

Prerequisites: The completion of all course work in the core and professional experience areas and the approval of the department faculty. The internship consists of advanced field work in rehabilitation counseling in an off campus field site placement. The Commission on Rehabilitation Counselor Certification requires 600 hours of applied experience in a rehabilitation agency or facility under the supervision of an experienced certified rehabilitation counselor on-site or facility supervisor. This course will provide a minimum of 300 of those field work hours. The course may be taken twice in the same semester to meet the 600 hour requirement. Completion of the second section of this course requires passing grade on the certified rehabilitation counselor (CRE) exam.

Master of Social Work

The mission of the master's program of the UALR School of Social Work is to prepare social workers for advanced practice and leadership roles who have the skills and knowledge to enhance individual, family, group, organization, and community well-being, to work for social and economic justice, and to meet the human service needs of Arkansas and the surrounding region.

The Master of Social Work (MSW) program is offered in Little Rock. After completion of the foundation year, students choose one of two concentrations for their second academic year of study: advanced direct practice (ADP) or management and community practice (MCP). The MSW curriculum consists of 60 hours of graduate work, including 32 foundation hours, 22 concentration hours, and 6 elective hours. Internships are an integral part of the curriculum design, totaling 18 hours of course work or 1200 practice hours by graduation (1000 hours for advanced-standing students). Advanced-standing students are given credit for 17 hours of graduate work and need 43 hours to graduate. For more information about the program, visit the following website, ualr.edu/socialwork/.

Admission Requirements

- Baccalaureate degree with a liberal arts perspective from an accredited college or university
- Overall GPA of 3.0 is required.
- Satisfactory scores on either the Graduate Record Exam (GRE) or Miller's Analogy Test (MAT) taken within the last five years. Test scores must be received before an admission decision can be made.
- Narrative statement of professional orientation (format included in the application packet)
- Acceptable references indicating a propensity for both academics and social work practice
- Three form letters of reference from professional, academic, or volunteer associates (forms included in the application packet)
- Volunteer, employment, and other life experiences relevant to the career choice of social work
- Official transcripts with degree posted prior to the student's enrolling in a graduate level course

Advanced Standing Applicants ONLY

- Must have a bachelor's degree in social work (BSW) from a CSWE-accredited undergraduate program with a cumulative GPA of 3.0.
- Must have a 3.5 GPA in last 60 hours of undergraduate studies.
- Degree must have been awarded within the last seven years.
- Must submit a copy of all field/internship evaluations.
- Must submit a recommendation written by a faculty member of the applicant's undergraduate social work program.

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the admissions coordinator for information. Information on graduate assistantships can be located on the UALR Graduate School website at ualr.edu/gradschool/.

Transfer of Credit

Only applicants from other Council of Social Work Education (CSWE) accredited graduate social work programs will be considered for transfer admission. The applicant must have an overall GPA of at least 3.0 in graduate work. No grade lower than a B will be accepted for credit. An official statement from the former school indicating the student is in good standing is required. The concentration year (28 hours) of graduate study must be completed at UALR.

Only one graduate-level course from the UALR MSW program, other departments at UALR, or other universities taken prior to the student's beginning of core MSW courses at UALR may be considered for transfer as an elective course. Students must submit a request of transfer of credit at or before the time of their enrollment. The request should include a cover letter, which discusses the content of the course (other than UALR MSW courses) and its relevance to social work. A copy of the course outline shall be attached. This request should be addressed to the chair of the curriculum committee.

In the event that the curriculum committee accepts requests for transfer of credit, the application is forwarded to the Graduate School dean who then reviews the transfer of credit. Transfer grades are not computed as part of a student's UALR cumulative GPA.

Stipends

A number of stipends are available to students in the School of Social Work. Contact the field coordinator for information.

Academic Credit for Life/Professional Experience

Academic credit is not given for life experience and/or previous work experience, in whole or in part, in lieu of the field internship or of courses in the professional foundation areas specified in the Curriculum Policy Statement.

Program Requirements

Internship

Internships are an integral part of the curriculum design. Students will have acquired a total of 1200 practice hours by graduation (1000 hours for advanced standing students). Through contact with clients and client systems in a helping relationship, students develop the requisite skills for social work practice. Full-time students are expected to complete the internship concurrently with other course work. Part-time students are expected to complete field work in the fall and spring of their 2nd part time year. Students must have completed or be in the process of completing all foundation requirements when doing internship placement. Students must petition the MSW Practice Committee in order to complete a summer block internship or other internship time periods outside of the standard time period allotted in the degree plan. All internships are under the supervision of field faculty, and all field agencies are approved in advance by the MSW Internship Coordinator and the appropriate curriculum committees.

Internship sites may include federal, state, and local government agencies; private, nonprofit organizations; and hospitals or other in-patient or out-patient facilities that work with or coordinate services for dysfunctional individuals, families, and groups. The agencies might be concerned with spouse or child abuse, physical or learning disabilities, long-term or terminal illness, drug or alcohol abuse, psychological disorders, juvenile delinquency, teen pregnancy, economic distress, or other forms of dysfunction.

Agencies are approved on the basis of their ability to further the educational objectives of the program. Selection criteria include adequacy of the learning environment, availability of client populations, opportunity to work with community resources, and opportunity for participation with staff in the agencies' organizational processes.

Curriculum Overview

The MSW program requires 60 credit hours and is divided into two academic years, the foundation year and the concentration year. Both years require an internship, which provides opportunities to apply classroom learning.

Foundation Year

The first academic year for full-time students or the first two years for part-time students is referred to as the foundation year which grounds students in the common body of knowledge, values, and skills of the social work profession transferable among settings, population groups, and problem areas. In the classroom, students are given content on social work values and ethics, diversity, social and economic justice, populations-at-risk, human behavior and the social environment, social welfare policy and services, social work practice, and research. In the internship, the student is expected to apply foundation knowledge, skills, values, and ethics to practice.

Concentration Year

The second year for full-time students or the third year for part-time students of the program prepares students for advanced practice with a concentration in advanced direct practice or management and community practice. Students gain additional knowledge and skills in their chosen concentration through internships and electives.

Advanced Direct Practice

Students who graduate from the advanced direct practice concentration have advanced skills in working autonomously and ethically with individuals, families, and groups in agency settings.

Management and Community Practice

Students who graduate from the management and community practice concentration are prepared with the conceptual, analytical, technical, and interpersonal skills needed for planning, organizing, coordinating, evaluating, and leadership associated with management and community practice in community-based programs, hospital social services, and state health and human service bureaucracies.

Program Options

There are three program options available to students pursuing an MSW degree. All programs are offered in Little Rock.

Full-time program

This program is designed for individuals who have a bachelor's degree in a field other than social work. It is designed to be completed in two years. The UALR MSW program requires students to have a baccalaureate degree or meet the program's liberal arts requirements (see admission packet) with a liberal arts perspective from an accredited college or university.

Part-time program

The part-time program is designed to be completed in three years, although a student may take up to four calendar years from the initial date of enrollment to complete the degree. A minimum of two courses must be taken each semester, with appropriate sequencing of courses as outlined in the curriculum. One of the goals of the part-time program is to develop opportunities for students who are employed in the human services to be able to complete their internships. Students in this part-time alternative would need support from their employing agencies for completing field work requirements. In an effort to make this equivalent to more traditional options for completing the program, some restrictions may apply to field work. It is important to note that the experiences of the work site internship should differ significantly from the current roles and responsibilities assumed by the student.

Advanced Standing Program

This program allows qualified students who have earned a bachelor of social work degree from an institution accredited by the Council on Social Work Education (during the previous seven years) to complete the MSW degree in a shorter, concentrated program. This program may be completed on either a full-time (12 months) or part-time (21 months) basis.

Special Student Status

Some social work elective courses are open to interested individuals for professional advancement or enrichment. If an individual is later admitted to the social work program, enrichment. If an individual is later admitted to the social work program, one Social Work elective is transferable toward the MSW degree. Enrollment in these courses does not guarantee admission.

Graduation Requirements

- Satisfactory completion of approved program of study as outlined above
- At least 3.0 GPA in all core courses
- Faculty recommendation for degree

Courses in Social Work

SOWK 5310 Social Gerontology

Prerequisite: graduate standing. This course explores the social aspects of aging – how do older adults affect society and how does society affect older adults? The interaction of older adults with society is examined along with many of our social institutions such as family, healthcare, government, and the economy. Also examined are the issues associated with our aging population and how those issues affect people of all ages. A number of current controversies associated with our changing population structure will be discussed in class.

SOWK 5330 Introduction to Animal Assisted Therapy

Course provides an overview of the interdisciplinary field of animal-assisted therapy and the human-animal bond. Course will include observations of AAT visits to human service settings and web enhanced classes.

SOWK 5336 Social Aspects of Death and Dying

Gerontology and social work seek to apply knowledge from the social sciences, medicine, and the humanities with the skills and values of the helping professions. The multidisciplinary study of death (thanatology) itself comes out of studying these different disciplines. There are many social, psychological, philosophical, and religious theories concerning the passage of death-- for both ourselves and those around us. We will study many diverse contributions in the social aspects of death and dying.

SOWK 5337 Adult Development and Aging

This course emphasizes the life course perspective as it looks at adult development and aging within the context of the social environment. Aspects of “successful aging” that will be examined cover growth and development from emerging adulthood to old age, and the impact that culture, gender, ethnicity, and individual differences have on these processes. Human development and aging is examined during early adulthood, middle adulthood, and late adulthood. We will study aspects of development that are common to persons at all ages across the life course, individual differences in development, and differences that characterize the separate age cohorts.

SOWK 7301 Foundations of Social Work Practice I

Pre or corequisite: SOWK 7330. Study of social work profession and roles, values, and ethics of the profession; the generalist perspective; ecosystems perspective; strengths focus; empowerment practice; and the skills of engagement, assessment, and planning.

SOWK 7302 Foundations of Social Work Practice II

Prerequisite: SOWK 7301. Continuation of SOWK 7301. Study of strategies and techniques of intervention with individuals, families, groups, organizations, and communities; practice evaluation; and termination.

SOWK 7316 Advanced Standing Seminar

Prerequisite: Advanced standing admission. Corequisite: SOWK 7603 and pre or corequisite SOWK 7370, 7391. Course is integrated with advanced standing internship to foster in-depth development of assessment, planning, intervention, and evaluation skills with a variety of client systems.

SOWK 7320 Health and Biology of Aging

Pre-requisite: Graduate Standing. Understanding the consequences of aging and the extension of life expectancy requires the concurrent understanding of the interrelationship of biology and behavior. Research on “normal” aging over the life span offers the potential of understanding the changes that occur with age so that we can use this understanding to anticipate and cope with those physiological and behavioral functions altered by aging in ourselves and as caregivers. The course will examine physiological and epidemiological studies of disease and aging as well as the alteration in sensory perception, muscle function, etc. Finally, the issues of interventions, realistic expectations, and ethics will also be examined.

SOWK 7321 Aging and Social Policy

Prerequisite: graduate standing. This course offers an overview of aging and social policy issues, especially at the state and federal levels of government. Non-governmental agencies and organizations are also included. The aging network, healthcare including Medicare and Medicaid, as well as Social Security and retirement financing are highlighted. The course begins with a historical perspective on how we have gotten to our present health care policies. It then describes the aging network as well as the programs and services for the older adult that comprise this network.

SOWK 7322 Assessment and Care Management of the Older Adult

Prerequisite: graduate standing. Assessment and Care Management with the Older Adult will offer students a comprehensive review of the emerging professional practice of Geriatric Care Management (GCM). Throughout this course students will review a variety of geriatric assessments as well as study case management tools such as engaging, assessing, planning, intervening, evaluating and terminating client cases. Critical thinking as an ethical professional will be emphasized as well as beginning interviewing skills.

SOWK 7323 Social and Emotional Implications of Illness and Disabilities

Prerequisite: graduate standing. Health care has become increasingly complex in the early 21st century. Those with a variety of developmental as well as acquired impairments and disabilities challenge the ability of society to mainstream a large minority of our citizens. An aging population with more chronic rather than acute health care needs is also a central concern. Finally, in the age of AIDS and other life threatening diseases, professional expertise in the psychological and social implications of illness and disability is a necessary skill. Professionals also have an increased responsibility to better understand the ethical as well as the bio-psycho-social-spiritual aspects of illness and disability in the individual, the family and the wider community.

SOWK 7330 Human Behavior in the Social Environment I

Prerequisite: program admission. This course covers human behavior theories supporting social work practice with individuals, families, groups, organizations, and communities. The ecological perspective and its impact on human development and non-mainstream groups will be addressed.

SOWK 7331 Foundations of Social Work Practice III

Prerequisite: SOWK 7330. This course explores the application of social work skills to practice within communities and organizations. Students will assess a target community, write grant proposals, and learn the practice of interactive supervision.

SOWK 7350 Social Welfare Policies and Services

Prerequisite: program admission. Study of the history and current structure of social welfare policy, the impact of discrimination, poverty and oppression on populations-at-risk, the response of society to social problems, and the skill of policy analysis.

SOWK 7370 Social Work Research Methods

Prerequisite: program admission or special permission from instructor. The study of social work research methodology, critical evaluation of published research, the values and ethics of research practice.

SOWK 7390 Diversity and Oppression

Prerequisite: program admission. Ethnic, racial, gender issues as related to social policy, human behavior and the social environment, practice issues; developmental, socioeconomic factors influencing gender roles; historical considerations and cultural and social context for social work practice among oppressed persons, people of color.

SOWK 7391 Assessment and Differential Diagnosis

Prerequisite: SOWK 7330. Psychopathology in children, adults; uses individual life cycle as framework for biological, social forces that prevent, limit individual social, psychological adaptation to environment during maturation process; emphasis on influence of gender and race on development of mental disorders, individual adaptation to social environment; use of Diagnostic and Statistical Manual, DSM-III-R as diagnostic reporting tool.

SOWK 7394 Social Work Practice in Schools

This course is an elective course designed to prepare students to be informed, resourceful, and proactive in providing services in the complex and dynamic context of the schools. The purpose of this course is to provide the social work student with knowledge of theories, concepts, and research about social work practice in schools. This course encourages students to engage in critical thinking which requires the synthesis and communication of relevant information about school social work theory and practice.

SOWK 8191 Guided Study

Prerequisites: consent of instructor, advisor, program director (Available, with a two-hour social work elective, to students from other graduate programs who wish to take social work electives but require three credit hours for their own program.). Directed individual study arranged by student.

SOWK 8204 Crisis Problem Solving

Prerequisite: completion of the foundation year graduate program. Theoretical concepts, treatment strategies for crisis situations; focus on planned brief treatment of individuals or families in stressful situations using cognitive or problem-solving approaches.

SOWK 8205 Group Treatment

Prerequisite: graduate standing. Group leadership to provide therapeutic intervention to members; leading groups with different needs, such as mental illness, antisocial behavior, addictions, neurosis, behavior changes.

SOWK 7392 Special Topics in Clinical Social Work

This course is focused on evidence-based practice models for clinical social work practice. This course presents current and contemporary mental and behavioral health treatment models and is highly application oriented. The overall goal of the course is to help students develop beginning level knowledge and skills in the treatment and prevention of psychosocial dysfunction, disability, or impairment, including emotional and mental disorders.

SOWK 7403 Social Work Internship I

Prerequisites or co-requisites: SOWK 7301, 7330, 7350, 7390. (SOWK 7403 and 7404 must be completed consecutively, in the same agency setting). Supervised direct service activities; practical experience in applying foundation theory, skills; developing integrated social work practice skills with individuals, families, groups, communities; focus on developing professional relationships, initial intervention stages with client systems; requires 240 clock hours of placement. Graded credit/no credit.

SOWK 7404 Social Work Internship II

Prerequisite: SOWK 7403. Prerequisites or co-requisites: SOWK 7302, 7331, 7370, 7391. (SOWK 7403 and 7404 must be completed consecutively, in the same agency setting). Continuation of SOWK 7403; requires 240 clock hours of placement. Graded credit/no credit.

SOWK 7603 Advanced Standing Social Work Internship

Prerequisites: Advanced Standing admission. Pre or co-requisites: SOWK 7370, 7391, 7316 and 7316 co-requisites. Supervised direct service activities; practical experience in applying foundation theory, skills; developing integrated work practice skills with individuals, families, groups, communities, organizations; focus on professional relationships, initial intervention stages with clients systems; requires 240 clock hours of placement. Six credit hours.

SOWK 7803 Social Work Block Internship

Co-requisites: SOWK 7301, 7302, 7330, 7331, 7350, 7370, 7390, 7391. 480 hours of supervised social work practice in applying foundation year theory, skills and social work values and ethics. Students practice engagement, interviewing, assessment planning, basic intervention, evaluation and termination skills at all systems levels.

SOWK 8159 Evaluation Research II

Prerequisite: SOWK 8259. Evaluation research design, data collection, data analysis, and reporting; the political contexts of needs assessment and program evaluation.

SOWK 8206 Psychodrama

Prerequisite: completion of the foundation year graduate program. Technique originated by J.L. Moreno; personality makeup, interpersonal relationships, emotional problems, decisions, conflicts are explored by dramatic enactment in a positive, supportive setting.

SOWK 8207 Child Behavior and Treatment

Prerequisite: completion of the foundation year graduate program. Psychosexual, social, cognitive, physical development of children; major diagnostic categories; treatment approaches reviewed, evaluated for appropriateness according to individual child, family environment needs.

SOWK 8208 Child Abuse and Treatment

Prerequisite: completion of the foundation year graduate program. Variables in child maltreatment; physical, psychological, emotional, social implications; social work methodologies; role of multi-disciplinary teams.

SOWK 8209 Community Social Work

Prerequisite: graduate standing. Social context, practice parameters of community social work; emphasis on organizational analysis, problem identification, community organization strategies for social change and institution building, leadership development, community research.

SOWK 8211 Social Work Practice with Older Adults

Prerequisite: graduate standing. Biopsychosocial/cultural approach to aging; includes demographic, attitudinal aspects; impact of race, gender, class, ethnicity; health, mental health issues; assessment factors; long-term care continuum; roles of families; special policy issues; social work approaches.

SOWK 8213 Supervision

Prerequisite: graduate standing. Purpose, functions, processes; emphasis on beginning-level interactional skills.

SOWK 8215 Domestic Violence

Prerequisite: graduate standing. Current theories, research, social work practice; violence against women, children, elderly.

SOWK 8218 Grief, Loss, and Social Work Practice

Prerequisite: graduate standing. Basic assessment and intervention skills for practice with client systems experiencing grief and loss.

SOWK 8230 Evidence-based Social Work Practice in Adult Mental Health

Prerequisite: graduate standing. Evidence-based Social Work Practice in Adult Mental Health builds on Assessment & Differential Diagnosis and provides knowledge of evidence-based practice approaches for adult clients who have a DSM- IV-TR diagnostic condition. This course will cover those psychiatric disorders commonly encountered in social work practice: anxiety, personality, mood, substance use, and psychotic disorders. Emphasis is placed on cultural and social aspects of mental health and issues important to populations at risk. An ecological and bio-psychosocial perspective is utilized to develop assessment and treatment strategies that are evidence-based and consistent with cultural and other issues related to diversity. The course will explore mental health care as it is delivered in a variety of settings: outpatient versus inpatient, residential and day treatment, acute versus long term, and private practice versus the community mental health setting. The course will enlighten the student to the range of issues, ethical and otherwise, that impact this population: legal, economic, relational, medical, and educational.

SOWK 8231 Addictions Treatment

Prerequisite: graduate standing. Dynamics of addiction, treatment; biological, social, societal aspects of addiction; implications for treating special populations.

SOWK 8234 Personality Theory

Prerequisite: graduate standing. Several frames of reference on personality theory; includes historical antecedents, major concepts, applicability to social work practice, limitations of various theories.

SOWK 8235 Spirituality in Social Work

Prerequisite: graduate standing. This course provides the general framework for dealing with spiritually sensitive social work situations. It provides the students with the content for dealing with the matters of the human spirit.

SOWK 8236 Human Sexuality and Social Work Practice

Prerequisite: completion of the foundation year graduate program. This course provides students with a multidisciplinary approach to human sexuality. Students will have the opportunity to explore views experiences, values, and beliefs and how these impact on the clients which they serve along with the societal and cultural issues that may impact upon clients of social work and other mental health professionals.

SOWK 8238 Women & Family Issues in Social Work

This course will examine women's and family issues in social welfare with particular attention to the social service delivery system, significant historical and contemporary federal/state policy issues, and the social work profession. Several special populations of women will be considered, including poor women, survivors of violence, and older women. Specific topics to be addressed in this course are work/family issues, welfare and poverty, violence against women, and caregiving.

SOWK 8251 Juvenile Delinquency

Prerequisite: graduate standing. Forms of unlawful behavior during adolescence, early adulthood; major theories of delinquent behavior, including control, anomie, subcultural, interactionalist, labeling, classical; major theories of justice, including classical, just desserts, deterrence, rehabilitation models.

SOWK 8253 Law and Social Work

Prerequisite: graduate standing. Areas of law that shape, regulate the social work profession; contributions, significance of legal issues to client services, the profession; legal policies that may control, restrict clients' lives.

SOWK 8259 Evaluation Research I

Prerequisite: SOWK 7370. Management and community practice applied to the methods of social work practice evaluation through needs assessment and program evaluation. Builds on foundations provided in SOWK 7370, extending into macro-practice research at the organizational and community level. Emphasizes empowerment evaluation as a mechanism to foster improvement and self-determination. A theories-of-change approach is used to guide evaluation.

SOWK 8271 Research Project

Prerequisites: SOWK 7370 and 8371 or consent of instructor. Steps in carrying out a research project; all phases of research methodology.

SOWK 8242 Global Perspective in Social Work

Prerequisite: Graduate Standing Building a first-year domestic social policy courses, the purpose of this course is to expose students to a variety of global social issues related to social welfare and social development. Using film as the medium students will engage in critical thinking and analysis of social welfare issues, and explore how Political, economical, cultural, religious, historical and environmental factors impact social welfare policies and the delivery of human services in different regions of the world. This course is useful for those who have had previous international experience and/or those who are interested in international social work and are looking for a forum in which such experiences and interests can be processed in the context of existing theoretical frameworks and models of social welfare service delivery.

SOWK 8240 Psychodynamic Psychotherapy

Psychodynamic Psychotherapy provides an overview of Freudian drive/structural theory and the central concepts of early psychoanalytic thinking. The basic principles of psychodynamic psychotherapy will then be covered with a review of how certain concepts proposed by Freud have been adhered to, changed, modified, or abandoned altogether. The theoretical basis for dynamic therapy will then be covered along with a brief overview of current schools of psychodynamic theory. An evidence-based ego-psychological/object relations approach to assessment and treatment of neurotic, borderline, and psychotic disorders is then be presented. The ego psychological component will address the assessment of person-in-situation factors; issues related to adaptation; and ego functions, including defense mechanisms that span the range of mature-higher/lower level-psychotic. Particular emphasis will be placed on the object relations component of this theory, focusing on the developmental trajectory of object relations and specific fixation points that result in character pathology, organized at a psychotic, borderline or neurotic level.

SOWK 8242 Global Perspective in Social Work

Prerequisite: Graduate Standing. Building a first-year domestic social policy courses, the purpose of this course is to expose students to a variety of global social issues related to social welfare and social development. Using film as the medium students will engage in critical thinking and analysis of social welfare issues, and explore how Political, economical, cultural, religious, historical and environmental factors impact social welfare policies and the delivery of human services in different regions of the world. This course is useful for those who have had previous international experience and/or those who are interested in international social work and are looking for a forum in which such experiences and interests can be processed in the context of existing theoretical frameworks and models of social welfare service delivery.

SOWK 8292 Guided Study

Prerequisites: consent of instructor, approval of course outline by school's Curriculum Committee. Directed individual study arranged by student.

SOWK 8301 Advanced Directed Practice I

Prerequisite: concentration year standing. Developing biopsychosocial framework for assessment, intervention; focus on careful assessment, diagnosis prior to clinical interventions.

SOWK 8302 Advanced Directed Practice II

Prerequisite: SOWK 8301 or MFT-GC admission. This course provides knowledge and skills about social work practice with couples and families. It studies the major schools of family theory, methods for practice with families, and systemic links between family, culture, and society.

SOWK 8303 Couples Treatment

Prerequisite: Completion of the Foundation Year of the MSW or similar MA program and admission to the MFT certificate program. Couples Treatment is a course designed to apply principles of family therapy theory to work with couples. Students are challenged to consider differences and similarities between individual, family, and couples treatment. Cognitive Behavioral Couples Therapy, Object Relations Couples Therapy, Brief Strategic Couples Therapy, and Narrative Couples Therapy will provide the theoretical foundation for examining issues couples face. Issues related to same-sex couples, domestic violence, infidelity, and addiction will be examined as part of the course.

SOWK 8305 Management and Community Practice I

Prerequisite: concentration year standing. Management, administration in social work, human services; includes decision making, leadership styles; basic tasks, roles, skills of managers; management processes such as financial, human resource management.

SOWK 8306 Management and Community Practice II

Prerequisite: SOWK 8305. Continuation of SOWK 8305; use of competing values framework (a meta-theoretical model) to integrate management skills of boundary-spanning, human relations, coordinating, directing.

SOWK 8308 Ethical Issues in Couple and Family Therapy

Prerequisite: admission to the MSW program or the MFT-GC program. Designed to provide knowledge necessary for understanding legal and ethical issues that confront practice. The legal responsibilities of the family therapist are examined with emphasis on personal and professional development. Ethical issues related to diversity are considered within the context of couple and family therapy.

SOWK 8309 Intergenerational Family Therapy

Prerequisite: admission to the MSW program or the MFT-GC program. Provides students with knowledge on family functioning across generations based on Murray Bowen's theories. Application of theories through the use of family assessment and intervention techniques.

SOWK 8310 Sociology of the Family

Prerequisite: admission to the MSW program or the MFT-GC program. Course will focus on the family as an institution responsive to social and economic change. It will provide a knowledge base in institutional and historical aspects of the family. The course is required for the Marriage and Family Certificate.

SOWK 8311 Family Life Cycle

Prerequisite: Graduate Standing. Focus on the theoretical underpinnings of the many and varied life cycles families experience. Particular emphasis will be placed on cultural influences and populations at risk.

SOWK 8312 Play Therapy

Prerequisite: Concentration year standing, MFT-GC, program or instructor permission. This course provides introductory instruction in history, theories, and applications of play therapy consistent with Association of Play Therapy (APT) requirements. Students are expected to have successfully completed course work in child development (e.g., Advanced Direct Practices I) Special issues affecting oppressed children will be addressed, including: parent-child problems, divorce, abuse/neglect / abandonment, etc. Diversity issues will also be explored as key components of competent play therapy practice. Students will be challenged to apply what they are learning about work with children in mock clinical sessions. This three-hour graduate level semester course, according to APA, is consistent with APT requirements for instruction, and provides 67.5 Continuing Education (CE) hours toward the mandatory 150 required for RPT certification.

SOWK 8320 Family Mediation

Focuses on social work practice in family mediation. It will equip students with the skills and information needed to meet requirements of the Arkansas Dispute Resolution Commission for their family mediation roster.

SOWK 8340 Aging and Social Policy II

Health needs of the elderly and health care systems that address them; mechanisms for health care delivery and for financing institutional community-based care; effects for elderly of reform proposals.

SOWK 8346 Family in Late Life

Prerequisite: graduate standing. Family life of the elderly; includes late-life marital relationships; widowhood, living alone; relations with children, grandchildren, siblings, other kin; alternative, innovative lifestyles; neglect, abuse of the elderly; demographic, structural changes in family, society that affect these matters; core concept is the family as a natural support system for the elderly; its potential and limitations in a context of community support networks.

SOWK 8371 Statistics for Social Work

Prerequisite: SOWK 7370 or special permission from Instructor. Statistics, their use in analyzing data; probability, inferential, decision-making, basic statistics; includes central tendencies, variability, data distributions, bivariate, multivariate procedures; critiquing articles in social work journals.

SOWK 8390 Advanced Direct Practice III

Prerequisite: SOWK 8301. Corequisite: SOWK 8302. This course provides knowledge about social work practice with groups with an emphasis on the application of group theory to many forms of groups in a variety of settings. This course will include content on supervision of workers learning group practice skills.

SOWK 8503 Advanced Direct Practice Internship I

Prerequisite: concentration year standing. Pre or corequisite: SOWK 8301. (SOWK 8503 and 8504 must be completed consecutively, in the same agency setting). Hands-on experience with individuals, groups, families; emphasis on applying concepts from SOWK 8301; requires 360 clock hours of internship placement. Graded credit/no credit.

SOWK 8504 Advanced Direct Practice Internship II

Prerequisites: Social Work 8301, 8503. Pre or corequisite: SOWK 8302. (Social Work 8503 and 8504 must be completed consecutively, in the same agency setting). Continuation of Social Work 8503; focus on integrating knowledge in preparation for professional practice; requires 360 clock hours of placement. Graded credit/no credit.

SOWK 8507 Internship I Management & Community Practice

Prerequisite: concentration year standing. Corequisite: SOWK 8305. (SOWK 8507 and 8508 must be completed consecutively, in the same agency setting). Experience working in a social service agency in an administrative capacity; requires 360 clock hours of placement. Graded credit/no credit.

SOWK 8508 Internship II Management & Community Practice

Prerequisites: SOWK 8305, 8507. Corequisite: SOWK 8306, 8159. (SOWK 8507 and 8508 must be completed consecutively and in the same agency setting). Continuation of SOWK 8507; focus on integrating knowledge, assuming responsibility for administrative functions, including planning, evaluation. Graded credit/no credit.

DONAGHEY COLLEGE OF ENGINEERING AND INFORMATION TECHNOLOGY (EIT)

EIT Building, Room 621, (501) 569-3333, (501) 569-8002 (fax), ualr.edu/eit/

Professor Eric Sandgren, Dean

Professor Abhijit Bhattacharyya, Associate Dean

Shawna Diaz, Executive Director of Finance and Administration

The mission of the Donaghey College of Engineering and Information Technology is to educate the next generation of technical professionals in the skills and knowledge base necessary to create and manage the technology based enterprises that will provide future economic growth and an improved standard of living for the State of Arkansas and its citizens. The college's expectation is for every Arkansas child to have the opportunity to participate in the new knowledge-based digital economy of the 21st century. This mission includes technological education at all levels, from high school through advanced graduate degrees, as well as contributions through scholarly research and community involvement.

In meeting this mission, the college offers a wide range of graduate degrees. Graduate students have the option to pursue a Ph.D. in Integrated Computing or Engineering Science and Systems. The College participates in the M.S.-Ph.D. program in Bioinformatics (See program entry in the College of Science) offered jointly with the University of Arkansas for Medical Sciences. Additional graduate programs in the College include an M.S. degree in Computer Science, an M.S. degree in Construction Management, a graduate certificate in Geospatial Technology, a graduate certificate program and an MS degree in Information Quality as well as a graduate certificate program in Technology Innovation. It also offers a graduate certificate program and an M.S. degree in Systems Engineering. Extensive outreach to the general undergraduate population is through our Computer Literacy classes and the acclaimed Information Technology (IT) minor, designed to provide the non-technology majors with the IT tools necessary to command leadership positions in today's IT-enabled enterprises.

Outreach to the community includes the IT certificate program for in-service learning and extensive partnering with high schools across the state for in-school activities and summer programs. Specific emphasis is on partnerships with the local and regional industries ranging from direct company input into our programs to in-service courses to directed research projects.

Program	Certificate or Degree Program	Department
Bioinformatics	Master's (M.S.)	Multi-departmental joint degree
Bioinformatics	Doctorate (Ph.D.)	Multi-departmental joint degree
Computer Science	Master's (M.S.)	Computer Science
Construction Management	Master's (M.S.)	Construction Management and Civil and Construction Engineering
Engineering Science & Systems	Doctorate (Ph.D.)	Systems Engineering
Geospatial Technology	Graduate Certificate	Earth Sciences
Information Quality	Graduate Certificate	Information Science
Information Quality	Master's (M.S.)	Information Science
Integrated Computing	Doctorate (Ph.D.)	Computer Science
Systems Engineering	Graduate Certificate	Systems Engineering
Systems Engineering	Master's (M.S.)	Systems Engineering
Technology Innovation	Graduate Certificate	Information Science

EIT, Room 303

(501) 569-8951

The University of Arkansas at Little Rock (UALR) and the University of Arkansas for Medical Sciences (UAMS) jointly offer master's and doctorate degrees in bioinformatics. Combining the academic, clinical, and research resources of UAMS with the computational, scientific, academic, and research capabilities of UALR, this program prepares students to function in an interdisciplinary research environment. For more information, visit the Bioinformatics graduate program's website at ualr.edu/bioinformatics.

Admission Requirements for both M.S. and Ph.D.

Applicants are expected to have a minimum of a four-year undergraduate degree (BS or BA) in the life sciences, statistics, or information/computer sciences. Students with an undergraduate degree in another field may be considered for admission if they have either relevant work experience in one of these three areas or complete sufficient remedial course work as defined below. Students who have not satisfactorily completed the following courses, or their equivalent, as part of their academic studies will be required to complete them on a remedial basis:

Genetics

A junior-level, life science course equivalent to UALR's BIOL 3300 Genetics

Statistics

A junior-level, calculus-based course equivalent to UALR's STAT 3352 Applied Statistics I

Programming

Some programming experience; a sophomore-level introduction to Java programming equivalent to UALR's IFSC 2300 Object-Oriented Technology course is preferred

Databases

A junior-level course equivalent to UALR's IFSC 3320 Database Concepts is recommended

Students will have to meet the minimum admission requirement of a GPA of 3.0 or a GPA of 3.3 or greater on their last 60 credit hours as an undergraduate. GRE scores, a letter of intent, a résumé and letters of reference are considered in the admission process; TOEFL scores are required of international students who have not matriculated from a university in a country where the primary language is English. (Please see the UALR Graduate School's requirement for English proficiency exams.)

Master of Science in Bioinformatics

Program Requirements

The M.S. program is built around four cores: bioinformatics, biostatistics/modeling/simulation, information/computer science, and the life sciences. Students must complete thirty eight (38) credit hours consisting of a minimum of two, approved, graduate-level courses in each of the biostatistics/modeling/simulation, information/computer science, and life science cores. Additionally, students are required to participate in four lab rotations for two credits and to complete the following bioinformatics courses:

BINF 7193 Biosciences and Bioinformatics Seminar (for every semester enrolled and a minimum of four semesters)

BINF 5445 Bioinformatics Theory and Applications

BINF 7295 Practical Topics in Science Management

BINF 8445 Bioinformatics Master's Capstone Project

Master's Advising

Master's students are advised by the Bioinformatics Program Director.

M.S. Graduation Requirements

Successful completion of an approved program of study with a minimum GPA of 3.0 with no more than one grade below a B and successful completion of the writing requirement.

Doctor of Philosophy in Bioinformatics

Program Requirements

The Ph.D. requires completion of the MS degree in bioinformatics with a grade of A on the student's Bioinformatics Master's Capstone Project. Enrolling in the BINF 7193 Bioinformatics Seminar every semester (minimum of four credits required) and a minimum of 32 credit hours of research complete the Ph.D. program culminating in the successful defense of the student's dissertation research. Students completing the MS degree in bioinformatics at another institution may be admitted directly in the Ph.D. program, but may need to complete additional course work to cover all four cores of the UALR/UAMS MS degree program.

Within the first six months of entering the Ph.D. program, students must have an approved advisory committee and defend their dissertation proposals as part of their Candidacy Examination. The dissertation proposal should be written according to standard grant format as would be used for submitting a proposal to NIH or NSF.

Important Program Information

Transfer of Credit and Advanced Placement

Transferability of credit is determined by the Program Director, based upon the applicability of the courses to the student's educational goals and research project. Transfer of credit may not be granted when courses have been used to meet other degree requirements. Additionally, students with relevant graduate degrees in related fields may petition the Program Director for an Advanced Placement which reduces the total credits required for a Master's degree to thirty-two (32).

Graduate Assistantships

Graduate assistantships that support research opportunities are available to qualified full-time students on a highly competitive basis. Tuition is paid, and a stipend is provided for living expenses. Students must pay registration fees, buy textbooks, and purchase any necessary support materials. For more information about graduate assistantships, the application process, and other financial assistance opportunities, visit the website at ualr.edu/bioinformatics.

A student supported by a graduate assistantship may not take less than nine credit hours during the Fall and Spring semesters and is prohibited from any other employment.

Entrance Exams

In the week prior to the start of classes, incoming students may be asked to undergo a series of entrance exams or placement interviews in which the student must demonstrate proficiency in the core areas. The student's first semester of study will be based on the results of these exams/interviews and his/her interests. A student may be required to take additional undergraduate courses, which will not count toward his/her degree program, to remedy any deficiencies. Courses numbered at the 4000-level or below do not count for graduation credit and may not be covered under the assistantship tuition waiver.

Writing Requirement

An English Writing Proficiency Exam (WPE) will be offered early each Spring term. This exam will assess the student's ability to communicate in a written format. Each student must pass this exam to fulfill graduation requirements. A student who does not pass the WPE is required to take the English Writing Proficiency Laboratory (EWPL) which is offered each Spring term. The student must take the EWPL each Spring term until he/she passes.

International Student Requirements

International students whose native language is not English must take the English proficiency exam and have an official score that meets the minimum standards established by the UALR Graduate School. (Please see the UALR Graduate School's website for information on approved exams and minimum required score.) Only students who have studied full-time for two or more years at a college or university where English is the language of instruction located in a country where English is the native language are exempt from this English proficiency exam. Exceptions to this policy must be approved by the UALR Graduate School.

Dissertation Defense

Students will orally defend their research before their Doctoral Advisory Committee. Printed copies of the penultimate draft of the dissertation must be delivered to the Advisory Committee members at least two weeks prior to the defense. The defense will be open to the public and must be announced at least two weeks in advance by the Program Director. Following the open presentation session (including the typical question-and-answer period) will be a closed examination of the candidate by the Doctoral Advisory Committee. The examination can be wide-ranging but will usually utilize the student's research as a starting point. At the completion of the examination, the student will be temporarily excused and the Doctoral Advisor and Advisory Committee will vote to either pass or fail the student.

Doctoral Advisory Committee

The student's Doctoral Advisory Committee will be composed of a minimum of five members, including the student's doctoral advisor who will serve as the Committee chair. Four of the Committee members, including the chair, must hold bioinformatics graduate faculty status. The fifth member must be an external member who is not affiliated with the program, UALR, or UAMS. The Bioinformatics Graduate Coordinator in conjunction with the Bioinformatics Steering Committee must approve the Committee constituency.

The dissertation subject is selected by the student and Doctoral Advisory Committee at least two years prior to the oral defense of the research. It must be a scholarly contribution to a major field of bioinformatics and involve all four cores of the program. The written dissertation format must follow the UALR Graduate School Dissertation and Thesis Guidelines found on the Graduate School website. Changes may not be made to the student's Doctoral Advisory Committee within six months of the dissertation defense. In event of extenuating circumstances, an appeal may be made to the Bioinformatics Program Director to change this requirement.

Candidacy Examination

At least eighteen (18) months prior to the dissertation defense, the candidate must present a proposal for his/her dissertation work to his/her Doctoral Advisory Committee. At this time, the Committee will evaluate the dissertation proposal, the student's ability to undertake the research program successfully, and whether the applicant possesses the attributes of a doctoral candidate as part of a comprehensive oral candidacy examination. Only after completing this requirement are student eligible to participate in the UAMS Research Induction Ceremony.

Ph.D. Graduation Requirements

- Successful completion of an approved program of study (including completion of the Master of Science in Bioinformatics degree) with a minimum GPA of 3.0 with no more than one grade below a B;
- Successful completion of the candidacy examination and dissertation proposal defense; proposal should be written using a grant proposal format;
- Successful completion of a grant proposal and its oral presentation;
- Successful completion of the dissertation and oral defense; and
- Successful completion of the writing requirement.

Courses in Bioinformatics

BINF 5445 Bioinformatics Theory and Applications

Prerequisites: Course Director's permission plus the following: BIOL 3300: Genetics or equivalent, IFSC 3320: Database Concepts or equivalent, IFSC 2300: Object-oriented Technology (Java Programming) or experience with another programming language such as "C" or "C++", STAT 3352: Applied Statistics I or equivalent, MATH 1304: Calculus I or equivalent recommended, BINF 2345: Introduction to Bioinformatics recommended, some exposure to molecular biology recommended. An overview of concepts central to the study and application of bioinformatics drawing upon the fields of biostatistics, computer and information science, and the life sciences. Three hours of lecture plus two hours of laboratory per week. Four credit hours.

BINF 7145, 7245 Introduction to Bioinformatics Research

Prerequisite: permission of instructor. Rotations through the bioinformatics, biostatistics, information science, and/or life sciences research laboratories of faculty participating in the bioinformatics graduate program.

BINF 7193 Bioinformatics Seminar

Prerequisites: bioinformatics graduate student status or instructor's consent. A survey of scientific and technical topics relevant to bioinformatics. The seminar has two components: attending seminars hosted primarily by BINF Ph.D. students and participating in a presentation workshop where students present seminars on their research interests. A passing grade is required in both components for a passing grade in the course. One credit hour.

BINF 7199, 7299, 7399, 7499 Special Topics in Bioinformatics

Prerequisites: instructor's consent. Detailed study in bioinformatics and related areas; may be lecture or lecture and laboratory, depending on specific topics. Variable credit of one to four hours. Offered on demand.

BINF 7295 Practical Topics in Science Management

A survey of practical topics relevant to practicing scientists and engineers such as ethics, project management, and grant writing. While an emphasis is placed on bioinformatics, topics will be of interest to all participating in science and engineering projects. Two credit hours. Cross-listed with ASCI 7295.

BINF 8445 Bioinformatics Master's Capstone Project

Prerequisites: Course Director's permission and completion of at least one graduate-level course in each of the four core areas of the UALR/UAMS Joint Graduate Program in Bioinformatics (must include BINF 5445: Bioinformatics Theory and Applications). This course provides a structured context in which the student completes an individual capstone project for the Masters Degree in Bioinformatics. The project draws upon all four core areas of the graduate program and is done under the direction of a project mentor who is a member of the graduate faculty of the UALR/UAMS Joint Graduate Program in Bioinformatics. Four credit hours.

BINF 9100-9900 Doctoral Research/Dissertation

Prerequisite: Consent of advisor. Bioinformatics doctoral research leading to Ph.D. dissertation.

EIT Building, Room 579

(501) 569-8130

ualr.edu/computerscience/

Master of Science in Computer Science

The Master of Science in Computer Science program at UALR reflects current trends in the computer science discipline and provides students with a solid theoretical and practical foundation for careers in computer science and/or advanced graduate studies.

The curriculum consists of two parts: 1) core and 2) specialization course work. Core curriculum refers to required courses that provide students with fundamental knowledge and skills. Building on the core foundation, the specialization course work allows students the opportunity to select electives to acquire more in-depth knowledge and skills in the students' specific areas of interest.

To satisfy the requirements for the master's degree, in addition to the course work, students must complete one of the following program options: thesis, project, or comprehensive examination.

The program is accessible to day and evening students and lends itself to full- and part-time study.

Additional information is available at ualr.edu/computerscience/.

Admission Requirements

- Baccalaureate degree in computer science, engineering, mathematics, or a related discipline from an accredited institution
- Cumulative Grade Point Average (GPA) of at least 3.0 (4.0 scale)
- Where applicable, Test of English as a Foreign Language (TOEFL) score of 80 or above or equivalent IELTS score is recommended.
- Graduate Record Examination (GRE) general test, with quantitative reasoning score of 156 or above, a verbal reasoning score of 145 or above, and analytical writing score 3.0 or above. The desired combined quantitative and verbal score on the GRE is 301.
- Completion of deficiency course work, if conditional admission is granted.

For more information, visit ualr.edu/computerscience/.

Deficiency Course Work

All students seeking admission to the program must have completed (with a grade of B or greater in each course) undergraduate course work equivalent to the following:

CPSC 2380 Data Structures and Algorithms

CPSC 2382 Introduction to Computer Systems and Assembly Language

CPSC 3370 Net Centric Computing I: Systems Concepts

CPSC 3371 Net Centric Computing II: Language Concepts

CPSC 3375 Database Concepts I

CPSC 3482 Computer Organization I

MATH 1451 Calculus I and 1452 Calculus II

MATH 2310 Discrete Mathematics

Students must complete deficiency course work prior to enrolling in graduate classes. Exception: students with a single deficiency course remaining may register for that class and graduate classes as long as no prerequisites are violated.

Waiver of deficiency courses is at the discretion of the Computer Science Graduate Committee.

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the Computer Science Graduate Coordinator for information.

Program Requirements

Core Course Work

All students must take the following 5 courses (15 credit hours):

- CPSC 7311 Software Engineering
- CPSC 7321 Operating Systems
- CPSC 7331 Computer Architecture
- CPSC 7341 Telecommunications and Networking
- CPSC 7385 Analysis of Algorithms

Specialization Course Work

Students must choose five specialization classes (three if the thesis option is selected) from the Department's graduate-level courses. Students are strongly encouraged to select courses with the guidance of their graduate advisors with the goal of in-depth exploration of a particular area of computer science. Students may take a maximum of two 5000-level courses as part of their specialization course work. Additionally, the total number of special topic/independent study classes cannot exceed two. Substitution of up to two graduate electives from other disciplines (in particular Applied Science, Systems Engineering, Information Science, and Mathematical Sciences) for specialization course work is at the discretion of the Computer Science Graduate Coordinator.

Transfer of credit hours earned elsewhere

Maximum of six (6) graduate credit hours can be transferred into the graduate degree plan.

Program Options

All students must complete one of the following options:

- Comprehensive Graduate Exam: 31 credit hours of course work plus a written comprehensive examination covering the core curriculum. The examination is offered once per regular semester and can be taken only twice.
- Graduate Project: 34 credit hours, consisting of 31 hours of course work plus 3 credit hours of CPSC 7398 Graduate Project.
- Graduate Thesis: 31 credit hours, consisting of 25 hours of course work plus 6 credit hours of CPSC 8100-8600 Thesis.

Students choosing the project or thesis options must complete the core curriculum prior to enrolling in CPSC 7398 Graduate Project or CPSC 8100-8600 Thesis. Additionally, these students must form a Thesis/Project Committee must have at least two members, including the advisor, from the Computer Science Department and can have at most one member from other departments. Following the recommendation of the Thesis/Project Committee, the student must schedule an oral proposal presentation and a defense for the graduate project or thesis.

Performance Requirements

- Students receiving a C grade will be warned that their academic performance is unacceptable and their status will be reviewed by the Computer Science Graduate Committee, which will suggest corrective action.
- Upon receiving two Cs or either a D or an F, the student will be dismissed from the program.
- Courses with grades of B or greater may not be repeated.
- Core courses with grade C do not satisfy the degree requirement and must be repeated. A minimum score of B is required for each of the core courses.

- Deviation from the degree plan requires the approval of the Computer Science Graduate Committee.
- Conditionally admitted students must earn a Grade Point Average (GPA) above 3.5 in the first 9 hours and may not receive a grade of incomplete (I).

Academic Advising

Each semester, academic advising is required for every student prior to course registration. A copy of the approved courses must be filed with the Graduate School.

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study and satisfying all requirements specified in Performance Requirements
- Successful completion of one of the program options specified in Program Options

Courses in Computer Science

CPSC 5360 Computer Security

Prerequisites: CPSC 3370 or equivalent of the consent of the instructor. Increasing reliance on our computer based infrastructure elements along with the information driven nature of today's business require a solid and in-depth understanding of security issues pertinent to the systems. The topics include threats, assumptions, assurance, confidentiality, integrity, availability, access control matrix and policies, security models, requirements imposed by policies, protection models, covert channels, formal methods for security, designing and evaluating systems, intrusion detection, auditing, and other contemporary issues. Three hour lecture per week. Three credit hours. Not open to students with credit for CPSC 4360.

CPSC 5366 Interactive Computer Graphics and Animation

Prerequisites: Graduate Standing. Knowledge of C, C++ or Java Programming. Approval from the instructor. This course introduces computer graphics and all details of the design of modern graphic architecture. The topics covered include two - and three - dimensional modeling and transformation, lighting and shading, animation techniques, and an introduction to OpenGL. Three hours lecture; three credit hours. Not open to students with CPSC 4366.

CPSC 5372 Object-oriented Programming

Prerequisites: working knowledge of a procedural programming language and UNIX operating system, or consent of the instructor. Concepts of object-oriented analysis, design, and implementation. Object-oriented programming in C++, Smalltalk, Java, and/or another current object-oriented programming language.

CPSC 5373 Fundamentals of Software Engineering

Prerequisite: Graduate Standing. This is a foundational course that covers fundamentals of modern software engineering. Topics included are: requirements definition, analysis, and modeling including use cases and use case paths, domain names, state transition diagrams; techniques to increase robustness and avoid disastrous defects; object oriented architecture and design patterns and specification in UML; performance impact of design choices; analysis of designs regarding maintainability and testability; security engineering; practical system test and glass - box testing fundamentals; verification of test coverage via decision tables and state transition tables. Three hours lecture per week. Three credit hours. Not open to students with credit for CPSC 4373.

CPSC 5376 Applied Cryptography

Prerequisites: CPSC 2380, MATH 2310, and STAT 3352 or equivalents. A survey and study of the major cryptographic techniques, algorithms, and implementations, with emphasis on applications to communications and network security. Intended as a practical introduction to the current state-of-the-art of cryptographic usage. Three hours lecture. Three credit hours.

CPSC 5199-5499 Special Topics

Prerequisites: graduate standing, consent of instructor. Various topics in applied computer science, selected from the areas of intelligent systems and computer systems design. On demand.

CPSC 5381 Computer Architecture and Design

Prerequisite: Graduate Standing. This course addresses the architecture and design of modern microprocessor computers. In it adheres to the principle of "no mysteries" and reveals all the details of the design of modern pipeline microprocessor system. The topics covered include formal description of computer architecture and design, instruction set architectures, processor design of modern computers, pipeline and instruction level parallelism, memory system design, and input and output systems. Not open to students with credit for CPSC 4381.

CPSC 5382 Compiler Construction and Theory

Prerequisites: Graduate Standing. The fundamental principles of compilers such as finite state machines, context free grammar, are studied. The compilation techniques covered include compile and run- time symbol tables, lexical analysis syntax analysis, semantic analysis, object code generation, error diagnostic and optimization. Three hours lecture. Three credit hours. Not open to students with credit for CPSC 4382.

CPSC 5384 Computer Networks

Prerequisites: Graduate Standing. This course is an introduction to the design and analysis of computer networks. The course covers a breadth of topics including computer communications architecture and protocols, local and wide area networks, IP networks, bridging and routing, Ethernet, wireless LANs, sockets programming, and distributed applications. Three hours lecture; three credit hours. Not open to students with credit for CPSC 4382.

CPSC 5388 Smart Software Systems

Prerequisites: Graduate Standing. Ability to perform independently and as a team member is absolutely essential. A working knowledge of C, C++, Java and a course in digital logic/ assembly language programming is very much desired. This class will involve extensive independent work with your group and the instructor to plan and implement an embedded software systems project. Three hours lecture; three credit hours. Not open to students with credit for CPSC 4388.

CPSC 7101 Research Methodology

Prerequisites: Graduate Standing. A one-credit course in a set of three, introducing students to the research methodology of doctoral level research in the Integrated Computing field. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the Integrated Computing discipline.

CPSC 7102 Research Tools

Prerequisites: Graduate Standing. A one-credit course in a set of three, introducing students to the research methodology of doctoral level research in the Integrated Computing field. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the Integrated Computing discipline.

CPSC 7103 Research Applications

Prerequisites: SYEN / IFSC / CPSC 7101 and 7102. A one-credit course in a set of three, introducing students to the research methodology of doctoral level research in the Integrated Computing field. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the Integrated Computing discipline. Students may with permission of the other Graduate Coordinator concurrently enroll in this course with either SYEN / IFSC / CPSC 7101 or 7102.

CPSC 7190 Graduate Seminar

Prerequisite: Graduate Standing. A weekly expository lecture series by the faculty and invited speakers on current research areas.

CPSC 7301 Essentials of Computer Software

Prerequisites: Graduate Standing with an engineering or science degree and at least one programming language of C, C++ or Java. This course introduces students to important concepts and techniques in developing software and internet based applications. Topics include: programming language paradigms, data structures, algorithms and programming environments: compiled versus interpreted environments, web based languages and scripting techniques, data access techniques and support for secure protocols, methods for querying and updating structured web documents and semi structured data. Language issues in the development and management of commercial projects, etc. This course and CPSC 7302 will prepare the science or engineering graduates for the computer science master program and the credit of this course is not counted towards the requirement of the master program. Three hours lecture and three credit hours.

CPSC 7302 Essentials of Computer Systems

Prerequisites: Graduate Standing with an engineering or science degree and at least one programming language of C, C++ or Java. This course takes an integrated approach to cover the major components of the complete computer system: digital logic, computer organization and architecture, programming languages and compilers, and operating systems and computer networks. This course and CPSC 7301 will prepare the science or engineering graduates for the computer science master's program and the credit of this course is not counted towards the requirement of the master's program. Three hours lecture and three credit hours.

CPSC 7311 Software Engineering

Prerequisites: Graduate Standing and a working knowledge of C or C++. An overview of the software development paradigm to include the software life cycle, prototyping and object-orientation; reliability, quality assurance, formal methods, and CASE tools.

CPSC 7312 Parallel Processing

Prerequisites: Graduate Standing; CPSC 2380 and CPSC 3482. Concepts of parallel computing, parallel architectures and interconnection networks; parallel programming and applications; basic paradigms and primitives, programming using PVM and MPI; efficient mapping of programs, automatic parallelization of serial code.

CPSC 7313 Concurrent Software System Architecture

Prerequisite: CPSC 5373 or permission of the instructor based on an existing background in object orientation methodology. This course covers the internal issues of modern software engineering. Topics include requirements of interface definition, notation, and analysis of systems of programs; software systems architecture issues, synchronization while managing shared data stores, and ensuring the architecture supports performance goals; concurrent task structuring criteria; software architecture patterns for common categories of software systems; concurrency support including enforcing mutual exclusion, engineering for deadlock avoidance, and ensuring liveness; design for testability; architecture performance analysis, performance design patterns, and anti-patterns. Three hour lectures. Three credit hours.

CPSC 7314 Integrated Software System Engineering

Prerequisites: CPSC 4373/5373. This course covers the integration related issues of modern software engineering. Topics include but not limited to specification of use cases for a distributed application; design and development concerns such as fault tolerance, reliability, security, interoperability; how these concerns influence the placement of functionality in the distributed environment—subsystem structuring criteria; design that allows upgrades and modifications of installed distributed systems; representation of timing sequences; performance analysis of concurrent and distributed systems; design for testability; distributed architecture design patterns; other issues about testing distributed systems. Three hour lectures. Three credit hours.

CPSC 7321 Operating Systems

Prerequisites: CPSC 3380 and 3482; working knowledge of C, C++, or Java Programming Language, and UNIX. Advanced topics in operating systems; process synchronization, deadlock, concurrency; fault tolerance, protection and security; distributed operating systems, multiprocessor operating systems.

CPSC 7322 Distributed Systems

Prerequisites: CPSC 3380 and 3482; working knowledge of C, C++, or Java Programming Language, and UNIX. Foundations of distributed operating systems; design and implementation of distributed systems; communication methods for open systems; kernel facilities; file management, naming and lock synchronization; transactional services for shared data.

CPSC 7325 Software Security Assessment

Prerequisite: CPSC 5360 or Consent of Instructor. Today's networked and complex software not only increases number of potential vulnerabilities but also increases risk associated with vulnerabilities. The industry-specific regulations further necessitate building software with the minimum number of vulnerabilities. This course delivers the know-how of dealing with software vulnerabilities. The topics covered include Software Vulnerability Fundamentals, Auditing and Black Box Testing, Design, Implementation, and Operational Vulnerabilities, Design and Operational Review, Attack Surface; Insecure Defaults; Access Control; Secure Channels, Application Review Process, Code-Auditing Strategies, Software Vulnerabilities, Assessing Memory Corruption, Synchronization and State, Vulnerabilities in Practice, Documentation of Findings.

CPSC 7326 Malware Analysis

Prerequisite: CPSC 4360/5360 or Consent of Instructor. Malware, despite the wide-spread use of anti-malware tools, still persists to exist in large-scale. Malware outbreaks can cost businesses large sums of money through business disruption, harming reputation, and recovery efforts. This class offers a thorough analysis of Malware including cutting edge techniques to detect and deal with it. Topics covered include History and Prevalence of Malicious Code, Types of Malicious Code, Infection Mechanisms and Targets, Virus Propagation Mechanisms, Defending against Viruses, Worms and Worm Components, Impediments to Worm Spread, Super Worms, Malicious Mobile Code, Backdoors, Polymorphic Malware, Rootkits, Process for Malware Analysis.

CPSC 7331 Computer Architecture

Prerequisite: CPSC 3482. A study of computer architecture fundamentals; the impact of technology on architecture cost and performance; Instruction Set Architecture; design and analysis of the building blocks of computer systems, including data path, control, and memory hierarchy; recent architectural developments.

CPSC 7332 Advanced Computer Architecture

Prerequisite: CPSC 7331. An in-depth study of recent advances in computer architecture; speedup architectural techniques for high performance computer systems; caches and memory hierarchy; RISC and Superscalar computer architectures.

CPSC 7333 VLSI Design

Prerequisite: CPSC 3482. This course introduces the principles of CMOS VLSI technology and design; design methodologies from concept to implementation of VLSI chips; Mentor Graphics and Cadence software packages that support design, layout, and verification.

CPSC 7334 Digital Systems and Hardware Design Languages

Prerequisites: Computer Science 3482 and working knowledge of C. Architecture of a representative 32-bit processor, system building blocks, design conventions; HDL languages; modeling, simulation and verification of the representative processor.

CPSC 7341 Telecommunications and Networking

Prerequisite: Graduate Standing. Fundamentals of data communications; topologies and transmission media; protocol architecture; LAN, MAN, and WAN systems; network design issues.

CPSC 7342 Advanced Computer Networking

Prerequisite: CPSC 7341. Advanced concepts of computer networks; network hardware and software; preference models; data communications services; network standardization; design issues and their applications.

CPSC 7343 Sensor Networks

Prerequisites: CPSC 4384/5384. This course aims to develop fundamental understanding of sensor network systems. It covers architectures and communications protocols for sensor networks. Node and network architectures, naming and addressing, time synchronization, localization and positioning, topology control, and content-based networking are all covered. At the completion of the course, students will understand how sensor networks work as intelligent and coordinated systems.

CPSC 7351 Database Design

Prerequisite: CPSC 2380 and 3375, Mathematics 2310. Design process, objectives, techniques, syntactic and semantic analysis design; entity relationships model, binary and n-ary relationships, minimality of relations, recursive relationships, role-modeling structures, aggregate objects, conversion methods, implementation models, evaluating design, choosing design methodologies.

CPSC 7352 Advanced Database Issues

Prerequisite: CPSC 7351. Advanced issues in distributed databases, transaction systems, database machines, database mining, expert database systems, object-oriented databases, and extended data models.

CPSC 7361 Computer Graphics

Prerequisites: MATH 1305; working knowledge of C programming. Introduction to computer graphics and graphic systems; output primitives and attributes; two-dimensional graphics: geometric transformations, viewing; three-dimensional graphics: object representation, geometric and modeling transformations and viewing; illumination models and animation; user interface and interactive input.

CPSC 7362 Advanced Computer Graphics

Prerequisite: CPSC 7361. Advanced concepts in two-dimensional graphics and three-dimensional graphics; object representations, geometric and modeling transformations, viewing, NURBS curves and surfaces; texture mapping, visible-surface detection methods, advanced illumination and shading models, color models and color applications; advanced animations.

CPSC 7373 Artificial Intelligence

Prerequisites: CPSC 2380; MATH 1305 or MATH 1312. Undergraduate course work in artificial intelligence would be beneficial but is not required. Study of the major areas of artificial intelligence, including general problem solving, search strategies, heuristics, knowledge representation, machine learning, games, scene analysis, expert systems, robotics, natural language processing, and AI languages.

CPSC 7374 Image Processing

Prerequisites: MATH 1305 or MATH 1312 and a working knowledge of C programming. Study of digital image fundamentals; transformation enhancement, restoration, segmentation, compression, encoding, representation, and description of digital images.

CPSC 7375 Machine Learning

Prerequisites: CPSC 2380; MATH 1305 or MATH 1312. Prior course work in artificial intelligence would be beneficial but is not required. In-depth study of machine learning foundation, neural networks, learning paradigms, inductive learning, deductive learning, learning techniques, rough classifiers, fuzzy systems, genetic algorithms, lattices, pattern recognition, and applications.

CPSC 7382 Systems Analysis and Design

Prerequisite: Graduate Standing. Analysis and design of computer information services to meet the needs of industries and businesses; intended as a real-world practicum via field study, and as a community outreach via the provision of expertise and training.

CPSC 7383 Modeling and Simulation

Prerequisites: CPSC 2380; MATH 1305 or MATH 1312; knowledge of statistics and probability. Performance analysis of models of various systems using analytical approaches, discrete and continuous simulation, and hybrid techniques.

CPSC 7385 Analysis of Algorithms

Prerequisites: CPSC 2380; MATH 2310. A study of categories of computer algorithms: greedy, divide-and-conquer, recursive, and probabilistic; performance analysis techniques: order relations, recurrence relations, generating functions, induction, simulation; storage efficiency issues; complexity theory.

CPSC 7386 Compiler Design

Prerequisite: CPSC 2380 and CPSC 3383; MATH 2310. Grammars, languages, and the anatomy of compilers: scanners, parsers, semantic analyzers, type systems, run-time environments, intermediate code generation, code generation, and code optimization.

CPSC 7398 Graduate Project

Prerequisites: Graduate Standing and consent of the student's graduate advisor. Students, under faculty supervision, will conduct directed research on a particular problem or area of computer science in some depth, and will produce an appropriate project and report based on their investigations.

CPSC 7399 Selected Topics

Prerequisites: Graduate Standing, consent of instructor. Various topics in applied computer science, selected from the areas of intelligent systems and computer systems design. Offered on demand.

CPSC 7100 - 7400 Independent Study

Prerequisite: Graduate Standing, instructor permission. Provides an opportunity for doctoral students to learn material relevant to their research that is not offered in a regular course. Students must take this course with an instructor who will guide the study. A copy of work done in the course will be submitted at the end of the semester.

CPSC 8100-8600 Thesis

Prerequisite: Consent of thesis advisor. Scholarly investigation of a selected problem in computer science culminating in a written, orally defended thesis. Maximum of six hours may be applied to MS. Variable credit of one to six hours.

Master of Science in Construction Management

The Master of Science (M.S.) in Construction Management develops upper-level management personnel for the construction industry, while helping students to pass the Certified Professional Constructor (CPC) examination administered by the American Institute of Constructors (AIC).

Admission Requirements

All applicants to the M.S. program in Construction Management must satisfy the requirements of the UALR Graduate School in addition to any requirements specific to the Donaghey College of Engineering and Information Technology. To be considered, an application must contain the following items:

- A bachelor's degree in construction management or construction engineering, civil engineering, architecture, business, or similar areas is required. Students with educational backgrounds different from construction management may need to take prerequisite courses. Applicants must have an overall undergraduate grade point average (GPA) of 3.0 (4.0 scale).
- The Graduate Record Examination (GRE) General Test should be taken within five years of application. The applicant must have a minimum verbal reasoning GRE score in the range of 146-150, a minimum quantitative reasoning GRE score in the range of 150-154, and a minimum score of 3.5 on the analytical writing test. The GRE requirement will be waived if the GPA is 3.5 or higher (4.0 scale).
- Demonstrated proficiency in written English (via the TOEFL exam), for applicants whose native language is not English. Applicants' scores must exceed 525 (paper-based test), 197 (computer-based test), or 71 (internet-based test). Applicants with scores below but close to 525 (197 if computer-based test or 71 internet-based test) may be admitted provisionally upon the recommendation of the Graduate Coordinator to the Dean of Graduate School, and allowed to fulfill the TOEFL requirement as specified in the Graduate School admissions policies.
- Demonstrated proficiency in spoken English (via the Test of Spoken English (TSE) or the American English Oral Communication Proficiency Test (AEOCPT) exams) - for applicants whose native language is not English and who are seeking financial support via a teaching assistantship. The student must get a score of 80% or higher on the AEOCPT or the TSE.
- Three (3) letters of recommendation
- Official college transcripts including grades and curriculum for undergraduate and (if applicable) graduate studies
- Written statement by the applicant regarding the reasons (e.g. interests, relevant experience, and goals) why he or she should be considered for this M.S. program
- A resume detailing any professional work experience, published papers, or presentations

The department graduate faculty will evaluate the compatibility between the applicant's background, research interests, and communication skills vis-a-vis the M.S. program when making admission decisions, and may decline to admit an otherwise qualified application based on a lack of fit with the program.

Students may apply to the M.S. program at any time. Applicants to the M.S. program are ordinarily expected to start in the fall semester of each year. Foreign national graduate students who are candidates for admission must process their visa applications so that they can arrive in the United States and attend orientation at International Student Services (ISS). Those students who are not able to obtain approval for entry into the United States in order to meet this timeline may request an admission deferral to attend the following semester or academic year.

Program Requirements

Program Options

The Master of Science degree in Construction Management offers two options:

1. Thesis Option: 30 credit hours beyond the baccalaureate degree, including six credit hours of thesis work.
2. Non-Thesis Option: 30 credit hours beyond the baccalaureate degree, including a three credit hour project.

For both thesis and non-thesis options, the work must include at least 18 credit hours of 7000-level or above work. A maximum of 12 credit hours (with grades of B or greater) can be 5000-level courses, and a maximum of nine credit hours (with grades of B or greater) of graduate courses can be taken from programs outside the construction management program or from another university.

Program Requirements

Students with backgrounds outside of construction management or construction engineering are required to take the following background courses:

CNMG 1205 Drawings and Specifications

CNMG 2313 Construction Materials

CNMG 2314 Mechanical, Electrical, and Plumbing (MEP) Systems

CNMG 2323 Construction Administration

CNMG 3339 Estimating I

CNMG 4211 Estimating II

CNMG 4329/5329 Construction Planning and Scheduling

CNMG 4342/5342 Construction Safety

Students will develop their own programs of study in cooperation with appropriate faculty and in consideration of the courses and facilities available. The student's plan of study must be developed in conjunction with the student's advisor with approval by the program coordinator.

All master's course work must be completed with a minimum overall graduate GPA of 3.0. If a student receives one "C" or lower grade, the student will be warned that this academic performance is unacceptable and the department graduate faculty will review the student's performance and recommend corrective action.

Transfer of Credit

Course credit may be granted to the student for completing equivalent graduate course work from other institutions based upon the applicability of the courses to thesis work and the student's educational goals. Such credit must be exclusive of thesis or other exit project credits, be no more than nine credit hours, be no more than five years old at the time of transfer, and must have a letter grade of B or greater. Students interested in requesting credit transfer should discuss the request with their advisor and the program coordinator. The dean of the Graduate School must also approve the request before the transfer of credit can be granted.

M.S. Advisor

Each student will choose a faculty member to be his or her mentor through the program. New students will be assigned an advisor by the program coordinator prior to the start of classes. Students may change their advisors until they have completed the first semester. After that, changes in a student's advisor will be granted only in special circumstances.

Thesis Committee

A student choosing the thesis option will be guided by the student's thesis committee, comprising the student's M.S. advisor (serving as committee chair) and two members of the department graduate faculty. Successful completion of the thesis will require an oral defense in which the student will defend his or her findings and conclusions. Policies and procedures for passing, failing, and repeating the thesis defense will be in compliance with the UALR Graduate School policies.

Courses in Construction Management and Civil and Construction Engineering

CNMG 5313 Construction Management Fundamentals

Prerequisite: consent of instructor. This course provides an overview of construction management fundamentals such as delivery systems, estimating, scheduling, and administration. It also covers construction practices such as safety, construction materials and methods, quality, and productivity. Topics include site work, concrete, masonry, steel, rough and finish carpentry, thermal and moisture protection, doors and windows, finishes, electrical and mechanical systems. Three hours lecture. Three credit hours. Students with credit for CNMG 4313 may not take CNMG 5313 for additional credit.

CNMG 5329 Construction Planning and Scheduling

Prerequisite: CNMG 4211 or equivalent. An in-depth study of the process of creating and monitoring a construction project schedule. Creation of project schedules on a variety of scheduling software, with primary focus on Primavera. Three hours lecture. Three credit hours. Dual-listed in the UALR Undergraduate Catalog as CNMG 4329. Students cannot receive graduate credit for CNMG 5329 if they have previously taken CNMG 4329.

CNMG 5334 Construction Contracts and Law

A study of construction contracts in relation to project delivery systems and the basic principles of construction law. Case studies are used to analyze selected areas that affect the construction process. Topics include standard agreements and conditions, negligence, risk, indemnities, modifications, mechanics lien, claims, dispute resolution, conflicts of interest, ethical consideration, and labor law. Three hours lecture. Three credit hours. Dual-listed in the UALR Undergraduate Catalog as CNMG 4334. Students cannot receive graduate credit for CNMG 5334 if they have previously taken CNMG 4334.

CNMG 5342 Construction Safety

A study of the principles of construction safety management and OSHA 29 CFR PART 1926. The OSHA Construction Industry Training Course 500 topics covered in depth. Students develop a company safety plan and hazardous communications program, perform safety analysis, conduct safety meetings, and write accident investigation reports. Students complete the topic requirements for the OSHA 10-hour and 30-hour Construction Safety and Health training card. Two hours lecture and two hours lab. Three credit hours. Dual-listed in the UALR Undergraduate Catalog as CNMG 4342. Students cannot receive graduate credit for CNMG 5342 if they have previously taken CNMG 4342.

CNMG 5361 Green Construction

Overview of design and construction delivery systems for high performance green buildings; relevant criteria and established guidelines; green standards; high performance green buildings and sustainability; vocabulary associated with sustainability and green buildings; physical limitations of materials. Three hours lecture. Three credit hours. Dual-listed in the UALR Undergraduate Catalog as CNMG 4361. Students cannot receive graduate credit for CNMG 5361 if they have previously taken CNMG 4361.

CNMG 5389 Professional Engineering Licensure

Prerequisite concurrent: Registration for the Fundamentals of Engineering exam, or consent of instructor. Legal, regulatory, and ethical issues related to the practice of engineering; preparation for engineering licensure examinations. Two hours lecture. Three hours lab. Three credit hours. Cross listed as SYEN 5389. Dual-listed in the UALR Undergraduate Catalog as CNMG 4389. Students cannot receive graduate credit for CNMG 5389 if they have previously taken CNMG 4389.

CNMG 5399 Special Topics

Designed to meet special needs of students or industry to cover the application of construction management specific problems. Three credit hours.

CNMG 7100, 7200, 7300 Independent Study

Topic and method of procedure must have approval of the supervising faculty member. Typically four to six hours per week of work on the project for each hour of credit earned. The exact hourly commitment per week and credit hour value depends on the nature of the project and must be agreed on in advance by the student and instructor, and must be submitted in writing to the student's graduate advisor. With approval, may be repeated for up to nine credit hours. One to three credit hours.

CNMG 7318 BIM and 4D Simulation

Prerequisite: CNMG 4218 or equivalent. Advanced techniques of using Building Information Modeling (BIM) together with scheduling control to do 4D simulation. Potential applications of computer and information systems in construction industry. Three hours lecture. Three credit hours.

CNMG 7345 Applied Construction Management

Prerequisites: CNMG 4211 and CNMG 5329 or equivalent, or consent of the instructor. This course discusses design, development, estimating, scheduling, contracting, and administering small construction projects, including extensive site and feasibility analyses. Three hours lecture. Three credit hours.

CNMG 7376 International Construction Business Management

Construction contracting, with emphasis on international economics, marketing, contracts, design, and specifications. Issues of local construction techniques, construction marketing, international construction, sustainability, global economics, and influence on construction of local culture, traditions, architecture, history, and political climate. Three hours lecture. Three credit hours.

CNMG 7385 Construction Management Graduate Project

Prerequisites: graduate standing, completion of at least 18 graduate credit hours in the M.S. in Construction Management program, or consent of the advisor. Students, under faculty supervision, will work on practical problems related to construction management, and will submit a project report documenting the results. Three credit hours.

CNMG 7399 Special Topics

Prerequisites: Consent of instructor. Selected advanced topics in construction. Three hours lecture. Three credit hours.

CNMG 8100, 8200, 8300, 8400, 8500, 8600 Construction Management Master's Thesis

Prerequisites: graduate standing, completion of at least 18 graduate credit hours in the M.S. in Construction Management program, or consent of the thesis advisor. Scholarly investigation of a selected problem in an area related to construction management culminating in a written thesis and an oral defense. A maximum of six hours may be applied toward the M.S. degree. Variable credit of one to six hours.

Doctor of Philosophy

The Engineering Science and Systems Doctoral Program leading to the Ph.D. degree is housed in the Donaghey College of Engineering and Information Technology. Faculty, curriculum, and resources for this program are contributed by five departments: Systems Engineering, Computer Science, Information Science, Engineering Technology, and Construction Management. The program is designed to provide a collaborative, interdisciplinary framework of graduate studies and research in engineering with exposure to the systems approach that is increasingly the hallmark of current research and development in the global engineering community. Students enrolled in the Engineering Science and Systems Ph.D. program can select one of the four following tracks:

Systems Engineering

The Systems Engineering track focuses on design and analysis of systems and their architecture, integration of systems, decision and risk analysis, simulation and optimization of systems that are part of the technical infrastructure that supports an organization's application and information needs.

Electrical and Computer Engineering

The Electrical and Computer Engineering track focuses on embedded systems, robotics, measurement techniques, design of analog and digital electronics and circuits, power systems, digital systems, coding, software systems and operating systems.

Telecommunications and Networking Engineering

The Telecommunications and Networking Engineering track focuses on communications and mobile networking and protocols, advanced digital communications, digital signal processing, and antennas and wireless systems.

Mechanical and Materials Engineering

The Mechanical and Materials Engineering track focuses on advanced solid and fluid mechanics, MEMS and microsystems, vibration analysis, applied numerical and finite element methods, and smart materials.

Admission Requirements

In addition to the UALR Graduate School admission requirements, the applicants for the Ph.D. program in Engineering Science and Systems must also meet the following criteria:

Education: Applicants must have a bachelor's degree in engineering, technology, science, or related discipline. The applicants with only a bachelor's degree must have an overall undergraduate GPA of 3.0 or 3.3 on the last 60 credit hours. Alternatively, applicants with a master's degree in engineering should have a master's GPA of 3.3 or better.

Standardized test scores: Applicants are required to take the GRE test. Applicants must have the following minimum scores on the GRE test: a score of 146 on the Verbal Reasoning section and a score of 155 on the Quantitative Reasoning section. Applicants should also have a score of 4.5 in the Analytical Writing section. English language requirement: International students must satisfy the Graduate School TOEFL or IELTS tests requirements.

Statement of purpose: Applicants are required to submit a personal statement that should include their background and qualifications for doctoral studies, and emphasize their educational and research interests they intend to pursue at UALR.

Letters of recommendation: Applicants should make the arrangements for having three letters of recommendation submitted to UALR, on their behalf, by individuals familiar with their academic background and educational interests.

The Engineering Science and Systems Governance Committee will assign a track at the time of admission to each Ph.D. student after considering the student's past academic credentials, as well as student's request for a track. Applicants who do not meet all the admission requirements may be recommended for conditional admission by the Engineering Science and Systems Governance Committee. The conditionally admitted students must fulfill the requirements specified by the UALR Graduate School and the Engineering Science and Systems Governance Committee.

Graduate Assistantships

A limited number of graduate assistantships that support teaching and research opportunities are available to qualified full time students. Tuition is paid for nine credits per semester, and a stipend is provided for living expenses. Students must pay registration fees, buy textbooks, and purchase any necessary support materials. For more information about graduate assistantships, the online application process, and other financial assistance opportunities, visit the Engineering Science and Systems doctoral program website at ualr.edu/enss. A student supported by a graduate assistantship must be a registered full time student taking at least nine credit hours during the Fall and Spring semesters.

Transfer of Credit

Transferability of credit is determined by the Engineering Science and Systems Governance Committee based upon the applicability of the courses selected for student's dissertation work and educational goals.

Program Requirements

The program consists of a total of 76 credit hours, which include 17 credit hours of program core courses, 9 credit hours of track core courses, 12 credit hours of elective courses, and 38 credit hours of dissertation research. In addition, the student is required to:

- Maintain acceptable academic performance. If a student receives one C grade in his/her course work, he/she will be warned that his/her performance is unacceptable and that his/her status will be reviewed by the Engineering Science and Systems Governance Committee, which will suggest corrective actions. A student receiving two C grades or either a D grade or an F grade in his/her course work will be dismissed from the program, pending review by the Engineering Science and Systems Governance Committee;
- Pass candidacy examinations;
- Pass proposal defense;
- Publish and present at least one paper in a peer-reviewed national/international conference;
- Have at least one paper accepted for publication in an international reputed journal with the student as the first author; and
- Pass dissertation defense.

Engineering Science and Systems Curriculum

The student's plan of study must be developed in conjunction with his/her Doctoral Dissertation Committee and filed with the appropriate Track Coordinator, as well as, the Engineering Science and Systems Graduate Coordinator.

Program Core: The program core provides students an introduction to the systems approach to engineering, as well as the mathematical and research methodologies and tools needed to successfully complete the Ph.D. studies. The 17 credit hours of program core courses are listed below:

Engineering systems component - 3 credit hours: SYEN 7311 Systems Design and Analysis.

Engineering seminar component - 4 credit hours (1 credit hour per semester for 4 semesters): SYEN 7192 Graduate Seminar.

Engineering ethics component - 1 credit hour: SYEN 7118 Research Ethics in Science and Engineering.

Engineering research methodology component – 3 credit hours: CPSC/IFSC/SYEN 7101, 7102, 7103 Research Methods.

Engineering mathematical foundations component - 6 credit hours, as advised by the Doctoral Dissertation Committee.

Program Track Courses

The track courses consist of both core and elective courses, as follows:

Track core courses: 9 credit hours.

Elective courses: 12 credit hours.

A list of the core courses for each of the four program tracks and examples of elective courses are presented below. Students must choose three of the four listed core courses under their chosen track, and four elective courses, usually from the ones listed under their chosen track. Student may, with their advisors' permission, choose elective courses from other tracks as necessary to further their research.

Systems Engineering Track

Core courses:

SYEN 7312 System Architecture and Design
SYEN 7313 System Management and Evaluation
SYEN 7314 Multicriteria Decision and Risk Analysis
SYEN 7316 Advanced Systems Simulation
Elective courses examples:
SYEN 7342 Networks and Combinatorial Optimization
SYEN 7315 Complex Engineered Systems
CPSC 7373 Artificial Intelligence
CPSC 7383 Modeling and Simulation
IFSC 7310 Information Systems Analysis
INFQ 7318 Total Quality Management and Statistical Quality Control

Electrical and Computer Engineering Track

Core courses:

SYEN 7302 Advanced Electronics for Instrumentation
SYEN 5332 Applied Operating Systems / CPSC 7321 Operating Systems
SYEN 5354 Power Systems Analysis
SYEN 5366 Advanced Digital Systems
Elective courses examples:
SYEN 7306 Real-Time Embedded Systems
SYEN 7331 Transducers and Real-Time Control
SYEN 7332 Advanced Operating System Design
CPSC 7321 Operating Systems
CPSC 7331 Computer Architecture
CPSC 7374 Image Processing

Telecommunications and Networking Engineering Track

Core courses:

SYEN 5310 Introduction to Signal Processing
SYEN 5353 Advanced Digital Communications
SYEN 5356 Radio Frequency Techniques and Systems
SYEN 5355 Mobile Multimedia Internet / CPSC 7341 Telecommunications and Networking
Elective courses examples:
SYEN 7357 Advanced Antennas for Wireless Systems
CPSC 7341 Telecommunications and Networking
CPSC 7343 Sensor Networks
CPSC 7374 Image Processing
IFSC 7321 Information Science: Principles and Theory

Mechanical and Materials Engineering Track

Core courses:

SYEN 5371 Introductory Continuum Mechanics
SYEN 5375 Mechanical Vibrations / SYEN 5384 Computer Methods in Fluids and Heat Transfer
SYEN 5383 Finite Element Analysis

Elective courses examples:

SYEN 7307 Smart Materials

SYEN 7374 Elasticity

SYEN 7376 Fracture Mechanics

Dissertation Research Courses:

Students are required to complete at least 38 credit hours of doctoral dissertation research courses during their doctoral studies, using one of the below designations:

CPSC/IFSC/SYEN 9100-9900 Doctoral Research Dissertation

Candidacy Exams

The program is designed so that the student is exposed to a breadth of knowledge through the program core and a depth of knowledge through the track core. The candidacy exam will have a written and an oral component. The written component will test the student on the fundamental knowledge at the advanced undergraduate level, whereas the oral component will test the student's ability to conduct research in his/her area of interest. The following candidacy exam structure is followed:

The student can take the candidacy exam no sooner than the second semester he/she is in the program and no later than the third semester he/she is in the program.

The student will have to officially declare his/her intention to take the candidacy exam by the end of the semester prior to the semester in which he/she will take the exams for the first time.

The student will have to attempt both components in the same semester, and will need to pass each of the components separately. If the student fails to pass one or more components in the first attempt, he/she will have to retake those components in the next semester. Failure to pass the exam in two attempts will result in dismissal from the program, pending review of the Engineering Science and Systems Governance Committee. This review will be completed and a decision conveyed to the student by the end of the academic year when he/she has taken the exam.

A sample written exam for each track and a sample research topic for the oral exam will be on file with the Graduate Coordinator. The students will have access to the sample exam for the purposes of familiarizing themselves with the written component of the candidacy exam.

Decisions of the Track Candidacy Exam Committee will be supported by a minimum of 2/3 majority of the committee members present and will be any one of the following:

- i. Pass
- ii. Pass with remedial course work
- iii. Fail; in this case, the student will retake the oral component in the next semester on the same research topic; a new report will have to be submitted by the student prior to retaking the oral exam.

Written Component

- The written exam for each track will be one 4-hour exam, and there will be only one exam for each track.
- The syllabus of the written exam will be identical for the Fall and Spring semester exams in a given academic year, and will be published at the beginning of the Spring semester of the prior academic year. The study materials for each track will also be recommended.
- The student will have passed the exam if her/his overall grade in the written exam is 70% or higher.

Oral Component

The oral exam for each student taking the exam will be of 1-hour duration.

Student will be given a research topic on which to submit a written report. This report shall be submitted no later than one month from the date the student was assigned the topic.

The student will be provided with a template. The same template will be used for all the tracks. The submitted report will have to adhere to the guidelines of the template.

Using the written report as the basis, the student will be orally tested by the Track Candidacy Exam Committee. The oral exam will be scheduled no earlier than two weeks after the student has submitted the report.

Proposal Defense

At least two years prior to the dissertation defense, candidates must present their research proposal to their Doctoral Dissertation Committee. At the completion of the examination, the Doctoral Dissertation Committee will vote to either pass or fail the student. Students who fail the proposal defense will have to repeat the defense within a semester of their first attempt. If the student fails the proposal defense for a second time, he/she will be dismissed from the program, pending review of the Engineering Science and Systems Governance Committee.

Dissertation Defense

In order to complete the requirements for the doctoral degree, students will prepare and successfully defend a written dissertation in accordance with the format and procedures dictated by the Graduate School. Students must orally defend their completed doctoral research to their Doctoral Dissertation Committee. At the completion of the examination, the Doctoral Dissertation Committee will vote to either pass or fail the student. If two or more negative votes are cast by the committee members, the student is considered to have failed the exam and will be dismissed from the program, pending review of the Engineering Science and Systems Governance Committee.

Doctoral Dissertation Advisor

A student admitted to the doctoral program can declare an advisor, with advisor's approval, no earlier than the second semester that he/she is in the program. The student is required to meet with faculty eligible to mentor him/her as dissertation advisor before the student can declare the dissertation advisor. As part of the process, the student will have to interact/work with at least three faculty members.

Doctoral Dissertation Committee

The Doctoral Dissertation Committee can be constituted once the student has declared his/her Doctoral Dissertation Advisor, and no later than the second semester that the student has been in the program. The committee will include a minimum of five members and a maximum of seven members. At least four members have to be Engineering Science and Systems program faculty. The committee can have one or more external members who are not Engineering Science and Systems program faculty. If the dissertation advisor and the doctoral student are affiliated with different tracks, it is required that at least one Engineering Science and Systems program faculty in the committee belong to the student's track.

Courses in the Engineering Science and Systems Doctoral Program

The catalog description of the program core, track core and elective courses, and the dissertation research courses that are part of the Engineering Science and Systems Doctoral Program, is provided in the "Systems Engineering," "Computer Science," "Information Science," and "Information Quality" sections of this catalog. Other courses may be approved in consultation between the student and his/her Doctoral Dissertation Committee.

Up to twelve credit hours may be granted to the student for completing equivalent graduate course work at other institutions. Such credit must be exclusive of thesis or other exit project credits, be no more than five years old at the time of transfer, and must have a letter grade of B or better. In some cases students may be required to balance their transfer credit with a corresponding increase in research hours. Students interested in requesting a credit transfer should discuss the request with their Doctoral Dissertation Advisor and appropriate Track Coordinator. The request must also be approved by the Engineering Science and Systems Graduate Coordinator and the Dean of the Graduate School before the transfer of credit can be granted.

ETAS, Room 575

(501) 569-8009

Graduate Certificate in Geospatial Technology

Geospatial Technology (GT) is an expanding and evolving field that requires a background in the concepts and skills of geographic information systems (GIS), global positioning systems (GPS) and remote sensing (RS). There is a growing demand for programs to provide training in GT in many fields, including geology, geography, biology, environmental science, agriculture, urban planning, business, engineering, and criminal justice (forensic science). Certificate programs accomplish the goals of providing training and certification for technicians and working professionals to meet the needs of the workforce and professional development in the geospatial disciplines. This certificate focuses on the fundamental concepts, applications, and technology of GIS, GPS, and RS.

GT is one of the fastest growing information science disciplines. Although geographical by nature, the growth of GIS can be partially attributed to its application by a wide variety of businesses and governmental agencies. As such, the use of GIS is becoming more ubiquitous in careers falling outside the traditional definition of geoscience. Employment skills in fields such as criminology, marketing, engineering, and agriculture as well as more traditional geospatial fields such as land use planning, site location, geology, and environmental monitoring rely heavily on GIS in day-to-day work. The certificate program offered by the Department of Earth Science is designed to provide the GIS skills necessary for both geologists and professionals working outside the traditional bounds of a geology degree. By completing the GIS certificate program, students will be prepared to enter a highly technical and growing career field.

Upon completion of the certificate requirements, students will be able to:

- Perform database entry, manipulation, and query;
- Perform basic to advanced geospatial analysis functions such as overlay, buffer, proximity analysis, and network analysis;
- Produce hardcopy spatial graphics on a variety of output devices;
- Input spatial data via tablet and on-screen digitizing and scanning;
- Collect primary data via GPS;
- Demonstrate competence in working with standard geospatial data (i.e., geo databases, digital elevation models, digital line graphs, orthophotography, and satellite imagery); and
- Formulate and complete a comprehensive, directed project related to a geospatial problem.

Admission Requirements

- A baccalaureate degree from an accredited institution
- A cumulative GPA of at least 2.75

Program Requirements

Program requirements for the Geospatial Technology Certificate program are 18 hours, including the following courses:

Core Courses (4 hours):

ERSC 5421 Introduction to GIS

Elective Courses (8 hours):

Students must take 8 hours at the 5000-level or above. Courses must be related to geospatial technology or directly support geospatial projects. The director of the program must approve elective courses for credit toward the GT certificate. Examples of elective courses include:

ERSC 5422 Applied GIS
ERSC 5426 Introduction to Remote Sensing
ERSC 5321 Geomorphology
ERSC 5322 Environmental Geology
ERSC 5371 Engineering Geology
URST/POLS 5355 Urban Planning and Land Use
ENHS 5430 Environmental Epidemiology

Capstone Courses (2 hours)

IGSC 7195/7295/7395* Internship in Integrated Science and Mathematics

IGSC 7391* Cooperative Education in Integrated Science and Mathematics

IGSC 7192/7292/7392* Independent Study

* Capstone course credits above 2 hours count toward elective credit hours.

Courses in Earth Science

ERSC 5100, 5200, 5300 Independent Problems

Prerequisite: consent of the instructor. This course offers the student an independent laboratory or field study of a problem in the earth sciences in consultation with an instructor. Credit varies per problem topic.

ERSC 5199, 5299, 5399, 5499 Special Topics

Prerequisite: consent of the instructor. This course offers study in advanced and specialized topics in the geological sciences especially those of current interest. Refer to the semester's schedule for the special topics offered. Credit will vary depending upon the course topic.

ERSC 5322 Environmental Geology

Prerequisite: ERSC 1302/1102 and MATH 1302 or consent of instructor. Humans as a geologic agents, geologic hazards in the environment, geology and land use studies, urban geology, and case histories. Dual-listed as ERSC 4322. Three hours lecture per week. Three credit hours.

ERSC 5323 Geology of Arkansas

Prerequisites: ERSC 1302/1102 or 1303/1103 or consent of instructor. Regional geomorphology, structure, stratigraphy, and paleontology of Arkansas. Includes field trips to Ozark dome, Ouachita fold belt, Arkansas Valley, and Mississippi Embayment/Gulf Coastal Plain. Dual-listed as ERSC 4323. Three hours lecture per week, field trips. Three credit hours.

ERSC 5371 Engineering Geology

The study of the interaction of rock, soil, and geologic processes with the engineering activities of man by applying geological data, techniques and principles. The integration of geological, geotechnical and geophysical investigative methods will be emphasized. Lecture topics will include soil and rock mechanics and rock deformation, the assessment of the spatial-temporal variability of sub surface material, slope stability analysis and slope failure mitigation, earthquake engineering, hydrologic systems management, and the application of GIS and geology. Two hours lecture, two hours laboratory per week. Three credit hours.

ERSC 5373 Hydrogeology

Prerequisites: MATH 1302 or 1311; ERSC 3310; Co-requisite CHEM 1402 Ground water occurrence, flow, porosity, permeability, aquifer analysis, geology of ground water, water well logging, well development, case histories, field methods, hydrogeologic planning. Three hours lecture per week. Offered in spring on even years.

ERSC 5391 Cooperative Education in Earth Science

Prerequisites: Consent and approval of assignment by advisor. Supervised professional experience related to students discipline with governmental agencies, industry and consulting firms. This course requires a minimum of 200 semester work hours. Dual listed as ERSC 4391. Three credit hours.

ERSC 5419 Geomorphology

Prerequisites: ERSC 1302, ERSC 1102, ERSC 3320, or consent of instructor. The study of form and process at the Earth's surface. The interactions between erosional and depositional processes at the Earth's surface with tectonic processes operating within the Earth are examined with respect to landform evolution. Laboratory includes the analysis of maps, digital imagery, and field applications of GPS/GIS technology. Dual-listed as ERSC 4419. Three hours lecture, two hours laboratory or field study per week. Four credit hours.

ERSC 5421 Introduction to Geographic Information Systems

Prerequisites: consent of instructor. This course introduces Geographic Information Systems (GIS) and the use of spatial data for problem-solving in science. The lecture portion of the course focuses on the data models used to represent spatial features and on the processes involved in creating, acquiring, analyzing, and displaying georeferenced information. The laboratory portion of this course employs a project-based methodology including applications from geology, biology, environmental science, and political science to foster basic GIS software proficiency. Three hours lecture, two hours laboratory or field study per week. Four credit hours.

ERSC 5422 Applied GIS

Prerequisites: BIOL/ERSC 4421/5421 or consent of instructor. This course builds on the fundamental concepts of Geographic Information Systems (GIS) from Introduction to GIS. It focuses on advanced applications in GIS with an emphasis on problem-solving, advanced analysis techniques, and database management. Dual listed as ERSC 4422. Three hours lecture, two hours laboratory per week. Four credit hours.

ERSC 5426 Introduction to Remote Sensing

Prerequisites: ERSC/BIOL 4421/5421 or consent of instructor. This course introduces the fundamentals of manipulating and interpreting the electromagnetic spectrum. The lecture portion of the class covers concepts of remote sensing, including how data is collected, processed, analyzed, and interpreted. The lab portion of the class is focused on building proficiency in several images processing software programs and the use of spatial data for problem-solving in science. Dual listed as ERSC 4426. Three hours lecture, two hours laboratory or field study per week. Four credit hours.

ERSC 5473 Hydrogeology

Prerequisites: ERSC 1302/1102 or ERSC 1303/1103 and MATH 1302 or higher. Ground water occurrence, flow, porosity, permeability, aquifer analysis, geology of ground water, water well logging, water chemistry, water quality, well development, case histories, field methods, hydrogeologic planning. Dual-listed as ERSC 4473. Three hours lecture and two hours lab per week. Four credit hours.

ERSC 7399 Selected Topics

Prerequisites: four undergraduate geology hours, professional experience in some area of earth science, consent of instructor. Topics include modern geology, meteorology, oceanography; assists professionals to remain current in these rapidly expanding fields; laboratory emphasis on creative problem solving, field trips. Two hours lecture, three hours laboratory per week. Offered in summer.

Master of Science in Information Quality

The Master of Science in Information Quality degree is offered through the Department of Information Science and is designed to prepare students for careers in industry and government as well as advanced graduate studies. The curriculum is designed to balance information quality theory with industry best practices using state-of-the-art tools and technology. The curriculum is based on the Model Curriculum and Guidelines for Graduate Degree Programs in Information Systems endorsed by the Association for Computing Machinery (ACM) and Association for Information Systems (AIS). The course content has been developed with the support of the Massachusetts Institute of Technology Information Quality Program, based at the MIT Center for Technology, Policy, and Industrial Development, and with additional help from leading practitioners and researchers within the information quality community. The program is accessible to both day and evening students and both full-time and part-time students. In addition, a distance education option allows students to participate in the program via live webcasting. For more information, please visit the program's website at ualr.edu/informationquality and the LinkedIn Group "UALR Information Quality Graduate Program."

Admission Requirements

- Baccalaureate degree in information science, computer science, computer information systems, management, or a related discipline from an accredited institution.
- Cumulative grade point average of at least 3.0 on a 4.0 scale.
- Graduate Record Examination (GRE) general test section or Graduate Management Admission Test (GMAT) scores. For regular admission, applicants should have a minimum GRE Verbal Reasoning score of 142, a minimum GRE Quantitative Reasoning Score of 142, (minimum Total Score of 297), and the GRE Analytical Writing Score of at least 3.0 or a GMAT Score of at least 420. The GRE/GMAT requirement is waived for applicants who have completed the UALR Graduate Certificate Program with a GPA of 3.5 or higher.
- Statement of Interest
- Résumé
- Completion of any remedial course work that may be specified by the department; in particular, all students seeking regular admission to the program are expected to have completed (with a grade of B or better in each course) undergraduate course work equivalent to the following UALR undergraduate courses:
 - IFSC 2300 Object-oriented Software
 - IFSC 3320 Database Concepts
 - STAT 2350 Introduction to Statistical Methods
 - Waiver of any or all of these prerequisite courses is at the discretion of the Information Quality Graduate Committee.

Program Requirements

There are two curriculum options within the Master of Science in Information quality degree program, a Thesis Option and a Project Option.

Thesis Option: Thirty-three (33) credit hours, consisting of 27 hours of course work plus a minimum of 6 credit hours of INFQ 7198, 7298, 7398, 7498, 7598, or 7698, Thesis. Total thesis credits exceeding the minimum will not be count towards minimum course requirements.

Project Option: Thirty-three (33) credit hours, consisting 27 hours of course work plus of one of the following sub-options:

INFQ 7686 Graduate Project

INFQ 7386 Graduate Project (repeated over two semesters)

Minimum of three credits of INFQ 7191, 7291, or 7391 Cooperative Education in Information Quality followed by INFQ 7386 Graduate Project.

To be eligible to enroll in thesis, project, or cooperative education courses, a student must first meet the following requirements:

- Have completed at least 9 hours of required or elective program course work.
- Be in good standing in the program.
- In the case of the Thesis Option, successfully defend a thesis proposal to his or her thesis committee.
- In the case of the Project option, has secured a faculty advisor, an external project sponsor, and has a project plan approved by the MSIQ program committee.

In addition to the above requirements, a student approved to enroll in thesis hours must continue to enroll in at least 3 hours of thesis hours each semester (fall, spring, and summer I) until he or she has successfully defended his or her thesis. Similarly, a student approved to enroll in project hours must continue to enroll in at least 3 hours of project hours each semester (fall, spring, and summer I) until he or she has successfully defended his or her project. Exceptions to this policy will be granted only in cases of significant hardship. Exceptions must be requested in writing and approved by the student's thesis or project advisor and the graduate coordinator.

Core Requirements

All students must take the following seven courses (21 credit hours):

Information Quality Courses

INFQ 7303 Principles of Information Quality

INFQ 7322 Information Quality Theory

INFQ 7342 Information Quality Tools and Industry Landscape

INFQ 7367 Information Quality Policy and Strategy

Information Science Courses

IFSC 5345 Information Visualization

IFSC 7310 Information Systems Analysis

IFSC 7320 Database Systems

Electives

One graduate course with an INFQ prefix such as:

INFQ 7318 TQM and Statistical Quality Control

INFQ 7337 Project and Change Management

INFQ 7348 Entity Resolution and Information Quality

INFQ 7353 Case Studies for Information Quality Professionals

INFQ

One Course from the following list without the INFQ prefix such as:

IFSC 5325 Data Mining Concepts and Techniques

IFSC 5330 Database Security

IFSC 5339 Network Security

IFSC 5399 Special Topics (Title will vary)

IFSC 7321 Information Science and Theory

IFSC 7325 Advanced Data Mining

IFSC 7330 Information Systems Security

IFSC 7331 Network Science
IFSC 7350 Electronic Commerce
IFSC 7360 Data Protection and Privacy
IFSC 7399 Special Topics (Title will vary)
MGMT 7308 Advanced Business Communication
MGMT 7312 Team Development
Other with approval of Graduate Coordinator

Graduate Certificate in Information Quality

The Graduate Certificate in Information Quality program consists of 12 graduate credits, which may be completed in the evenings or online. This certificate will provide individuals with a focused collection of course work in the information quality area. The program is designed for post-baccalaureate students and working professionals who are interested in moving into information quality leadership roles within their organizations or in preparation for entering master's programs. The program is accessible to both day and evening students and both full-time and part-time students. In addition, a distance education option allows students to participate in the program via live webcasting.

Admission Requirements

- A bachelor's degree from an accredited institution with an overall GPA of at least 3.0 (4.0 scale). Candidates who have a background in computer programming, database concepts, and applied statistics or who have professional experience in any information quality role will be the most prepared to enter and successfully complete the certificate program.
- Completion of any remedial course work that may be specified by the department for the certificate program. Students seeking regular admission to the certificate program are expected to have completed (with a grade of B or better in each course) course work or to have professional experience equivalent to the following UALR courses:
 - IFSC 2300 Object-oriented Technology
 - IFSC 3320 Database Concepts
 - STAT 2350 Introduction to Statistical Methods
 - The GMAT or GRE exams are not required.

Program Requirements

The Graduate Certificate in Information Quality consists of 12 hours of course work as follows:

Required Core Courses (9 hours)

INFQ 7303 Principles of Information Quality
INFQ 7342 Information Quality Tools & Industry Landscape
INFQ 7367 Information Quality Policy and Strategy
Elective Courses (3-hours-Select one course)
INFQ 7318 Total Quality Management & Statistical Quality Control
INFQ 7322 Information Quality Theory
INFQ 7337 Project and Change Management
INFQ 7353 Case Studies for Information Quality Professionals

Additional Requirements

- Graduates of the certificate program with a 3.5 GPA can apply to the MSIQ program without a GMAT or GRE requirement, but students are advised that all other admission criteria to the MSIQ program apply, including deficiency work.
- Concurrent enrollment in the IQ Graduate Certificate and the MSIQ program is permitted (i.e., MSIQ students are eligible to receive certificates upon completion of the appropriate subsection of the MSIQ curriculum).
- Students in the IQ Graduate Certificate program must apply to the UALR Graduate School at www.ualrgrad.org/application/. The Certificate program code is INFQ-GC.

For more information about the Graduate Certificate in Information Quality, contact the program coordinator.

Substitution of Core Requirements

The Information Quality Graduate Committee may substitute other graduate-level courses in Information Quality or Information Science for up to six hours of the core requirements if in the Committee's opinion, an entering student has already completed the same level of work prescribed for that core course or courses through previous academic work or professional experience. Overall course substitution for previous work is limited to a total of 12 hours.

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the program coordinator for more information.

Distance Education Option

The program offers a distance education option that permits students to participate in classes via a broad-band Internet connection. Students attending class online will be able to see the course materials presented in the on-campus classroom and participate in discussions with the other students on-campus and online. Classes are recorded so that students can replay previous class meetings. The transcript of students completing the program through the distance education option will appear the same as those completing the program on-campus.

Many students in the program may take advantage of the webcasting of classes; the distance education option is primarily for remote students, i.e., students who, because of distance or other circumstances, cannot attend on-campus classes on a regular basis. However, F-1 and J-1 international students must fulfill the physical presence requirement of their visa type as defined by the Course Load requirements for international students previously addressed within the Graduate Catalog.

Notwithstanding, all major examinations must be taken in person. Examinations for local students are administered in the campus classroom by the instructor. Examinations for remote students must be administered by an approved proctor. Because all students must present their final theses or project reports in person to the Information Quality Graduate Committee as a requirement for graduation from the program, remote students must be prepared to make at least one visit to the UALR campus in order to complete their degree requirements.

Graduation Requirements

- Cumulative GPA of at least 3.0 in the approved program of study as outlined above
- Successful completion of one of the program options

Courses in Information Quality

INFQ 7191, 7291, 7391 Cooperative Education in Information Quality

Prerequisite: Graduate standing and approval of assignment by the faculty sponsor and the graduate coordinator. Complements and extends the classroom experience by allowing the student to apply the concepts of information quality improvement in the work place. The exact number of hours per week, activities, and responsibilities of the work are dependent on the nature of the work experience and must be specified in written agreements coordinated with the UALR Office of Cooperative Education between the student, the sponsoring faculty member, and the employer. At a minimum, a written report and 12 hours per week for a 3 credit hour semester course, 8 hours per week for a 2 credit hour semester course, and 4 hours per week for a 1 credit hour semester course with the participating employer are required. The course may be repeated for credit. The course cannot be used for credit toward the requirements for the Masters in Information Quality degree without the special approval from the MSIQ Graduate Coordinator.

INFQ 7300 Independent Study

Prerequisite: graduate standing and consent of the instructor. Independent study in Information Quality is given under the direction of a faculty member. The different topics for independent study can be, but not limited to: Research and Reading, Information Quality Software Development, Research Project on Information Quality, etc. as long as the topic is not offered in regularly scheduled course offerings. Upon the completion of the course, the student is typically required to submit a written report with content and quality comparable that required for a conference or journal such as the International Conference in Information Quality or the ACM Journal of Data and Information Quality. Written proposal and final product required. No more than three hours may count toward concentration requirements. Additional hours may fulfill cognate requirements. May be repeated once for degree credit.

INFQ 7303 Principles of Information Quality

Prerequisites: IFSC 2300 or equivalent. This course provides a rigorous exploration of information quality concepts, assessment, and problems in organizational information systems, databases and data warehouses. A combination of state of the art literature review and hands-on projects is used to develop knowledge and ability to meet objectives. Three hours lecture. Three credit hours.

INFQ 7318 Total Quality Management and Statistical Quality Control

Prerequisites: STAT 2350 or equivalent. This course provides an understanding of how the concepts and techniques of Total Quality Management may be applied to information products. Topics include continuous improvement strategies, statistical process control, experimental design, capability analysis, quality cost assessments, benchmarking, acceptance testing, and auditing. Three hours lecture. Three credit hours.

INFQ 7322 Information Quality Theory

Prerequisite: INFQ 7303. This course is designed to provide students with the theoretical foundations critical for developing a deep understanding of the state-of-the-art information quality research from the technical, organizational and strategic perspectives. This course will prepare students to work on their thesis, project and conduct research in the field of information quality. More specifically, students will be exposed to concepts, principles, tools and models and techniques that are essential for information quality definitions, measurement, analysis and improvements. Additionally, students will be exposed to most current, cutting-edge research that goes beyond current industry practice in information quality. Three hours lecture. Three credit hours.

INFQ 7337 Project and Change Management

Prerequisites: INFQ 7303. A course on how to manage information quality improvement projects within an organizational context, including the processes related to initiating, planning, executing, controlling, reporting, and closing a project. Additional topics include identifying project champions, working with user teams, training, documentation, project integration, scope, time, cost-benefit studies, risk analysis, and change management. Three hours lecture. Three credit hours

INFQ 7342 Information Quality Tools and Industry Landscape

This course is designed to develop and increase capability and skills that students need to critically understand what IQ software tools, techniques and prototypes are currently used in industry, government and research laboratories. The course will prepare students to make software tool recommendations on corporate data quality programs. Students will conduct a survey of academic literature and industry practices in terms of IQ tools such as data cleansing, profiling, and auditing and will participate in a hands-on workshop on commercial IQ tools from participating vendors in the field. Two hours lecture and three hours lab per week. Three credit hours.

INFQ 7348 Entity Resolution and IQ

Prerequisite: INFQ 7342 or consent of instructor. An examination of the theory and practice of entity resolution (ER), and the relationship between ER and information quality. Topics include the primary activities of ER, the major ER system architectures, methods and techniques for determining reference equivalence, major theoretical models for ER, entity-based data integration, ER case studies, and hand-on ER exercises with commercial and open-source ER tools.

INFQ 7353 Case Studies for Information Quality Professionals

Prerequisites: INFQ 7322 and INFQ 7342. This intensive and interactive course is designed to develop and increase the student's capability and skills to critically understand what constitutes data quality, how to analyze and solve data quality problems, and how to institutionalize data quality projects in an organization where data quality is not the most critical priority. Three hours lecture. Three credit hours

INFQ 7367 Information Quality Policy and Strategy

Prerequisite: INFQ 7322. This course explores the top management, strategic perspective for aligning competitive strategy, core competencies, and information quality. Topics include the development and implementation of IQ policies and plans to achieve organizational goals; how to define systems that support the operational, administrative, and strategic IQ needs of the organization, its business units, and individual employees; approaches to managing technology and the information systems function in organizations, role of the CIO. Three hours lecture. Three credit hours.

INFQ 7386, 7686 Graduate Project

Prerequisites: Graduate standing and consent of the student's graduate advisor. Students, under faculty supervision, will conduct directed research on a particular problem or area of information quality and will produce reports and other deliverables appropriate to the project. 7386 may be repeated over two semesters.

INFQ 7399 Special Topics

Prerequisite: graduate standing and consent of instructor. The course explores on an experimental or temporary basis advanced topics in information quality not included in the established curriculum. Content, subtitle, organization change each time offered, based on interest.

INFQ 7198-7698 Thesis

Prerequisite: Consent of thesis advisor. Student's should have completed at least 15 hours of the program core, or have had substantial professional experience in information quality management.

Courses in Information Science

IFSC 5199, 5299, 5399 Special Topics

Advanced, specialized topics of current interest in information science. May be repeated for no more than 12 hours of credit. One, two, three or four credit hours.

IFSC 5325 Data Mining Concepts and Techniques

Prerequisites: IFSC 4325: IFSC 3330 or equivalent or consent of instructor and Graduate status for IFSC 5325. This course provides in-depth, practical coverage of essential data mining topics, including OLAP and data warehousing, data preprocessing, concept descriptions, association rules, classification and predication, and cluster analysis. It addresses advanced topics such as mining object-relational databases, spatial databases, multimedia databases, time-series databases, text databases, the World Wide Web, and applications in several fields. Three hours lecture. Three credit hours.

IFSC 5330 Database Security

Prerequisite: IFSC 3330 or equivalent or consent of the instructor. Focus on security issues in databases systems and introduction of how current and future commercial systems may be designed to ensure secrecy and confidentiality. Topics include security models, basic security mechanisms and software, statistical database security, intrusion detection, security models for next generation databases, tested techniques and proven strategies for securing an Oracle environment — from the operating system to the database to the network, and how to implement security using Oracle's built-in tools. Three hours lecture. Three credit hours.

IFSC 5339 Network Security

Prerequisite: MATH 1304 or equivalent and IFSC 3315 or CPSC 4384 or SYEN 3332 or MGMT 4310 or consent of the instructor. This course provides students with a concise and in-depth overview of security issues in current computer networks. It first gives a brief introduction of cryptographic algorithms and protocols underlying network security applications, including encryption, hash function, public key algorithm, digital signatures, and key exchanges. Then, it focuses on the security issues in current computer networks as well as network security tools and applications, including Kerberos, X.509v3 certificates, PGP, S/MIME, IP security, SSL/TLS, SET, and SNMPv3. The course will cover network intrusion-detection techniques and systems. Three hours lecture. Three credit hours.

IFSC 5345 Information Visualization

Prerequisites: MATH 1451 and IFSC 2300. The design and presentation of information. Use of graphics, animation, sound, visualization software, and hypermedia in helping users understand information. Methods of presenting complex information to enhance comprehension and analysis. Incorporation of visualization techniques into human-computer interfaces. Three hours lecture. Three credit hours.

IFSC 5360 Social Computing

Prerequisite: IFSC 1310 and IFSC 2300, or equivalent, or consent of Instructor. A hands-on course focusing on concepts of the social and information networks, Web as graph, models (such as Power law distribution, scale-free models, preferential attachment models, etc.) that simulate behavioral characteristics of these graphs, basic graph theoretical concepts, characteristics of social media and Web 2.0 or the Social Web (such as blogs, microblogging, social friendship networks, social bookmarking, social news, social media sharing, wikis, etc.), understanding and developing API and mashups, issues and challenges in data crawling and web analytics, network data visualization, exposure to information extraction and retrieval concepts aiming at the highly dynamic and noisy nature of social media, harnessing the collective and web intelligence, and basic concepts of cloud computing. Three lecture hours. Three credit hours.

IFSC 7100, 7200, 7300 Independent Study

Prerequisite: graduate standing and consent of the instructor. Individual study of a topic in information science under the supervision of the instructor. Topics determined in consultation with supervising faculty member. Agreement must be in writing and filed with the department. Student work will be evaluated by the instructor and documented through reports or other written means. Varies between one to three credit hours.

IFSC 7101 Research Methodology

Prerequisite: Graduate standing. A one-credit course in a set of three, introducing students to the research methodology of doctoral level research in the Integrated Computing field. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the Integrated Computing discipline.

IFSC 7102 Research Tools

Prerequisite: Graduate standing. A one-credit course in a set of three, introducing students to the research tools of doctoral level research in the Integrated Computing field. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the Integrated Computing discipline.

IFSC 7103 Research Applications

Prerequisite: SYEN/IFSC/CPSC 7101 and 7102. A one-credit course in a set of three, introducing students to examples of doctoral level research in the Integrated Computing field. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the Integrated Computing discipline. Students may with the permission of the graduate coordinator concurrently enroll in this course with either SYEN/IFSC/CPSC 7101 or 7102.

IFSC 7192 Graduate Seminar

Prerequisites: Graduate standing, consent of graduate coordinator. Students, faculty, and invited speakers will present discuss and exchange ideas on research topics of general interest to the graduate programs in the EIT college. One-hour session per week. Course may be repeated for credit. Graded: credit/no credit.

IFSC 7310 Information Systems Analysis

Methods of problem identification and definition, data collection and measurement, feasibility study methods, work measurement techniques, task analysis, simulation studies, impact analysis, evaluation methods, forms and display design, proposal writing, documentation and programming standards, design strategies, documentation, and evaluation. (3 credits)

IFSC 7320 Database Systems

The course covers two major areas. It first introduces principles and methodologies of database design, and basic techniques for database development. Then it introduces the fundamentals of information architecture and helps students understand how information architecture acts as the supporting structure aligning application design, technology, and business goals.

IFSC 7321 Information Science: Principles and Theory

Prerequisite: Graduate Standing. This course surveys the major topics in information science including a discussion of entropy, value strategies, security, extraction, and emission of information. Three credit hours.

IFSC 7325 Advanced Data Mining Applications

Prerequisites: IFSC 4325 or equivalent. This is an advanced course on data mining. The focus will be on new data mining techniques and their applications in health information systems, text mining and biological data mining. The course will include presentations and discussions of research papers and projects closely related to topics in data mining. The research papers will be selected from the course supplementary materials and consists of recently published topics on data mining and their applications. Three credit hours.

IFSC 7330 Information Systems Security

Prerequisite: MATH 2310 or equivalent, and IFSC 3320 or equivalent. This course aims at providing a solid theoretical foundation in Information Systems Security, including both Computer Security and Communications Security. The security issues in information systems as well as techniques for ensuring information systems security will be studied. The course will focus on the study of security policies, models, and mechanisms for secrecy, integrity, and availability. The basic principles of information systems security will be discussed, including basic cryptography and its applications, security in computer networks and distributed systems, access control models and mechanisms for database security, multilevel database security, stenography, Internet security, and control and prevention of viruses and other rogue programs.

IFSC 7331 Network Science

Study of network representations of physical, biological, and social phenomena leading to predictive models. This course will focus on the graph-theoretical, statistical and algorithmic foundations of network science. The course is designed for an interdisciplinary graduate audience with an information or computational science or engineering background, or by consent of the instructor. Three hours lecture. Three credit hours.

IFSC 7350 Electronic Commerce

Prerequisite: Doctoral-level standing by student or consent of instructor. Seminar style course designed for doctoral level student to be able to explore jointly the field of electronic commerce theoretically, conceptually and through applications including electronic markets, strategy, business models, impacts of information and communication technologies, organization and social behavior, as well as selected economic perspectives.

IFSC 7360 Data Protection and Privacy

This course considers the current status of data, information and privacy protection policies, laws and technologies. At the core is the variety of issues concerning informational privacy, i.e. the gathering, creating, storing, use and protection of information and data about individuals. Topics include the economics of data and privacy protection vis-a-vis the right of access to information, control, ownership, free flow, accuracy and use of information; commercial uses of personal information such as data mining and other marketing techniques, as well as the roles of government and the private sector in this setting. Newer information technologies, data mining, security measures, genetic tests and biobanks worldwide have raised important issues and questions.

IFSC 7370 Data Science and Technologies

Prerequisites: graduate standing and either IFSC 7320 or CPSC 7351 along with working knowledge of Java programming or consent of the instructor. This course provides a survey of the skills and concepts needed for managing, processing, and analyzing massive amounts of data in real time. Topics covered include data sourcing, storing and sharing, integration, and data mining strategies along with hands-on experience working with sample technologies selected from a complex ecosystem of tools and platforms.

IFSC 7399 Special Topics

Prerequisite: graduate standing and consent of the instructor. The course explores an emerging or advanced, specialized topic of current interest in information science. May be repeated for credit when subject varies. Three credit hours.

INTEGRATED COMPUTING

EIT Building, Room 579

Computer Science, EIT, Room 579, (501) 569-8130

Information Science, EIT 550, (501) 569-8951

Systems Engineering, EIT 518, (501) 569-3100

Doctor of Philosophy in Integrated Computing

The Integrated Computing Doctoral Program is housed in the Donaghey College of Engineering and Information Technology. Faculty, curriculum, and resources for this program come from three departments:

1. Computer Science,
2. Information Science, and
3. Systems Engineering.

This degree is designed to promote strong multidisciplinary collaborations across several computing disciplines whose bodies of knowledge influence and intertwine with each other. The following emphasis areas are offered:

Track Department	Description	Sponsoring
Net Integrated Computing	The Net Integrated Computing track focuses on the hardware components and software that allow diverse computer systems to interconnect to form the complex and dynamic computing networks necessary to support an organization's applications and information environment.	Systems Engineering and Computer Science
Computer Science	The Computer Science track focuses on the application architecture whose integrated software systems support the data and functional needs of the enterprise across diverse computing networks.	Computer Science
Information Science	The Information Science track focuses on the theory, applications, technologies, and systems that classify, manipulate, store, retrieve, and disseminate information.	Information Science
Information Quality	The Information Quality track focuses on the theory, principles, models, and techniques for delivering information that is "fit for use", an increasingly challenging task as organizations struggle with such issues as data architecture, identity resolution, data protection, and privacy.	Information Science

Graduate Assistantships

A limited number of graduate assistantships that support teaching and research opportunities are available to qualified full time students. Tuition is paid for 9 credits, and a stipend is provided for living expenses. Students must pay registration fees, buy textbooks, and purchase any necessary support materials. For more information about graduate assistantships, the online application process, and other financial assistance opportunities, visit the Integrated Computing website at ualr.edu/integratedcomputing. A student supported by a graduate assistantship must be a registered full time student taking at least nine credit hours during the Fall and Spring semesters and is prohibited from any other employment.

International Students

International students whose native language is not English and who do not have a degree from a regionally accredited U.S. institution of higher learning must demonstrate proficiency in written English via the Test of English as a Foreign Language (TOEFL). Applicants' scores must exceed 550 (paper-based test) or 213 (computer-based test) or 79 (internet-based test). Applicants with scores below but close to 550 (213 if computer-based test or 79 internet-based test) may be admitted provisionally upon the recommendation of the Integrated Computing Steering Committee to the Dean of Graduate School, and allowed to fulfill the TOEFL requirement as specified in the Graduate School admissions policies.

For applicants whose native language is not English and who are seeking financial support via a teaching assistantship, the student must demonstrate proficiency in spoken English via a score of 80% or higher on the American English Oral Communication Proficiency Test (AEOCPT) or a score of 5.0 or higher on the Test of Spoken English (TSE).

Admission Requirements

Applicants for the Integrated Computing program must meet the requirements of the UALR Graduate School in addition to the following criteria:

- Applicants must possess a bachelor's degree or higher from a regionally accredited institution. Students whose degree(s) are in an appropriate scientific discipline, such as engineering, mathematics, computer science, or technology area will be the most prepared to enter and successfully complete this program. Students should have an overall undergraduate GPA of at least 3.0 (4.0 scale) for their last 60 credit hours.
- Standard test scores (the Graduate Record Examinations (GRE)) taken within five years of application. The desired combined quantitative and verbal scores on the GRE is 301 or above (336 scale), with minimum score requirement of 142 and 144 for verbal and quantitative sections, respectively. Computer Science, Net Integrated Computing, and Information Science tracks have an additional minimum score requirement of 155 for quantitative section. In addition, applicants should demonstrate their ability to communicate complex ideas clearly and effectively either through a strong score on the GRE Analytical Writing Component (e.g., 3.5 or above on a 6.0 scale) or through samples of their written work.
- Three (3) letters of recommendation.
- Official college transcripts including grades and curriculum for undergraduate and (if applicable) graduate studies.
- Written statement by the applicant regarding the reasons (e.g. interests, relevant experience, and goals) why he or she should be considered for this Ph.D. program.
- Résumé detailing any professional work experience, published papers, or presentations

Note: All application materials must be submitted directly to the UALR Graduate School.

Integrated Computing track areas may vary in their allowances to the admission criteria stated above. The Integrated Computing Steering Committee will evaluate the compatibility between the applicant's background, research interests, and communication to skills vis-à-vis the doctoral program when making admission decisions, and may decline to admit an otherwise qualified application based on a lack of fit with the program.

Conditional Admission

Conversely, the Integrated Computing Steering Committee may recommend conditionally admitting for one semester a promising student who has less than the specified requirements for admission. These students may be required to take

prerequisite course work at the undergraduate level as part of the terms of their conditional admission. The conditional student must fulfill the admission requirements specified by the Integrated Computing Steering Committee by the specified time frame to be admitted fully (e.g., student may be required to maintain a B or higher in their first 12 hours of the program). Such students will be evaluated by the Integrated Computing Steering Committee after one semester and a decision made to: (1) continue conditional status, (2) grant full admission to the doctoral program, or (3) dismiss the student from the doctoral program.

Program Requirements

The program requires a minimum of 75 hours beyond the Baccalaureate degree. Specific requirements depend on the track area chosen and are detailed in this section. A minimum of thirty-three (33) credit hours of course-work is required from 5000 and 7000 level courses with a maximum of 6 credit hours of 5000 level courses that can be used toward this requirement. This thirty-three (33) credit hours of course-work must include six (6) credit hours of General Core classes, twelve (12) credit hours of Primary Track courses, a minimum of twelve (12) credit of electives, and three (3) credit hours of seminar courses. The student's plan of study must be developed in conjunction with his/her doctoral advisor and filed with the appropriate track coordinator as well as the Integrated Computing graduate coordinator.

The general core addresses the theoretical and methodological underpinnings common to all tracks. It is designed to provide the necessary breadth for all students in the program and consists of the following:

- Either a systems analysis/design course (for students in the Information Quality area) or a software engineering course (for students in all other emphasis areas)
- An information science course that joins together information theory, applications, and networks.

Each track core consists of four courses designed to give students the necessary depth in their specific area of concentration. In addition, students select at least 3 elective courses based on input from their advisor to further enhance their course portfolio. Electives can be selected from core courses of other tracks, non-track CPSC/IFSC/INFQ/SYEN graduate courses, or other graduate courses appropriate to the student's research interests from the fields of Science, Technology, Engineering, or Mathematics.

A minimum of 42 credit hours in the 9000-level doctoral research/dissertation is required. The research must be substantial and must extend the state of the art in the student's chosen emphasis area through theoretical development, design or process improvement, or experimental technique. Because the program is interdisciplinary in nature, students are expected to demonstrate scholarship exhibiting depth of competency in at least one of the track areas of the program and an understanding of the critical issues that extend across multiple track areas. If a student receives one C in his/her courses, he/she will be warned in writing that his/her academic performance is unacceptable and that his/her status will be reviewed by the Integrated Computing Steering Committee which will suggest corrective action. A student receiving two Cs or either a D or an F in his/her courses will be dismissed from the program, pending review by the Integrated Computing Steering Committee.

Writing Requirement

An English Writing Proficiency Exam (WPE) will be offered each Spring semester by the Integrated Computing Program. This exam assesses the student's ability to communicate in a written format. Each student must pass this exam to fulfill graduation requirements. A student who does not pass the WPE is required to take the English Writing Proficiency Laboratory (EWPL). The EWPL is offered each spring term. The student must take the EWPL each spring term until they pass.

Seminar Requirement

All PhD students are required to register for the one (1) credit hour Integrated Computing Seminar for three semesters. This credit hour will count toward the overall program's minimum requirements of 75 credits. The seminar is designed to promote beneficial synergistic, and collaborative relationships between students and faculty across the emphasis areas through the dissemination and discussion of research that cuts across computing and information boundaries. In addition, students are required to complete Responsible Conduct of Research, an online research ethics course (Citiprogram.Org), to gain awareness and understanding of ethical principles and situations in their disciplines.

Transfer of Credit

For students who have completed some graduate work or who have an MS in a non-related field, up to twelve (12) graduate hours may be granted to the student for completing equivalent graduate course work from other institutions based upon the applicability of the courses to the student's educational goals in the Integrated Computing program. Such credit must be exclusive of thesis or other exit project credits, be no more than five years old at the time of transfer, and must have a letter grade of B or greater. Students interested in requesting a credit transfer should discuss the request with their doctoral advisor and appropriate track coordinator.

The request must also be approved by the Integrated Computing graduate coordinator and the dean of the Graduate School before the transfer of credit can be granted. In some cases students may be required to balance their transfer credit with a corresponding increase in research hours. The student's advisory committee will determine which transferred credit hours will be counted towards the IGCP degree based upon the applicability of the courses selected for dissertation work and student's educational goals.

Candidacy Exam

The purpose of the candidacy examination is to determine whether the applicant possesses the attributes of a doctoral candidate. Candidacy exams will be held twice a year after the start of Fall and Spring classes. The candidacy exam is a comprehensive test composed of four topic areas, each of which must be passed.

Four topic areas for each program track are as follows:

Computer Science Track:	Information Science Track:
Algorithm and Theory	Database Systems
Operating Systems	Data Mining
Computer Architecture	Programming Languages
Programming Languages	Network Science
Net Integrated Computer Track:	Information Quality Track:
Performance Analysis	Information Quality Value and Business Impact
Operating Systems	Information Quality Strategy, Policy, and Governance
Network Protocols	Information Quality Assessment, Improvement, and Sustainability
Network Architecture	Information and Information Systems Architecture Quality

The student may attempt the candidacy exam a maximum of two times and must attempt it in consecutive semesters. A student who has not passed all topic areas after the second offering will be dismissed from the program pending review by the faculty who created and graded the failed exam(s) along with input from members of the Integrated Computing Steering Committee.

Students may attempt their exams no sooner than the beginning of the second semester in the program. All students in the program will be required to take their candidacy exams in the four topic areas within one (1) semester after completing all their general core and primary track courses. Students with sufficient background obtained through undergraduate/graduate course work and who demonstrate fundamental knowledge in their track can apply with their advisor's permission to take the exam earlier.

Extensions may be granted in the event of special circumstances such as a serious medical episode, pregnancy, or military deployment. Upon successful completion of the candidacy exams, the student will be granted candidacy status.

Doctoral Advisory Committee

Each student will choose a faculty member to be his or her mentor through the doctoral program. New students will be advised initially (i.e., their first semester) by the Track Coordinator of the student's chosen emphasis area. Through lab rotations and interactions with faculty, most students should have selected a Doctoral Advisor to guide them through their course work, preparation for the candidacy exams, and dissertation process by the end of their first two semesters.

The role of the Doctoral Advisory Committee is to advise and help direct a student's academic and research program. Students should select and meet with their Doctoral Advisory Committee prior to the completion of the third semester. The Doctoral Advisory Committee will be composed of a minimum of five members, including the committee chair, who will be the student's doctoral advisor. Four of the five members including the chair must be Integrated Computing doctoral faculty members. The at-large member(s) may be any other UALR graduate faculty or non-UALR faculty with appropriate graduate status. The Integrated Computing Steering Committee must approve the committee constituency after the initial review by the Integrated Computing graduate coordinator.

Dissertation Proposal

Following the completion of the candidacy exams, candidates will write a dissertation proposal for their doctoral advisory committee detailing the intended research and its rationale in National Science Foundation (NSF) format. Students should allow for ample time between the dissertation proposal and the dissertation defense (typically between one to two years depending on the student's background). The dissertation subject must be a scholarly contribution to a major field of Integrated Computing in the student's emphasis area, consisting of new important knowledge or a major modification, amplification, or interpretation of existing significant knowledge.

The proposal will be given to the doctoral advisory committee two weeks in advance of meeting with the committee. The student must orally defend the rationale and experimental procedures for the proposal doctoral dissertation. Students are encouraged to present an open seminar on the proposal prior to meeting with the doctoral advisory committee. Students who fail the proposal may be dismissed from the program. Supervisory or examining committee report forms must be filed at the conclusion of the defense with the Track coordinator as well as the Integrated Computing graduate coordinator.

Dissertation Defense

In order to complete the requirements for the Ph.D. degree, students must prepare and successfully defend a written dissertation in accordance with the format and procedure dictated by the UALR Graduate School. Students will orally defend their completed Ph.D. research to their doctoral advisory committee. The date and location of the defense must be publicized at least two weeks in advance. The first part of this final examination will be open to the public and will consist of an open seminar on the student's research. This will be followed by a closed examination during which the candidate's work will be examined by the doctoral advisory committee. This examination will follow the guidelines established by the UALR Graduate School. The examination can be wide-ranging, but it will usually utilize the student's research as a starting point. At the completion of the examination, the doctoral advisory committee will vote to either pass or fail the student. If two negative votes are received from committee members, it is considered a failure of the exam. Supervisory or examining committee report forms must be filed at the conclusion of the defense with the Track coordinator as well as the Integrated Computing graduate coordinator.

Graduation Requirements

Summary of graduation requirements:

- Successful completion of an approved program of study with a minimum GPA of 3.0
- Successful completion of candidacy examination
- Successful completion of proposal and oral defense
- Successful completion of dissertation and oral defense
- Successful completion of writing, seminar, and ethics requirements

Additional Program Requirements:

A maximum of two (2) 5000-level courses may be applied toward the Ph.D. degree. Note: Some tracks incorporate 5000-level required courses so students electing these emphasis areas may be restricted in the number of additional 5000-level electives that they can take.

- Only one (1) independent study course (3 credits) can be applied toward the Ph.D. degree.
- Only two (2) special topic courses can be applied toward the Ph.D. degree.

- Students must possess the prerequisites for all core and track courses in their intended area of study.
- Students may be required to take additional courses to gain the necessary prerequisite knowledge.

Required Courses for Integrated Computing Emphases

A list of courses used in the various tracks of the Integrated Computing Doctoral Program along with descriptions is provided on the following pages. Additional elective courses can be found in the “Master of Science in Systems Engineering,” “Master of Science in Computer Science,” and “Master of Science in Information Quality” sections in this catalog. Other courses may be approved in consultation between the student and his or her doctoral advisor.

General Core Course Descriptions

CPSC 7311 Software Engineering

Prerequisite: Working knowledge of C and C++ programming languages. An overview of the software development paradigm including the software life cycle, prototyping, and object-orientation; reliability, quality assurance, formal methods, and CASE tools. (3 credits)

Note: Students enrolled in the Information Quality Track may substitute CPSC 7382 Systems Analysis and Design or IFSC 7310 Information Systems Analysis in place of the CPSC 7311 Software Engineering Course.

CPSC 7382 Systems Analysis and Design

Prerequisite: graduate standing. Analysis and design of computer information services to meet the needs of industries and businesses; intended as a real-world practicum via field study, and as a community outreach via the provision of expertise and training.

IFSC 7310 Information Systems Analysis

Methods of problem identification and definition, data collection and measurement, feasibility study methods, work measurement techniques, task analysis, simulation studies, impact analysis, evaluation methods, forms and display design, proposal writing, documentation and programming standards, design strategies, documentation, and evaluation. (3 credits)

IFSC 7321 Information Science and Theory

This course provides a rigorous exploration of information theory including entropy, value strategies, security, extraction, and emission of information. (3 credits)

Primary Track Course Descriptions – Net Integrated Computing Emphasis Area

CPSC 7341 Telecommunication and Networking

Fundamentals of data communications; topologies and transmission media; protocol architecture; LAN, MAN, and WAN systems; network design issues. (3 credits)

CPSC 7343 Sensor Networks

This course aims to develop fundamental understanding of sensor network systems. It covers architectures and communications protocols for sensor networks. Node and network architectures, naming and addressing, time synchronization, localization and positioning, topology control, and content-based networking are all covered. At the completion of the course, students will understand how sensor networks work as intelligent and coordinated systems. (3 credits)

SYEN 5336 Advances in Communication Network: Essentials of B-ISDN, InteServ, MPLS, DiffServ

Advances in optical networks, wireless networks, satellite networks, sensor networks, ad hoc networks, access networks, and autonomous networks. FSO technology. VoIP and video-over-IP. Modeling and optimization of networks. Communication switch OS. Elementary queuing theory. Security issues. OPNET training. Socket programming. (3 credits)

SYEN 5359 Optical Networking

Prerequisites SYEN 5355 or consent of instructor. Optical networking fundamentals, basic building blocks, local access and metro networks, SONET, WDM, DWDM, topology optimization, traffic grooming, optical control including GMPLS, wavelength conversion, survivability, restoration. (3 credits)

Primary Track Course Descriptions – Computer Science Emphasis Area

CPSC 7325 Software Security Assessment

This course covers the spectrum of software vulnerabilities in both UNIX/Linux and Windows environments. It demonstrates how to audit security in applications of all sizes and functions, including network and Web software using examples of real code drawn from past flaws discovered in high-profile applications. (3 credits)

CPSC 7331 Computer Architecture or SYEN 5331 Advanced Computer Architecture

CPSC 7331 is a study of computer architecture fundamentals; the impact of technology on architecture cost and performance; Instruction Set Architecture; design and analysis of the building blocks of computer systems, including data path, control and memory hierarchy; recent architectural developments (3 credits). SYEN 5331 covers introduction to Computer Systems, Instruction-Set architecture, Arithmetic/Logic Unit, Data Path and Control, Memory System Design, I/O Interface, and Advanced Architectures (3 credits).

CPSC 7341 Telecommunication and Networking

Fundamentals of data communications; topologies and transmission media, protocol architecture; LAN, MAN, and WAN systems; network design issues. (3 credits)

CPSC 7385 Analysis of Algorithms

A study of categories of computer algorithms greedy, divide-and-conquer, recursive, and probabilistic; performance analysis techniques order relations, recurrence relations, generating functions, induction, simulation; storage efficiency issues; complexity theory. (3 credits)

Primary Track Course Descriptions – Information Science Emphasis Area

CPSC 7351 Database Design or IFSC 7320 Database Systems and Information Architecture

This course covers design process, objectives, techniques, syntactic and semantic analysis design; entity relationships model, binary and n-ary relationships, minimality of relations, recursive relationships, role-modeling structures, aggregate objects, conversion methods, implementation models, evaluating design, choosing design methodologies (3 credits). IFSC 7320 covers two major areas. It first introduces principles and methodologies of database design, and basic techniques for database development. Then it introduces the fundamentals of information architecture and helps students understand how information architecture acts as the supporting structure aligning application design, technology, and business goals. (3 credits)

IFSC 5345 Information Visualization

The design and presentation of information. Use of graphics, animation, sound, visualization software, and hypermedia in helping users understand information. Methods of presenting complex information to enhance comprehension and analysis. Incorporation of visualization techniques into human-computer interfaces. (3 credit hours)

IFSC 7360 Data and Information Privacy

Concepts and methods for creating technologies and related policies with provable guarantees of privacy protection while allowing society to collect and share person-specific information for necessary and worthy purposes. Methods include those related to the identifiability of data, record linkage, data profiling, data fusion, data anonymity, de-identification, policy specification and enforcement and privacy-preserving data mining.

IFSC 7370 Data Science and Technologies

Prerequisites: graduate standing and either IFSC 7320 or CPSC 7351 along with working knowledge of Java programming or consent of the instructor. This course provides a survey of the skills and concepts needed for managing, processing, and analyzing massive amounts of data in real time. Topics covered include data sourcing, storing and sharing, integration, and data mining strategies along with hands-on experience working with sample technologies selected from a complex ecosystem of tools and platforms.

Primary Track Course Descriptions – Information Quality Emphasis Area

CPSC 7351 Database Design or IFSC 7320

Database Systems and Information Architecture CPSC 7351 covers design process, objectives, techniques, syntactic and semantic analysis design; entity relationships model, binary and n-ary relationships, minimality of relations, recursive relationships, role-modeling structures, aggregate objects, conversion methods, implementation models, evaluating design, choosing design methodologies (3 credits). IFSC 7320 covers two major areas. It first introduces principles and methodologies of database design, and basic techniques for database development. Then it introduces the fundamentals of information architecture and helps students understand how information architecture acts as the supporting structure aligning application design, technology, and business goals. (3 credits)

INFQ 7303 Principles of Information Quality

This course provides a rigorous exploration of information quality concepts, assessment, and problems in organizational information systems, databases and data warehouses. A combination of state of the art literature review and hands-on projects is used to develop knowledge and ability to meet objectives (3 credits).

INFQ 7322 Information Quality Theory

This course is designed to provide students with the theoretical foundations critical for developing a deep understanding of the state-of-the-art information quality research from the technical, organizational and strategic perspectives. This course will prepare students to work on their thesis, project, and conduct research in the field of information quality. More specifically, students will be exposed to concepts, principles, tools, and models, and techniques that are essential for information quality definitions, measurement, analysis, and improvement. Additionally, students will be exposed to the most current, cutting-edge research that goes beyond current industry practice in information quality (3 credits).

INFQ 7367 Information Quality Policy and Strategy

This course explores the top management, strategic perspective for aligning competitive strategy, core competencies, and information quality. Topics include the development and implementation of IQ policies and plans to achieve organizational goals; how to define systems that support the operational, administrative, and strategic IQ needs of the organization, its business units, and individual employees; approaches to managing technology and the information systems function in organizations, role of the CIO (3 credits)

Graduate Certificate and Master of Science

The Systems Engineering Department of the Donaghey College of Engineering and Information Technology offers a Graduate Certificate in Systems Engineering and a Master of Science degree in Systems Engineering. Both offerings allow students to specialize in systems engineering topics such as: Systems Engineering Design, Requirements and Functional Analysis, Systems Architecture Development, Design for Operational Feasibility, System Integration, Decision and Risk Analysis, Engineering Project Management, System Lifecycle Cost Analysis, and Organization for Systems Engineering.

The Graduate Certificate in Systems Engineering program can help students bring together knowledge from traditional engineering fields, creating the “big picture” for accomplishing goals and managing complex structures such as: Computer Networks, Wireless Networks, Power Plants, Airplanes and Spacecraft Systems, Manufacturing Systems, Transportation Systems, and Healthcare Delivery Systems.

Building upon the theme of the graduate certificate, the Master of Science in Systems Engineering program provides unique opportunities for the traditional student as well as for the professional engineering community to broaden their knowledge base and acquire state-of-the-art technical skills. The program helps students to integrate multifaceted engineering projects, model complex engineering systems and optimize their performance, and conduct real-life case studies by carrying out electrical, computers, telecommunications, or mechanical engineering projects. The Master of Science in Systems Engineering program prepares engineers for professional practice in today’s complex technical environment, and also, offers cutting-edge knowledge base for innovation and advanced research. To support these goals, both thesis and non-thesis options are available in the program.

Graduate Certificate in Systems Engineering

The Graduate Certificate in Systems Engineering imparts fundamental knowledge, tools, and techniques that prepare industry professionals and students to work in systems engineering related jobs.

Admission Requirements

The minimum entrance requirement is a bachelor’s degree in engineering, science, technology, or a related discipline. Because of the professional nature of the certificate, the precise entrance requirements are determined on a case-by-case basis by the Systems Engineering Admissions Committee.

Program Requirements

The Graduate Certificate consists of 18 credit hours of course work (which amounts to about half of a typical master’s degree requirement). It is ideal for working professionals who wish to upgrade their knowledge and skills in the intricacies of systems engineering. Certificate holders who have finished the program may further pursue a master’s degree in Systems Engineering, building upon the 18 hours already taken in the Certificate Program. For the Certificate, students must take six, three-credit-hour courses, consisting of four Systems Engineering core courses and two electives.

Core Courses (12 hours)

The Systems Engineering (SYEN) core courses are intended to provide the fundamental methods relevant to the design, implementation, and management of engineering systems. They include:

SYEN 7311 Systems Design and Analysis

SYEN 7312 Systems Architecture and Design

SYEN 7313 Systems Management and Evaluation

SYEN 7314 Multicriteria Decision and Risk Analysis

These four courses address methods and practices involved in the translation of need, deficiency, or market opportunity into a feasible system or product architecture.

Electives (6 hours)

Due to the diversity of students' educational and professional backgrounds, students are encouraged to choose two upper-level elective courses (5000-level or above) that are compatible with their specific interests. These two technical courses need to be approved in advance by the Graduate Coordinator, and can be chosen from university departments such as: Systems Engineering, Computer Science, Information Science, or other graduate science- or engineering-related programs. Sample Upper- and Graduate-Level Electives are listed below after the master's program description.

Master of Science in Systems Engineering

The master's program in Systems Engineering requires 31 credit hours of work that includes graduate course work with an option to carry out either a thesis or a graduate project.

Admission Requirements

In addition to the UALR Graduate School admission requirements, the applicants for the M.S. program in Systems Engineering must also meet the following criteria:

Education: Applicants must have a bachelor's degree in engineering, technology, science or related discipline. The applicants must have an overall undergraduate GPA of 3.0 or 3.3 on the last 60 credit hours.

Standardized test scores: Applicants must have a minimum score on the GRE test: a score of 140 on the Verbal Reasoning section, a score of 155 on the Quantitative Reasoning section, and a score of 3.5 in the Analytical Writing section. GRE will be waived if the student's GPA is 3.5 or higher.

English language requirement: International students must satisfy the Graduate School TOEFL or IELTS tests requirements.

Applicants who do not meet all the admission requirements may be recommended for conditional admission. The conditionally admitted students must fulfill the requirements of the UALR Graduate School and those specified in their letter of admission.

Program Requirements

The Master of Science program in Systems Engineering consists of a minimum of 31 credit hours beyond the baccalaureate degree, of which a maximum of six hours can be transferred from a graduate program from another university with the graduate coordinator's approval. All credit hours earned in the Systems Engineering Graduate Certificate Program are transferable into the master's program upon admission into the master's program, provided the GPA from the certificate program is 3.25 or better.

In addition, the students are required to maintain acceptable academic performance: all master's course work must be completed with a minimum GPA of 3.0. If a student receives one "C" in the course work, the student will be warned that his/her academic performance is unacceptable and that the student will be reviewed by the Systems Engineering faculty, which will suggest corrective action. A student receiving two "C's" will be dismissed from the program, pending review by the Systems Engineering faculty.

Master of Science in Systems Engineering Curriculum

The student's plan of study must be developed in conjunction with his/her thesis/project major advisor or Graduate Coordinator and filed with the Systems Engineering Graduate Coordinator.

Program Core: The program core provides students the strong systems engineering preparation needed for either a successful professional career in one of the emerging engineering fields, or for further enhancing their education in high-quality engineering doctoral programs.

Systems Engineering Required Core - 12 credit hours:

SYEN 7311 Systems Design and Analysis
SYEN 7312 Systems Architecture and Design
SYEN 7314 Multicriteria Decision and Risk Analysis
SYEN 7313 Systems Management and Evaluation

Systems Engineering Seminar- 1 credit hour:

SYEN 7190 Systems Engineering Seminar (offered on a credit/no-credit basis).

Thesis Option- 6 credit hours:

SYEN 8100-8600 Systems Engineering Master's Thesis

Non-Thesis Option- 3 credit hours:

SYEN 7385 Systems Engineering Graduate Project

Program Electives:

Thesis Option - 12 credit hours

Non-Thesis Option- 15 credit hours

In consultation with the graduate coordinator or thesis/project major advisor, students may take their elective course credits from any of the following sample courses. The courses are listed by categories only for easy reference. Students should take at least two 7000-level elective courses.

Systems Analysis and Applications

SYEN 5314 Queuing Theory and Systems
SYEN 5322 Modeling Transportation Systems
SYEN 5342 Linear Program and Network Flows
SYEN 7315 Complex Engineered Systems
SYEN 7316 Advanced Systems Simulation
SYEN 7342 Networks and Combinatorial Optimization

Electrical and Computer Engineering

SYEN 5308 Linux Systems Programming
SYEN 5320 Linear State-Space Control Systems
SYEN 5325 Fuzzy Logic in Control and Systems Engineering
SYEN 5329 Robust and Optimal Control Systems
SYEN 5331 Advanced Computer Architecture
SYEN 5332 Applied Operating Systems
SYEN 5334 Software Systems Engineering
SYEN 5335 Mechatronics I
SYEN 5362 Neural Networks and Adaptive Systems
SYEN 5354 Power Systems Analysis
SYEN 5366 Advanced Digital Systems
SYEN 7302 Advanced Electronics for Instrumentation
SYEN 7306 Real-Time Embedded Systems
SYEN 7320 Linear Systems Theory
SYEN 7331 Transducers in Real-Time Control
SYEN 7332 Advanced Operating System Design

Mechanical Engineering

SYEN 5182 MEMS and Microsystems Laboratory
SYEN 5282 Microelectromechanical Systems (MEMS) and Microsystems

SYEN 5315 Advanced Dynamics I
SYEN 5326 Measurement Techniques
SYEN 5327 Acoustics I
SYEN 5335 Mechatronics I
SYEN 5340 Applied Numerical Methods
SYEN 5371 Advanced Continuum Mechanics
SYEN 5372 Mechatronics II
SYEN 5375 Mechanical Vibrations
SYEN 5381 Thermal and Fluid Systems
SYEN 5383 Finite Element Analysis
SYEN 5384 Computer Methods in Fluid and Heat Transfer
SYEN 7307 Smart Materials
SYEN 7317 Nanostructural Materials: Physical and Chemical Properties
SYEN 7318 Micro- and Nano-Fabrication
SYEN 7374 Elasticity
SYEN 7376 Fracture Mechanics

Telecommunications, Networking, and Signal Processing

SYEN 5310 Introduction to Signal Processing
SYEN 5336 Advances in Communication Networks
SYEN 5350 Digital Signal Processing
SYEN 5352 Spatial Time Series
SYEN 5353 Advanced Digital Communications
SYEN 5355 Mobile Multimedia Internet
SYEN 5356 RF Techniques and Systems
SYEN 5358 Cellular and Wireless Communications
SYEN 5359 Optical Networking
SYEN 7355 Statistical Signal Processing
SYEN 7357 Advanced Antennas for Wireless Systems

Miscellaneous

SYEN 5300, 7300 Independent Study
SYEN 5389 Professional Engineering Licensure
SYEN 5399 Special Topics* in Systems Engineering
SYEN 7101 Research Methodology
SYEN 7102 Research Tools
SYEN 7103 Research Applications
SYEN 7118 Research Ethics in Science and Engineering
SYEN 7385 Systems Engineering Graduate Project
SYEN 7399 Special Topics* in Systems Engineering
SYEN 8100-8600 Systems Engineering Master's Thesis

* Based on demand, special topics under SYEN 5399 and SYEN 7399 may include:

Optimization of Communication Networks
Design and Analysis of Advanced Manufacturing Systems
Economic Evaluation of Engineering Projects
Renewable Energy Smart Grid
Essentials of Coding Theory
Human Movement Biomechanics and Motor Control

Master's Thesis/Project Advisor

A student admitted to the master's program should declare an advisor before he/she enrolls in master's thesis or graduate project courses.

Master's Thesis/Project Committee

The Master's Thesis Committee or Master's Project Committee can be constituted once the student has declared his/her Master's Thesis/Project Advisor. The committee will include a minimum of three members and a maximum of four members. At least two members have to be Systems Engineering faculty.

Thesis/Project Proposal Defense

Students choosing the thesis option must present their research proposal to their Master's Thesis Committee one semester prior to their final thesis defense. Students choosing the non-thesis option must present their project proposal to their Master's Project Committee before their final project defense. At the completion of the examination, the Master's Thesis or Project Committee will vote to either pass or fail the student. Students who fail the proposal defense will have to repeat the defense. If the student fails the proposal defense for a second time, he/she will be dismissed from the program, pending review by the Systems Engineering Faculty.

Thesis/Project Defense

Students choosing the thesis option will prepare and successfully define a written thesis in accordance with the format and procedures dictated by the Graduate School. Students choosing the non-thesis option will prepare a final project report according to the requirements defined by their Master's Project Committee. Students must orally defend their completed thesis research or project work to their Master's Thesis or Project Committee. At the completion of the examination, the Master's Thesis or Project Committee will vote to either pass or fail the student. If two or more negative votes are cast by the committee members, the student is considered to have failed the exam and will be dismissed from the program, pending review by the Systems Engineering Faculty.

Graduation Requirements

- Pass thesis proposal defense/project proposal defense
- Pass thesis final defense/project final defense

Courses in Systems Engineering

SYEN 5182 MEMS and Microsystems Laboratory

Prerequisites: SYEN 4376 and 4176, or consent of instructor. This laboratory course is an introduction to the principles of micro-fabrication for microelectronic devices, sensors, and micromechanical structures, MEMS, and microsystems with applications in engineering. Course comprises of laboratory work and accompanying lectures that cover silicon oxidation, photolithography, thin film deposition, etching, electrochemical deposition (plating) and packaging. Some selected topic in yield and reliability, as well as process simulation may be covered. Two hours lab. One credit hour.

SYEN 5199, 5299, 5399, 5499 Special Topics

Prerequisite: Consent of the instructor. Advanced specialized topics of current interest in systems engineering. Topics vary with faculty interest and availability. One, two, three, or four hours lecture. One, two, three, or four hours.

SYEN 5282 Microelectromechanical Systems (MEMS) and Microsystems

Prerequisite: SYEN 3372 or equivalent and corequisite concurrent 5182 or equivalent with a grade of C or better. In this introductory MEMS class, we cover the fundamental basis of microsystems technology. Microelectromechanical devices (MEMS), such as actuators, pressure sensors, and opto-mechanical assemblies, require knowledge of a broad range of disciplines, from microfabrication and mechanics to chemistry and solid state device physics. Three hours lecture. Note: Students enrolled in SYEN 5282 do a project related to course contents. SYEN 5282 is not open to students with credit for SYEN 4282. Two credit hours.

SYEN 5300 Independent Study

Prerequisite: Graduate standing, and consent of the instructor. Individual investigation on entry level topics by a graduate student. Topics determined in consultation with supervising faculty. Agreement must be in writing and filed with the department chairperson. The student work will be evaluated through reports or other means and documented by the faculty. A maximum of six credit hours of independent study courses, SYEN 5300 and/or SYEN 7300, can be applied toward the degree requirements. Three credit hours.

SYEN 5308 Linux Systems Programming

Prerequisite: CPSC 2376 or equivalent. This course introduces the fundamental structure and services of the Unix/Linux operating systems. Upon completion of this course, the students should master application software and middle-ware design in Unix/Linux operating system through programming at the system call level. It covers files and directories, device control, terminal handling, process and threads, inter-process communication, event-driven and signal handling, pipes, sockets, client/server. It also covers graphics and user interface design. Students who have taken SYEN 4308 for credit cannot take SYEN 5308 for credit. Three credit hours.

SYEN 5310 Introduction to Signal Processing

Prerequisite: MATH 3322 or equivalent. Introduction to the fundamental concepts in signal processing. Use of the fundamental transform techniques (Laplace transform, discrete Fourier transform, z-transform). Discrete time representation of signal, linear time invariant subsystems. Correlation, coherence and time delays, Standard system models (ARMA, ARMAC). FIR and IIR filters. Three hours lecture. Three credit hours.

SYEN 5314 Queuing Theory and Systems

Prerequisite(s): SYEN 3314 or equivalent. The theoretical foundations, models and techniques of queuing theory are presented. Topics include classic models of queues including simple and advanced Markovian queuing models, and models of queues with general arrival and service patterns. Applications of queuing theory and queuing systems design considerations. Three hours lecture. Three credit hours.

SYEN 5315 Advanced Dynamics I

Prerequisite: MATH 2453. Kinematics of translating and rotating vectors. Dynamics of systems of particles and rigid bodies. Angular momentum. Newtonian mechanics. Lagrangian mechanics. Examples drawn from the fields of robotics, biological motion, and planetary motion. Three hours lecture. Three credit hours.

SYEN 5320 Linear Systems Theory

Prerequisites: SYEN 3364 or consent of instructor. Introduction to modern control systems, state-space models of linear time-invariant systems, solution to state equations, linear transformations and canonical forms, stability analysis, controller synthesis via state feedback, tracking system design, observer-based compensator design, optimal control problems. Three hours lecture. Three credit hours.

SYEN 5322 Modeling Transportation Systems

Prerequisite(s): SYEN 3312, SYEN 3314, or Consent of Instructor. The objectives of transportation analysis are defined to include mobility provision, consequence identification and selection of courses of action. A set of methodologies have evolved to exclusively address transport modeling, including demand forecasting, technology representation, network-flow, and multi-attribute assessment- of performance. This course reviews very powerful tools to analyze such a class of technological and socioeconomic problems, characterized by the explicit recognition of a spatial dimension. Three hours lecture. Three credit hours.

SYEN 5325 Fuzzy Logic Systems

Prerequisite(s): SYEN 3364. Introduction, basic concepts of fuzzy logic, fuzzy sets, fuzzy relations, Fuzzy If-Then rules, fuzzy implications and approximate reasoning, fuzzy logic in control theory, hierarchical intelligent control, fuzzy logic applications in information systems, fuzzy model identification, neuro-fuzzy systems and genetic algorithms. Three hours lecture. Three credit hours.

SYEN 5326 Measurement Techniques

Prerequisite: SYEN 2315 or equivalent. Principles of operation and implementation of transducers used in electronic measuring systems. Sensors used for the measurement of strength, capacitance, pressure, flow, force velocity, temperature, humidity, vibration, sound, and acceleration are discussed. Interfacing transducers with a digital system will be emphasized. Effects of quantization, scaling, sampling time, and bandwidth will be examined. Two hours lecture and two hours laboratory work. Three credit hours.

SYEN 5327 Acoustics I

Prerequisite: MATH 2353 or equivalent. Development of the equations for acoustics and vibrations. Transducers for measurement of sound and acceleration. Design of sonic actuators using network analysis. Analog and digital processing of signals, including spectral analysis, adaptive signal processing, and central analysis. Applications to noise analysis and control and machinery diagnosis through sound.

SYEN 5329 Robust and Optimal Control

Prerequisite(s): SYEN 3364, MATH 3312. Linear discrete- and continuous-time systems, state equations, transition matrix, internal stability, Lyapunov stability, controllability, observability, realization, linear feedback, state observation, polynomial fraction description, geometric theory, discrete-time stability, reachability, observability, realization, state feedback and observation. Three hours lecture. Three credit hours.

SYEN 5331 Advanced Computer Architecture

Prerequisites: SYEN 3336 or consent of instructor. Introduction to Computer Systems, Instruction-Set architecture, Arithmetic/Logic Unit, Data Path and Control, Memory System Design, I/O Interface, and Advanced Architectures. Three hours lecture. Three credit hours.

SYEN 5332 Applied Operating Systems

Prerequisites: SYEN 3362. Introduction to operating systems. Buffering, physical input/output, and file management. Multiprogramming and processing, resource scheduling, memory management, concept of virtual memory, Process management and scheduling. Device management and scheduling. Process communication, network communication, and protection. The graduate students will use the C language to implement several generic OS components, practice the process management, and practice the shared memory utilities. Three hours lecture. Three credit hours.

SYEN 5334 Software Systems Engineering

Prerequisite: SYEN 3362, Engineering approach to the development of software systems, including the life cycle steps of project planning, requirements analysis and specification, design, production, testing, and maintenance of software systems. Students are required to do a project related to course contents, Dual-listed in UALR Undergraduate catalog as SYEN 4334. Not open to students with credit for SYEN 4334. Three hours lecture. Three credit hours.

SYEN 5335 Mechatronics I

Prerequisite: MATH 2453 or equivalent, PHYS 2321 or equivalent. This course covers basic mechanical design elements, including gears, fasteners, bearings, sprockets and chains, timing pulleys, brakes and clutches. Methods of attaching power and timing elements to shafts, including standard keys, Woodruff keys, splines, pins, and press-fits, is covered. Integration of sensors, including potentiometers, limit switches, and yaw rate sensors is covered. Theories of failure will be introduced, and basic stress/strain calculations will be done. Design theories and project management will be introduced. Three hours lecture. Three credit hours.

SYEN 5336 Advances in Communication Networks

Prerequisites: SYEN 3312, 3316, and 3332. Essentials of B-ISDN, InteServ, MPLS, DiffServ. Advances in optical networks, wireless networks, satellite networks, sensor networks, ad hoc networks, access networks, and autonomous networks. FSO technology. VoIP and video-over-IP. Modeling and optimization of networks. Communication switch OS. Elementary queuing theory. Security issues. OPNET training. Socket programming. Three hours lecture. Three credit hours.

SYEN 5340 Applied Numerical Methods

Prerequisite: SYEN 1305; MATH 3312 and 3322. Scientific computing, error analysis, roots of equations, systems of equations, curve fitting, numerical differentiation and integration, ordinary and partial differential equations. Three hours lecture. Three credit hours. Students are required to do a term project related to the contents of the course. Dual-listed in UALR undergraduate catalog as SYEN 4340. Course not open to students with credit for SYEN 4340.

SYEN 5342 Linear Programming and Network Flows

Prerequisites: SYEN 3312, or consent of instructor. This course covers salient linear optimization topics, including computational issues such as decomposition, LU factorization, and network flow. Of equal interest is the equivalence between algebraic and graph-theoretic representation of a model and its solution algorithms. The relationship between the network flow paradigm and discrete optimization is also emphasized. Last but not least are the software libraries to solve linear optimization models. Three hours lecture. Three credit hours.

SYEN 5350 Digital Signal Processing

Prerequisite(s): SYEN 3350 or consent of the instructor. Signals and signal processing; discrete-time signals and systems in the time and frequency domains; digital processing of continuous-time signals; finite-length discrete transforms; discrete-time signals and systems in the z-domain; LTI discrete-time systems in the transform domain; digital filter structures; IIR digital filter design; FIR digital filter design; DSP algorithm implementation; analysis of finite word-length effects; multi-rate DSP fundamentals; multi-rate filter banks and wavelets; applications of DSP. Three hours lecture. Three credit hours.

SYEN 5352 Spatial Time Series

Prerequisite(s): SYEN 3312 or equivalent, STAT 3353 or equivalent, or Consent of Instructor. Instead of a single stream of data, multiple streams gathered over the target can provide better information. Because of the inherent spatial correlation among these data streams, spatial time-series can play an important role in multiple-sensor and other data-intensive applications. Image-processing applications include image rectification and restoration, image enhancement, image classification, and data merging. Signal processing applications include the Spatial-temporal Autoregressive Moving-Average model and Intervention Analysis. Unifying these diverse analyses and applications is Markov Random Field Theory. Three hours lecture. Three credit hours.

SYEN 5353 Advanced Digital Communications

Prerequisites: SYEN 3354 or consent of the instructor. This course provides an in-depth examination of wireless digital communication design strategies. Topics covered include digital modulation, radio wave propagation characteristics, signal detection methods, BER performance improvement and simulation techniques, RF/hardware architectures, migration path for modulation and demodulation techniques, signal processing building blocks for wireless systems, methods for mitigating wireless channel impairments, perform system simulations, BER and channel models, predict system performance and evaluate tradeoffs, list TDMA and CDMA techniques, and 3G evolution, describe design issues for wireless systems, particularly those issues in which transmit and receive implementation affect system performance. Three hours lecture. Three credit hours.

SYEN 5354 Power Systems Analysis

Prerequisites: SYEN 3358, or consent of the instructor. Fundamental concepts of power system analysis, transmission line parameters, system models, steady-state performance, network calculations, power flow solutions, fault studies, symmetrical components, operation and control. Three hours lecture. Three credit hours.

SYEN 5355 Mobile Multimedia Internet

Prerequisites: SYEN 3314, or consent of the instructor. The course will provide state-of-the-art perspective of the emerging landscape of Mobile Multimedia Internet. Key subject areas covered in advanced mobile Internet technologies include WLAN, GPRS, 3G, UTMS, and VoIP. Topics covered will involve architecture of the systems, protocol issues, the design and analysis of solutions for mobility, quality of service, mobile IP, and standardization efforts. Dual-listed in the UALR Graduate Catalog as SYEN 5355. Three hours lecture. Three credit hours. Students with credit for SYEN 4355 may not take SYEN 5355

SYEN 5356 Radio Frequency Techniques and Systems

Prerequisites: SYEN 2315, MATH 3322, and PHYS 2322. Analysis of electrostatic, magnetostatic, and dynamic fields using vector analysis. Coulomb's Law, electric field intensity, electric flux density, Gauss' Law. Energy and potential. Conductors, dielectrics, and capacitance. Poisson's and Laplace's equations. The steady magnetic field magnetic forces, materials, and inductance. Time-varying fields and Maxwell's equations. Boundary conditions. The uniform plane wave. Plane waves at boundaries and in dispersive media. Transmission lines and antenna fundamentals. Examples are taken from the field of wireless communications. Three hours lecture. Three credit hours.

SYEN 5358 Cellular and Wireless Communications

Prerequisite: SYEN 3354. Characteristics of mobile radio environment, multipath and fading, cellular communication concepts, channel allocation and reuse, access and scheduling techniques, system capacity, power control, diversity, coding, modulation in cellular systems, examples of digital wireless systems, wireless local area networks. Three hours lecture. Three credit hours.

SYEN 5359 Optical Networking

Prerequisites: SYEN 4355, or consent of the instructor. Fundamental concepts of networking, optical networks elements and devices, SONET, WDM, DWDM, optical control plane, MPLS and GMPLS, Free Space Optical Mesh Networks. Three hours lecture. Three credit hours.

SYEN 5362 Neural Networks and Adaptive Systems

Prerequisite(s): SYEN 3312, or consent of the instructor. Introduction to neural networks, neuron models and learning strategies, pattern recognition, multi-layer perceptron, back propagation, principle component analysis, self-organizing feature maps, neural networks for time-series forecasting. Three hours lecture. Three hours lecture. Three credit hours.

SYEN 5366 Advanced Digital Systems

Prerequisite(s): SYEN 3330 and SYEN 3310. Advanced design principles for digital systems. In particular, the students will be exposed to hardware modeling in the hardware description language: VHDL (Verilog Hardware Description language), Compilation techniques for hardware models, and logic-level synthesis and optimization techniques for combinational and sequential circuits.

SYEN 5371 Intro Continuum Mechanics

Prerequisite: MATH 2453 and MATH 3322 or their equivalent, PHYS 231 and PHYS 3300 or their equivalent. This introductory course on Continuum Mechanics will take a unified approach to train the student in the modeling of deformation in solids, fluid flow, and electrical fields. Using a first principles approach, the fundamental conservation laws of mass, charge, momentum and energy will be covered. Application to deformation in solids, heat transfer, fluid flow and electrical fields will be addressed.

SYEN 5372 Mechatronics II

Prerequisite: SYEN 4335 or equivalent. The combination of classical mechanical design, electronic analysis and design, control engineering, and computer science in the design of complex electric-mechanical-controlled systems. Commonly used sensors (potentiometers, accelerometers) and actuators (stepping motors, DC motors) are studied. Interfacing sensors and actuators to a microcomputer, discrete controller design, and real-time programming for control using the C programming language. There is a significant out-of-class project exercise associated with this course. Three hours lecture. Three credit hours.

SYEN 5375 Mechanical Vibrations

Prerequisites: SYEN 3370, or consent of the instructor. Analysis of linear multi-degree of freedom systems. Lagrangian formulation, model analysis, lumped parameter analysis of discrete systems, and continuous system vibrations. Introduction to non-linear systems. Three hours lecture. Three credit hours.

SYEN 5381 Thermal and Fluid System Design

Prerequisite: SYEN 4379 or consent of the instructor. Overview of fossil fuel, nuclear and renewable-energy power plants, the Rankine cycle, fossil fuel steam generators, fuels and combustion, pumps and turbines, the condensate-feed-water system, the circulating-water system, gas turbine and combined cycles, principles of nuclear energy, nuclear reactors and power plants, geothermal energy, solar energy, wind energy, energy from the oceans, energy storage and fuel cells, environmental aspects of power generation. Three hours lecture. Three credit hours.

SYEN 5383 Finite Element Analysis

Prerequisite: SYEN 3378, 4376, and 4340 (recommended). Basic concepts of the finite element method (FEM); stiffness matrices, spring and bar elements; truss structures, the direct stiffness method; flexure elements; method of weighted residuals; interpolation functions for general element formulation; applications in heat transfer, fluid mechanics, and solid mechanics; structural dynamics. dual-listed in the Undergraduate Catalog with SYEN 5383, Three hours lecture. Three credit hours.

SYEN 5384 Computer Methods in Fluids and Heat Transfer

Prerequisite: SYEN 4374 or equivalent. Modeling and simulation of thermal-fluid problems using commercial software, finite volume method, solution algorithms for pressure-velocity coupling, solution of systems of discretized equations, unsteady flows, uncertainty in CFD modeling, methods for dealing with complex geometries, modeling of combustion, heat transfer, and unsteady flows. Three hours lecture. Three credit hours.

SYEN 5389 Professional Engineering Licensure

Prerequisite concurrent: Registration for the Fundamentals of Engineering exam, or consent of instructor. Legal, regulatory, and ethical issues related to the practice of engineering; preparation for engineering licensure examinations. Two hours lecture. Three hours lab. Three credit hours. Cross listed as CNMG 5389. Dual-listed in the UALR Undergraduate Catalog as CNMG 4389. Students cannot receive graduate credit for SYEN 5389 if they have previously taken SYEN 4389.

SYEN 7101 Research Methodology

Prerequisite: Graduate standing. A one-credit course in a set of three, introducing students to the research methodology of doctoral level research. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the computing and engineering disciplines.

SYEN 7102 Research Tools

Prerequisite: Graduate standing. A one-credit course in a set of three, introducing students to the research tools of doctoral level research. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the computing and engineering disciplines.

SYEN 7103 Research Applications

Prerequisite: Graduate standing. A one-credit course in a set of three, introducing students to examples of doctoral level research. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the computing and engineering disciplines.

SYEN 7118 Research Ethics in Science and Engineering

The course uses a case-based method to cover various topics related to professional research ethics. It is intended for entering science and engineering graduate students in the Donaghey College of Engineering and Information Technology (DCEIT). The purpose of the course is to familiarize students with professional ethics related to research and to prepare them to deal with typical ethical situations that may occur in the course of their graduate studies and professional careers.

SYEN 7145 Integrated Comp. Lab Rotation

First semester orientation course to allow new students in the Integrated Computing doctoral program to gain exposure in several different faculty research areas. This course will aid the student in the selection of his/her doctoral research advisor. 1 credit hour. Offered on demand. Cross listed between Computer Science, Systems Engineering, and Information Science.

SYEN 7190 Systems Engineering Seminar

Prerequisites: Graduate standing and consent of the graduate advisor. Students, faculty, and invited speakers will present, discuss and exchange ideas on research topics related to Systems Engineering. One-hour session per week. Course may be repeated for credit. Graded: credit/no credit.

SYEN 7192 Graduate Seminar

Prerequisites: Graduate standing, consent of graduate coordinator. Students, faculty, and invited speakers will present discuss and exchange ideas on research topics of general interest to the graduate programs in the EIT college. One-hour session per week. Course may be repeated for credit. Graded: credit/no credit.

SYEN 7300 Independent Study

Prerequisite: Completion of core course requirements in the graduate program, and consent of the instructor. Individual research investigation by a graduate student. Topics determined in consultation with supervising faculty. Agreement must be in writing and filed with the department chairperson. The student work will be evaluated through reports or other means and documented by the faculty. A maximum of six credit hours of independent study courses, SYEN 5300 and/or SYEN 7300, can be applied toward the degree requirements. Three credit hours.

SYEN 7302 Advanced Electronics for Instrumentation

Principles of operation of analog and digital integrated circuitry, including amplifiers, A/D and D/A circuits, active filters and special function circuits as used in computers and instrumentation for measurement and control.

SYEN 7306 Real-time Embedded Systems

This course presents technologies for the design and implementation of embedded systems using Linux Operating System (OS). Such technologies include Linux, real-time Linux OS, and real-time embedded application design. Students will learn how to administer Linux OS and how to create a task-specific kernel for their own embedded application. They will learn techniques necessary for developing real-time Linux device drivers, real-time kernel space programming, and inter-process communication between real-time kernel and user space. Students will obtain hands-on experience with embedded software design through course projects. Upon completing this course, students should be able to develop their own embedded applications based on open source software resources.

SYEN 7307 Smart Materials

Prerequisite: SYEN 4371 or equivalent. This course will deal with the unique nonlinear, hysteretic response of smart materials that arise due to coupling between mechanical and thermal or electric or magnetic fields. Specifically, microstructural characteristics and constitutive modeling of shape memory alloys, ferroelectric materials and ferromagnetic materials will be covered. Use of these smart materials in sensor and actuator design will be addressed.

SYEN 7310 Economic Evaluation of Engineering Projects

Prerequisite(s): Math 1453, SYEN 3312 and 3314 or their equivalents, or consent of the instructor. Application of engineering management decision making to the life-cycle economic evaluation of engineering projects. Topics include decisions regarding investment in new or existing facilities and improvement of processes in both manufacturing and service industries. Deterministic, stochastic and multi-attribute evaluation approaches with the objectives of profit and utility maximization, as well as cost and risk reduction techniques are explored. Three hours lecture. Three credit hours.

SYEN 7311 System Design and Analysis

Prerequisite(s): Graduate standing or consent of the instructor. This course introduces the concept of a system, system requirements, system life cycle, design and integration. The basic principles of system engineering design process, modeling, and process modeling. Basic concepts of system requirements and definition of the design problem will be presented. The details of functional, physical, and operational architectures will be presented. The details of interface design, integration, and qualification of the system will be presented. Three hours lecture. Three credit hours

SYEN 7312 Systems Architecture and Design

Prerequisites: SYEN 7311 or consent of the instructor. This course introduces the process of systems architecting and the design for operational feasibility in the context of systems engineering design process. Systems architecture topics include the functional, physical, operational, and interface architectures and their correlation with the system design process, as well as graphical modeling techniques to develop these types of architectures. Examples of standardized architecture frameworks used in practice are also presented. The design for operational feasibility includes quantitative and qualitative aspects in reliability, maintainability, productibility, supportability, disposability and affordability as they relate to the system engineering life-cycle design process. Three hours lecture. Three credit hours.

SYEN 7313 Systems Management and Evaluation

Prerequisite: Graduate standing and consent of the instructor. Organized in two parts, this course presents the fundamental concepts of systems management and evaluation. Systems management methodologies, such as Systems Engineering Management Plan, Work Breakdown Structure and Risk Management Plan are presented in the first part of the course. As the design and development of any engineering system is basically an engineering project, the second part of the course introduces the steps in the engineering project management process, Quantitative project management techniques, such as Program Evaluation and Review Technique, and Critical Path Method are presented in detail. Three hours lecture. Three credit hours.

SYEN 7314 Multi-criteria Decision and Risk Analysis

Prerequisite: Graduate standing. The purpose of this course is to expose the student to a wide variety of techniques in handling Multi-criteria Decision Making (MCDM) problems. The emphasis will be placed on breadth rather than depth. The students will analyze an MCDM problem of their choice. S/he will work with the decision-maker(s) to define the problem (particularly the criteria with which s/he uses to measure 'success,') generate alternatives, capture the preference structure of the decision maker(s), and evaluate the alternatives, resulting in preferred courses of action. The student will get the opportunity to use Multi-attribute-decision-analysis and Multi-criteria-optimization computer-software.

SYEN 7315 Complex Engineered Systems

Prerequisite(s): SYEN 3312 and 3362 or their equivalents, or consent of the instructor. Introduction to complex engineered systems and the methods and tools currently under consideration in the ongoing research towards better understanding of such systems and the development of a complex engineered systems theory. Topics include concepts such as emergence, self-organization, learning and adaptation, and various quantitative and computational intelligence techniques that are considered for modeling, analysis and evaluation of such systems. System-of-systems concept is also presented. Three hours lecture. Three credit hours.

SYEN 7316 Advanced Systems Simulation

Prerequisite(s): SYEN 3312 and 3316 or equivalent, or consent of the instructor. Simulation of existing or proposed real-world systems (facilities and processes). Topics include simulation input modeling, random variant generation and stochastic models of arrival processes, statistical analysis of simulation output, variance reduction techniques, statistical design of simulation experiments and optimization of the simulation output. Monte Carlo simulation on spreadsheets, including project management, risk analysis, and reliability applications. Three hours lecture. Three credit hours.

SYEN 7317 Nanostructural Materials: Physical and Chemical Properties

Prerequisites: SYEN 3372 or PHYS 4340 or CHEM 4340 or equivalent. This course introduces students to the area of nanotechnology and the novel properties of the materials built at the nanoscale. The course will cover the main properties of nanomaterials, various methods for synthesis and characterization and the most up-to-date applications from nanoelectronics, advanced materials, bio-medicine, etc. The course is designed for graduate students with a background in chemistry, physics, and engineering.

SYEN 7318 Micro- and Nano-Fabrication

Prerequisites: Consent of instructor. This course will introduce some of the important micro- and nano-fabrication techniques that are mostly used in areas of microelectronics and nanotechnology. Some of the topics that will be covered include diffusion of impurities, thermal oxidation, ion implantation, optical lithography, thin film deposition, etching, nanolithography, nano-imprinting, growth of nanorods and nanosprings by glancing angle deposition, and growth of carbon nanotubes. During the course, students will become familiar with some of the basic experiments including thin film and glancing angle depositions, etching, and film characterization techniques. The course is intended for graduate students from science and engineering majors.

SYEN 7320 Linear Systems Theory

Prerequisites: SYEN 5320 or consent of instructor. This course covers the mathematical basis of linear state-space systems theory. Topics include: linear time-varying and time-invariant system representation, solutions to LTV and LTI systems, stability analysis, controllability and state feedback, observability and output feedback, minimal realizations, MIMO systems, and LQR/LQG optimal control. Three hours lecture. Three credit hours.

SYEN 7331 Transducers and Real Time Control

Prerequisites: SYEN 4335 or equivalent, SYEN 7302, SYEN 1302 or equivalent. Applications of computer techniques for data acquisition, analysis, and real-time control; use of analog-to-digital, digital-to-analog, digital I/O for measurement; C computer language for experiment control; use of standard transduction elements for physical measurements such as position, velocity, acceleration, and force.

SYEN 7332 Advanced Operating Systems Design

Prerequisites: SYEN 5332 or consent of instructor. Design principles of modern schedulers, multi-processor systems, protection and security components, OS tools, and IP stacks. The graduate student will do several projects through the software engineering cycles of requirement analysis, high level design (HLD), detailed design (DD), implementation, unit testing, and system testing. The projects include but not limited to the Linus scheduler, signal handler, shared memory control, virtual memory management, and case studies of device drivers. Three hours lecture. Three credit hours.

SYEN 7342 Network and Combinatorial Optimization

Prerequisites: SYEN 5342 or consent of the instructor. An in-depth study of combinatorial programming and network flow optimization. Emphasis on discrete optimization and specialized solution techniques that are efficient way to solve mixed-integer programming problems. Techniques include minimum cost flow, networks with gain, multi-commodity flow networks, networks with side constraints and Lagrangian relaxation. Computational complexity is also discussed. Three hours lecture. Three credit hours.

SYEN 7355 Statistical Signal Processing

Prerequisites: Math 3312 and SYEN 3354, or consent of the instructor. The main coding theory problem. Introduction to finite fields. Vector space over finite fields. Structures of linear block codes. Encoding and decoding of linear codes. Dual codes. Non-binary Hamming codes. Perfect codes. Reed-Muller codes. Cyclic codes. Weight enumerators. Low density parity check codes. Convolutional codes. Three hours lecture. Three credit hours.

SYEN 7357 Advanced Antennas for Wireless Systems

Prerequisite: SYEN 3356 or consent of the instructor. The course introduces the fundamental principles of antenna theory and applies them to particular antennas for wireless communications systems and other advanced antenna systems. In addition, the course develops appreciation for research issues of antennas for mobile wireless and advanced communications systems. The course is useful in the areas of mobile communication, signal processing, antenna theory, and smart antennas. It provides the current state of antenna array research and describes how an antenna array may be used to help meet the ever-growing demand of increased channel capacity for wireless mobile communications services. Three hours lecture. Three credit hours.

SYEN 7374 Elasticity

Prerequisites: SYEN 4376 or ASCI 5320 or consent of the instructor. Fundamental concepts of stress and strain. Linear theory: boundary value problems of elasticity including plane stress, plane strain, and torsion, elementary variation theory of elasticity, Three hours lecture. Three credit hours.

SYEN 7376 Fracture Mechanics

Prerequisites: SYEN 7374, or consent of the instructor. Failure of manufactured products in service and implications for design; energy release rates, toughness, and evaluation of experimental tests; fracture mechanisms in different material systems; fracture toughness testing; damage tolerance; design studies. Three hours lecture. Three credit hours.

SYEN 7385 Systems Engineering Graduate Project

Prerequisites: Graduate standing and consent of the student's graduate advisor. Students, under faculty supervision, will conduct directed research on a particular problem or area of Systems Analysis and Applications / Electrical and Computer Engineering / Telecommunication and Signal Processing / Mechanical Engineering in some depth, and will produce an appropriate project report based on his/her investigations.

SYEN 7399 Special Topics in Systems Engineering

Prerequisites: Graduate standing and consent of the instructor. Advanced topics in the area of Systems Analysis and Applications / Electrical and Computer Engineering / Telecommunication and Signal Processing / Mechanical Engineering. Three hours lecture. Three credit hours.

SYEN 8100-8600 Systems Engineering Master's Thesis

Prerequisites: Graduate standing and consent of the thesis advisor. Scholarly investigation of a selected problem in the area of Systems Analysis and Applications / Electrical and Computer Engineering / Telecommunication and Signal Processing / Mechanical Engineering culminating in a written, orally defended thesis. Maximum of six hours may be applied toward MS degree. Variable credit of one to six hours.

SYEN 9100-9900 Doctoral Research/Dissertation

Prerequisites: Consent of Advisor. One to nine credit hours to be determined at the time of registration. Cross listed between Computer Science, Systems Engineering, and Information Science.

Department of Information Science

EIT Building, Room 550

(501) 569-8951

Graduate Certificate in Technology Innovation

The Graduate Certificate in Technology Innovation is a distinctive program intended for working professionals and post-baccalaureate students who are interested in the development, evaluation and implementation of original ideas for existing businesses and new enterprises. The curriculum is designed to teach a specific set of skills necessary to effectively innovate new products and services. Students will learn how to: choose problems that are ripe for technological solutions, create numerous ideas for solving these problems, effectively evaluate these ideas so that only the most promising ones go forward, assemble a business plan, persuade influential people to support their proposals and successfully implement their solutions in new or existing businesses. The certificate is a joint program between the Donaghey College of Engineering and Information Technology (EIT) and the College of Business, allowing students to get a broad perspective on developing ground-breaking solutions to complex problems.

Admission Requirements

A bachelor's degree from an accredited institution of higher education. Candidates who have a background in engineering, science, mathematics, computer science, information science, business or any other areas of technology or who have professional experience in using technology will be the most prepared to enter and successfully complete the certificate program. The GMAT or GRE exam is not required.

Program Requirements

The Graduate Certificate in Technology Innovation requires 18 credit hours for completion.

Required Courses:

TINV 5301 Strategies for Innovation

TINV 5303 Applied Innovation Project

MGMT 5383 Issues in Entrepreneurship

MGMT 7311 Entrepreneurship & Small Enterprise Management

In addition, students must select two graduate courses in their field of interest, as approved by the coordinator.

Graduation Requirements

Cumulative graduate GPA of at least 3.0 on an approved program of study as outlined above.

Courses in Technology Innovation

TINV 5301 Strategies for Innovation

Prerequisites: Junior or senior standing (TINV 4301) or graduate standing (TINV 5301). This course examines strategies for developing innovative products. Topics include how to choose promising problems that are ripe for innovative solutions, how to generate multiple ideas for solving these problems, how to select the most promising solutions and how to sell your solution to potential partners, managers and investors. This is a hands-on project-based course.

TINV 5303 Applied Innovation Project

Prerequisites: TINV 4301 / 5301, MGMT 4361 / 5361 and MGMT 4383/5383. The purpose of this course is to give students experience in developing a prototype product in their chosen technological inventions and introduces students to commonly used design tools. It is open to students in any field of science and technology. This is primarily a laboratory class that requires a substantial time commitment. In addition to the activities listed above, students enrolled in TINV 5303 will need to prepare a Prototype User Evaluation Report that documents how potential users of the innovation evaluate the prototype.

COLLEGE OF SOCIAL SCIENCES & COMMUNICATION

Ross Hall, Room 120, (501) 569-3244, fax (501) 569-3592, ualr.edu/cssc/

Professor Lisa Bond-Maupin, Dean

Associate Professor Andrew Drummond, Interim Associate Dean for Teaching and Interdisciplinary Support

Professor Sarah Beth Estes, Interim Associate Dean for Research and Community Engagement

The College of Social Sciences and Communication includes 8 units offering degrees at the baccalaureate, master's, and doctoral levels, including the School of Mass Communication and the departments of Speech Communication, Rhetoric and Writing, Criminal Justice, Psychology, Sociology and Anthropology, Political Science, and the Institute of Government. The college also supports several interdisciplinary research centers and institutes, including University Television, KLRE/KUAR public radio, the Survey Research Center, the Center for Nonprofit Organizations, and the Center for Public Collaboration.

Program	Certificate or Degree Program	Department/School
Applied Communication Studies	Master's (M.A.)	Speech Communication
Conflict Mediation	Certificate	Institute of Government
Criminal Justice	Master's (M.A.)	Criminal Justice
Criminal Justice	Master's (M.S.)	Criminal Justice (Online)
Criminal Justice	Doctorate (Ph.D.)	Criminal Justice
Mass Communications	Master's (M.A.)	Mass Communication
Nonprofit Management	Certificate	Institute of Government
Professional & Technical Writing	Master's (M.A.)	Rhetoric and Writing
Public Administration	Master's (M.P.)	Public Administration
Strategic Communication	Certificate	Mass Communication

Speech Communication Building, Room 237

(501) 569-3158

Master of Arts in Applied Communication Studies

The mission of the Department of Speech Communication is to foster the co-creation of better social worlds through positive communication. Our Master of Arts in Applied Communication Studies provides graduate students with a solid theoretical and practical understanding of how communication practices operate in everyday life. Students learn to develop positive communicative skills that are necessary to function effectively in all areas of today's business and professional world.

The objective of the program is to guide students in the application of communication theory to a variety of interpersonal, institutional, public and organizational contexts. For more information, please visit the website, ualr.edu/speechcomm/index.php/home/graduate-program/.

Our curriculum fosters a strong knowledge base grounded in communication theory and its various applications, such as management, consulting, human resources, training, organization development, relational communication, health care, education, and public relations. An undergraduate background in speech is helpful, but not required.

Tracks

The program is divided into two tracks with classes offered online, in the evenings, and in a unique weekend format. These tracks are designed to provide options for students with differing goals. Each track maintains an applied focus on six pillars of communication: Ethics, Renewal, Excellence, Culture, Experiential Learning, & Diffusion. Students are expected to complete their course work, comprehensive exams, and a final project in two years. Opportunities for students interested in preparation for a doctorate after completing their master's are available as well.

The Professional Communication Track is geared toward students seeking to enhance their communication skills and improve their abilities to positively influence internal and external communication in organizations. First year core courses in theory and research lay a foundation for understanding and improving communication processes in a variety of settings.

The Health Communication Track includes the same first year core courses as the Professional Communication track, but in the second year, students venture into electives offered jointly by UALR and UAMS to prepare health professionals to meet the needs of current jobs in health-related fields.

We also offer a unique, combined program with the UAMS Fay W. Boozman College of Public Health. This 60 hour program provides training for students with an interest in serving communication roles in the public health arena. More information about the admission process and advising for this program can be found at ualr.edu/speechcomm/index.php/home/graduate-program.

Students interested in pursuing doctoral work may complete either of the above tracks. We encourage pre-doctoral students to take an additional research methods course and to revise and submit major course papers to professional conferences and journals. Students with interests in doctoral work thus gain the benefit of exposure to applied communication research and theory as well as the personal attention of faculty devoted to preparing them for the next step in their education.

Admission Requirements (for both tracks)

- Baccalaureate degree from an accredited institution, with a cumulative grade point average of at least 2.75 (4.0 scale) or 3.0 in the last 60 hours
- An official transcript sent by the degree granting university in a sealed envelope sent to the UALR Graduate School.
- Two writing samples from previous course work or professional writing samples approved by the graduate coordinator. Email these documents to the graduate coordinator.
- Completion of 18 undergraduate speech communication hours or Speech 7390 (a preparatory three-hour summer course) with a GPA of 3.0 or higher
- A list of three academic and/or professional references with contact information

Admission materials for the fall of each year are due in the Graduate School by April 1, but applications are accepted until all slots are filled. Contact the program coordinator, Dr. Gerald Driskill, at (501) 569-3158 if you want to be considered for early or late admission.

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the program coordinator for information. Application forms are available through the graduate school. Deadline for application is March 15 or until qualified students are found for available positions.

Program Requirements

Professional Communication Track

The program is offered in the evening and weekends. Course work can be completed in two calendar years. Professional Track students are required to complete 33 credit hours, which includes 24 core hours (8 courses) plus 6 elective hours (2 courses) and a final project (3 hours). The 24-hour core (8 courses) begins at the start of the Fall semester and must be completed in sequence. Two courses (6 hours) of electives are offered during Summer semesters, but students seeking to take additional hours during the Fall or Spring may elect to take electives offered during the day, online, and/or during special weekend (5 week) courses. The final project (Speech 8301 Master's Research Paper) grows from first year course work, and students are guided to complete this project during their second year. Students may also select a final project growing from an internship (Speech 8300 Internship or SPCH 8304/8604 Cooperative Education).

Example 2-year Plan (33 hours)

Fall - First Year SPCH 7301 Human Communication Theory SPCH 7321 Organizational Communication Theory	Fall - Second Year SPCH 7330 Communicating Change SPCH 7302 Interpersonal Communication
Spring - First Year SPCH 7322 Organizational Communication Culture SPCH 7350 Crisis Communication	Spring - Second Year SPCH 8310 Seminar in Applied Communication Studies SPCH 7323 Conflict
Summer - First Year 3-Hour Elective: e.g., SPCH 5312 Intercultural Communication ;SPCH 5313 Topics in Communication; SPCH 5323 Family Communications; 7352 Org. Communication Training	Summer - Second Year 3 Hour Elective: e.g., SPCH 5312 Intercultural Communication; SPCH 5313 Topics in Communication; SPCH 5323 Family Communication; SPCH 7352 Org. Communication Training

Health Communication Track

Health communication is a field of study that uses communication theory to prepare health professionals to meet the needs of current jobs in health-related fields. This track is offered jointly by UALR and UAMS. This track requires students to complete 15 credit hours of core courses and 15 credit hours of electives plus a 3-hour master's project for a total of 33 hours.

Core Courses

SPCH 7321 Organizational Communication (Fall)
 SPCH 7301 Communication Theory (Fall)
 SPCH 7322 Organizational Culture and Communication Analysis (Spring)
 SPCH 7350 Crisis Communication (Spring)
 SPCH 7302 Health Communications/Interpersonal Communication
 or PBHL 5783 Health Comm (UAMS: Spring)

Elective Courses

PBHL 5003 Introduction to Public Health* (UAMS Fall, Summer)
 PBHL 5123 Health Care Systems* (UAMS: Fall/Spring)
 PBHL 5133 Intro to Health Behavior and Health Education* (UAMS fall, Summer)
 PBHL 5653 Theories of Health Behavior and Health Education (UAMS Fall)
 SPCH 7302 Interpers'l communication
 or PBHL 5783 Health and Mass Communication (UAMS: Spring)
 PBHL 7023 Health Administration (UAMS)
 SPCH 5313 (Topic) Health Communication and Technology
 SPCH 7320 Communication Change and Information Diffusion (Fall)
 PBHL 5143 Management of Health Care

*These two courses are best taken before others in the Public Health area.

Example Two-Year Plan

<p>Fall - First Year</p> <p>SPCH 7301 Human Communication Theory SPCH 7321 Organizational Communication Theory</p>	<p>Fall - Second Year</p> <p>SPCH 7320 Communication Change and Information Diffusion (Fall) SPCH 7302 Interpers'l Communication or PBHL 5783 Health Comm.</p>
<p>Spring - First Year</p> <p>PBHL 5003 Introduction to Public health SPCH 7350 Crisis Communication or PBHL 5123 Health Care Systems Communication</p>	<p>Spring - Second Year</p> <p>PBHL 5143 Management of Health Care Organization or PBHL 5783 Health and Mass Communication PBHL 5783 Health Comm.</p>
<p>Summer - Second Year</p> <p>Health Communication and Technology</p>	<p>or SPCH 7322 Organizational Culture and Communication Analysis (Spring)</p>

A final project is also required. The student and his/her advisor should determine the term during which this requirement is fulfilled.

Graduation Requirements (for both tracks)

- Cumulative GPA of at least 3.0 on an approved program of study
- Successful completion and defense of internship, master's paper, or thesis
- Successful completion of the comprehensive exam

Courses in Applied Communication Studies

SPCH 5310 Investigations into Communication

Prerequisite: SPCH 1300, 4300. This course addresses the applied role of communication research methods in a variety of contemporary organizations. Topics include the research process, both quantitative and qualitative research approaches, as well as questions of research ethics. The focus is on identifying the practical applications of research methods for organizational members.

SPCH 5311 Organizational Communication

Prerequisite: SPCH 1300, or consent of the instructor. This course examines organizational communication theories, communicative implications of historical and modern management theories, as well as special interest topics. Major topics include cultural and critical approaches to organizational communication, classical management and human relations theory, and communication effectiveness. Special topics may include teams in organizations, diversity, organizational politics, leadership, and change. The focus is on applying organizational communication theories and concepts to understand others better and to control one's own communication in organizations.

SPCH 5312 Intercultural Communication

Prerequisite: SPCH 1300. This course examines culture as it influences human interaction in a wide range of contexts, including work, medical, interpersonal, and political. Topics include culture shock, language, nonverbal, intercultural conflict, and culture and the media. The focus is on using major intercultural communication theories and concepts as well as in-class activities to develop a heightened awareness of intercultural issues and intercultural communication competence.

SPCH 5313 Seminar: Topics in Communication

Prerequisite: SPCH 1300. This course investigates timely communication theories, skills, and practices. Topics may be selected from a variety of theoretical or practical perspectives. The focus is on an in-depth treatment of a content area not typically represented in other courses in the major. This course may be repeated for credit.

SPCH 5323 Family Communication

This course examines communication networks within families that support or inhibit cohesion or change. Topics include: family systems, communication patterns, self-disclosure, family themes, rules, relational stages, conflict styles, power, and decision-making. Students analyze applied communication research and theory and make application to cases.

SPCH 5324 Organizational Communication II

Prerequisite: SPCH 5311. This seminar addresses special topics in organizational communication. Course topics may include organizational identification, risk and issue management, organizational change, or critical approaches to organizational communication. The focus is giving students an in-depth understanding of a specialized aspect of organizational communication.

SPCH 5350 Effective Crisis Communication

This course investigates and analyzes instances of effective and ineffective crisis communication. Students will examine the internal organizational processes and the larger environment within which various organizations exist, focusing on issues such as stakeholders, legal environments, and the larger social and cultural contexts.

SPCH 5357 Communicating with Difference

This course explores communication and difference in such areas as race and ethnicity, social class, age, sexual orientation and disability. Through applying communication theories and ideas to our experiences in each of the targeted areas, we can emerge with tools to manage communication across lines of difference and create more positive social worlds. Dual-listed in the *UALR Undergraduate Catalog* as SPCH 4357. Three credit hours.

SPCH 7300 Interpersonal Communication Concepts

Prerequisites: graduate standing, consent of instructor. (For on-IOC graduate students.) Concepts of human interaction as basis for developing interpersonal communication skills, framework for personal growth in one-to-one interaction, small group dynamics, leadership roles, and other interpersonal relationships.

SPCH 7301 Human Communication Theory

Co-requisite: SPCH 7321. Basic theoretical approaches to human communication; includes symbolic interactionism, systems, rules, linguistics, relational, rhetorical theories. Offered in Fall.

SPCH 7302 Interpersonal Communication: Theory and Context

Co-requisite: SPCH 7332. Influence of contexts on various theories of interpersonal communication; each theory is evaluated, placed in a relational context, considered for its applications to personal and professional interaction. Offered in Fall.

SPCH 7310 Topics in Interpersonal Communication

Topics vary; chosen for interest, needs of current class; may include in-depth study of topics from earlier courses. Offered on demand.

SPCH 7311 Small Group Communication

Co-requisite: SPCH 7351. Systems study of small group formation, maintenance, performance; special attention to problem solving in groups. Offered in Spring.

SPCH 7312 Intercultural Communication

Intercultural factors influencing human interaction; how cultures, subcultures interact verbally, non-verbally; how communication patterns are inherently culturally determined. Offered in Summer.

SPCH 7320 Topics in Organizational Communication

Topics vary; chosen for interest, needs of current class; may include in-depth study of topics from earlier courses. Offered on demand.

SPCH 7321 Organizational Communication Theory

Co-requisite: SPCH 7301. Theoretic overview of organizational communication, includes communication flow, networks, organizational relationships, groups, conflict, language. Offered in Fall.

SPCH 7322 Organizational Communication Culture Analysis

This course explores the concept of organizational culture and its relationship to effective and ineffective organizational communication. Students develop an understanding of a model for analyzing organizational culture and communication and apply this model to a case analysis.

SPCH 7323 Conflict Analysis and Intervention

An introduction to conflict dynamics with an emphasis on communication intervention skills; covers different frames for analyzing conflict analysis tools, opportunities for conflict self- assessment, and skill-building in difficult conversations.

SPCH 7324 Negotiation

Examination of the nature of conflict and presentation of theories and techniques of negotiation as a method of resolving or managing conflict. Students will analyze cases of negotiation at many levels such as buying and selling, contracts, group decision making, plea bargaining, international treaties, and organizational creation. Emphasis is on solving problems through negotiation. Consideration of the role of third parties. Current events are used for relevant examples.

SPCH 7330 Communicating Change and Information Diffusion

This course provides an understanding of diffusion theory, which seeks to explain the process through which new ideas (innovations) spread over time via communication channels among the members of a social system. Students will apply diffusion theory to corporate, public health, social change, and policy contexts.

SPCH 7332 Communication Assessment and Consulting

Co-requisite: SPCH 7302. Methods used to assess communication behavior in organizations, prepare intervention techniques, evaluate communication effectiveness. Offered in Spring.

SPCH 7341 Organizational Communication Applications

Prerequisite: 15 program hours. Co-requisite: SPCH 7302. Role of applied behavioral research methods in developing effective communication in organizations; focus on use of organization development theories to change the way people in organizations communicate. Offered in Fall.

SPCH 7350 Seminar in Effective Crisis Communication

This course investigates and analyzes instances of effective and ineffective crisis communication. Students will examine the internal organizational processes and the larger environment within which various organizations exist, focusing on issues such as stakeholders, legal environments, and the larger social and cultural contexts. Students will apply concepts to case analysis and development of crisis communication plans for actual organizations.

SPCH 7351 Managerial Communication

Co-requisite: SPCH 7311. Communication skills needed by supervisors, managers; focus on conflict management, interview skills (selection, performance appraisal, discipline, information gathering); includes theory, research, applied projects. Offered in Spring.

SPCH 7352 Organizational Communication Training

Development, delivery of a training project; student prepares and presents an intervention for a specific organizational communication problem. Offered in Summer.

SPCH 7390 Introduction to Graduate Study in Speech Communication

Prerequisite: program admission or consent of instructor. (Prerequisite course for entering students with fewer than 18 undergraduate speech hours; does not count toward degree requirements.) Speech communication theories, terminology; program writing, speaking responsibilities; emphasis on research skills necessary for the field. Offered in summer.

SPCH 8300/8600 Graduate Internship

Urban-related practical job experience; students apply theoretical knowledge, develop interpersonal and organizational communication skills, meet regularly to share experiences, write a paper related to experiences.

SPCH 8301/8601 Master's Research Paper

Students apply theoretical knowledge to an action research project, dealing with the identification of a need in an organization and the implementation and evaluation of an intervention to meet that need.

SPCH 8310 Seminar in Applied Communication Studies

This capstone seminar draws on various applied communication theories to engage students in reflection on two years of study in the program. Students develop and present their final project proposal for their MA in Applied Communication Studies. A final portfolio will be presented before faculty and students. Only students who are in the final semester of this program are allowed to take this course (SPCH 7301; SPCH 7321; plus 12 hours grad level SPCH courses).

SPCH 8304/8604 Cooperative Education in Interpersonal and Organizational Communication

Prerequisites: graduate standing and approval of assignment advisor. Job experience in an organization approved by the Speech Communication Department and the Cooperative Education Office. Students gain job experience through application of relevant theories, develop interpersonal and organizational communication skills, meet regularly with their faculty member, and complete a major paper reflecting on their experiences in light of communication theory. This course requires a minimum of 200 semester work hours for 3 credit hours or 400 semester work hours for 6 credit hours.

SPCH 8602 Master's Thesis

Prerequisite: successful completion of written comprehensive examinations. Preparation of an appropriate original investigation demonstrating knowledge and methods of scholarship.

CONFLICT MEDIATION GRADUATE CERTIFICATE

Ross Hall, Room 120

(501) 569-3244

ualr.edu/iog/

Graduate Certificate in Conflict Mediation

Conflict management and mediation skills are important in any profession that involves working with people. Educators, social workers, human resource professionals, health care professionals, and leaders in public, private, nonprofit, and religious organizations are among those whose responsibilities include managing conflict.

The field of conflict mediation is expanding nationwide in business, government, and education. Conflict mediators assist individuals and groups in reaching agreements on matters ranging from employee grievances to child custody. Many courts are beginning to refer cases to mediation before they are litigated.

Whether you are interested in a career in conflict mediation or you feel that conflict mediation skills would enhance your effectiveness in your current career, this graduate certificate may be for you. Courses are scheduled on weekends for the convenience of working professionals and are taught by UALR faculty and by national experts in the field. Students can complete the program in a year or can go at their own pace. Electives allow students to tailor the program to various interest areas. The program offers numerous and varied opportunities for developing skills in role-play situations with individualized feedback. For more information, please visit our website, ualr.edu/iog/publiccollaboration/cpc-programsservices/graduate-certificate.

Admission Requirements

Successful applicants will hold a bachelor's degree with a cumulative grade point average of 3.0 from an accredited college or university, be recommended for admission by a representative of the Graduate Certificate in Conflict Mediation; and be admitted by the UALR Graduate School.

The graduate certificate in Conflict Mediation is interdisciplinary. Certain courses may be approved as electives for other graduate programs; however, advance approval must be obtained from the other program's advisor.

If you are a student in the graduate certificate in Conflict Mediation program and you also wish to enter another graduate program, you must go through the other program's normal admissions process in addition to be admitted to the Graduate School.

Program Requirements

The graduate certificate in Conflict Mediation requires 18 credit hours for completion- 3 required courses (9 credit hours) plus 3 electives (9 credit hours).

Required Courses(9 hours):

PADM 7341 Managing Public Disputes
SPCH 7323 Conflict Analysis and Intervention
TCED 7341 Conflict Management in the Schools
SPCH 7324 Negotiation
PSYC 7330 Designing ADR Systems for Organizations
LAW 6304 Mediation Seminar
SPCH 7350 Effective Crisis Communication

Electives (9 hours):

SPCH 5313 Facilitating Multi-Party Conflicts
SOWK 8320 Family Mediation

Practicum (SPCH 8300)

Students who wish to engage in a practicum should submit a proposal to the Conflict Mediation program coordinator. The practicum must provide experience and assignments related to conflict mediation and make it possible to assign a grade to the experience. The experience and assignments should be equivalent to a three credit hour graduate course.

Financial Aid

Students in the Conflict Mediation certificate program who are enrolled in the Mediation seminar (LAW 6329) should contact the program coordinator if they are receiving federal financial aid. A form to verify their enrollment must be filled out and sent to the Office of Financial Aid in order to ensure their funds are correctly applied.

Graduation Requirements

Cumulative graduate GPA of at least 3.0 on an approved program of study as outlined above.

Ross Hall, Room 517

(501) 569-3195

Master of Arts and Master of Science

The Criminal Justice Department offers two master's degrees in criminal justice, both a Master of Arts and a Master of Science.

Master of Arts in Criminal Justice

The Master of Arts in Criminal Justice program prepares graduates for positions of responsibility in the criminal justice system and related areas, facilitates the professional and intellectual development of in-service students, and provides foundation work for those planning careers in research or teaching. The curriculum provides a distinctive melding of professionally structured knowledge and the ethical imperatives of criminal justice in a constitutional democracy. Attention is centered on:

Understanding the broadest nature of scientific inquiry and dissemination of social science knowledge pertaining to criminal justice;

The ability to organize literature, think critically, and draw conclusions from conducting independent research into criminal justice topics. Understanding of police, courts, corrections, prosecution agencies, and the criminal - legal profession as integral components of the criminal justice system;

Knowledge of research and research methodologies needed to understand and improve criminal justice and criminology; and

Understanding of criminological theories for studying issues of crime and behavior.

For more information, visit the program's website at ualr.edu/criminaljustice/index.php/home/programs/ma.

Admission Requirements

Students should submit all undergraduate transcripts and other materials to the UALR Graduate School. Do not send materials to the Department of Criminal Justice.

Admissions decisions are made based on a total file review. Expectations of those applying include the following.

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale)
- Score of at least 400 on the Miller Analogies Test or 300 on the combined verbal and analytical sections of the Graduate Record Examination
- An undergraduate statistics and undergraduate research methods course
- An oral interview with the program coordinator may be required

Conditional Admission

Students not meeting the standardized test score requirements may be admitted conditionally at the discretion of the program coordinator. Students admitted conditionally must earn grades of at least B in the first 12 hours and may not receive a grade of (I) incomplete within the first 12 hours of the program.

Program Requirements

Two options are available for graduation from the MACJ program: thesis and portfolio. Both options require 36 hours to successfully complete the program including CRJU 8301 Thesis / Portfolio Prep and 8303 Thesis / Portfolio. Both thesis and portfolios require an oral defense. Before enrolling in graduate classes, students must consult with the program coordinator to develop a program of study.

The thesis requires research and analysis of a topic in the field. It must demonstrate advanced scholarship, appropriate design, and skills of written expression. A total of 6 hours of CRJU 8303 and CRJU 8301 must be completed.

The portfolio requires a comprehensive literature review, critique of the literature, and direction for future study and policy on the topic. A total of six hours of CRJU 8303 and CRJU 8301 must be completed. Electives may be taken from criminal justice or from education, gerontology, history, applied communication studies, journalism, psychology, public administration, social work, and technical and professional writing.

Courses with grades of B or greater may not be repeated; grades below C are not accepted in the minimum hours requirement; and courses cannot be dropped from the study plan because of low grades. Students may receive a maximum of two Cs in the program of study. Upon receiving a third C, the student will be removed from the program.

Suggested Degree Plan

Fall First Year	Fall Second Year
CRJU 7301 Pro-seminar	CRJU 7370 Juvenile Delinquency Problems
CRJU 7300 Criminological Theory	Elective 1
CRJU 7392 Research Methods	Elective 2
Spring First Year	Spring Second Year
CRJU 7391 Social Statistics	CRJU 7340 Correctional Administration
CRJU 7305 Seminar in Criminal Law	CRJU 8301 Portfolio / Thesis Preparation
CRJU 7322 Foundations of Policing	CRJU 8303 Thesis / Portfolio

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the program coordinator for information.

Graduation Requirements

Cumulative GPA of at least 3.0 on an approved program of study as outlined above.

Successfully complete a written thesis with oral defense or portfolio with oral defense.

Students who do not attain a 3.0 GPA within the required hours may complete no more than six additional hours to achieve the GPA.

Master of Science in Criminal Justice

The Master of Science in Criminal Justice (MSCJ) is designed to develop the essential knowledge and skills needed to become an effective practitioner or supervisor within the criminal justice system. The MSCJ program is designed for, but not limited to, people currently working in the criminal justice system or closely related fields. The MSCJ program is delivered entirely online.

The MSCJ provides students with advanced academic training, special expertise in advanced issues within the criminal justice system, supervisory and administrative proficiency, and the methodological and statistical skills necessary to understand research and new developments in criminal justice. The program increases abilities in critical thinking, problem solving, oral and written communication, and understanding of the criminal justice system in the U.S. It presents an integrated program of study that is academically rigorous and practically oriented. It is appropriate for students who:

- are currently working in the criminal justice system and seeking to move into higher supervisory roles
- are currently working in the criminal justice system and seeking to broaden their skills by obtaining job-related knowledge and expertise
- are seeking to broaden their skills and knowledge in order to secure employment in the criminal justice system

Students will be guided through an intense, supervised course of study of the history and current issues in criminal justice, criminal justice policies and practices, and ways to improve those practices. This program also requires work in qualitative and quantitative methodologies, statistical analysis, and research design sufficient to make graduates

proficient in consuming and understanding research that may be needed in management positions. All course work builds toward a policy thesis, which demonstrates an understanding of a criminal justice issue and the policy implications of that issue. Graduates of this program will be expected to continue their work in the criminal justice field, be prepared to handle increasing responsibilities in their jobs, and gain promotions to the highest levels of their organizations. The program is offered fully online and is built around 8 week courses each term throughout the year.

For more information, visit the program's website at ualr.edu/criminaljustice/.

Admission Requirements

Application requirements for admission to the MSCJ program are as follows. Students should submit all undergraduate transcripts and other materials to the UALR Graduate School. Do not send materials to the Department of Criminal Justice.

- A baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale)
- Applicants are required to score at least 145 on the verbal portion, 140 on the quantitative portion, and 3.0 on the writing portion of the GRE; or score at least 400 on the Miller Analogies Test.

Conditional Admission

Conditional admission is possible for low test scores but not low GPAs. Conditional admission will be determined by the MSCJ Graduate Coordinator in consultation with the Graduate School.

Students not meeting the standardized test score requirements may be admitted conditionally at the discretion of the program coordinator. Students admitted conditionally must earn grades of at least B in the first 12 hours and may not receive a grade of (I) incomplete within the first 12 hours of the program.

MSCJ Admissions Process

- Complete online application and submit other Graduate School requirements. An application fee of \$40 will be required.
- Mail official transcripts from undergraduate institution(s) and copies of MAT or GRE score.

University of Arkansas at Little Rock
Graduate School
2801 S. University Avenue
Little Rock, AR 72204-1099

International Students

International students may apply for the MSCJ program. They should follow the steps at <http://ualr.edu/gradschool/home/international-prospects>.

Program Requirements

To graduate, students must complete a capstone. Required courses establish the foundation of knowledge in criminal justice and include information all students should possess when they graduate. Students can expect to take a maximum of 3 hours in each 8 week term. The program will typically take 2 years to complete if the student attends each of the 6 terms during the year. The MSCJ program is delivered entirely online. Lectures may take the form of material presented by the professor (text, Power Point, etc.), guided lectures with voice-over visual material, or video presentations students download and watch. Students will be required to participate in courses through presentations and discussions on the class discussion list. Students will also be required to complete writing assignments associated with the course, ranging from short concept papers to more extensive term papers.

The capstone project requires a comprehensive literature review, critique of the literature, and direction for future study and policy on the topic.

Electives may be taken from criminal justice or from education, gerontology, history, applied communication studies, journalism, psychology, public administration, social work, and professional and technical writing.

Courses with grades of B or greater may not be repeated; grades below C are not accepted towards graduation and courses cannot be dropped from the study plan because of low grades. Conditional students must earn grades of at least B in the first 12 hours and may not receive a grade of incomplete (I).

Required Core Courses (18 hours)

CRJU 7301 Proseminar
CRJU 7321 Criminal Justice Organizations and Management
CRJU 7320 Applied Research and Analysis
CRJU 7305 Criminal Law
CRJU 7304 Criminal Justice Policy
CRJU 7330 Capstone Project
Electives
CRJU 7303 Criminal Justice Systems
CRJU 7322 Foundations of Policing
CRJU 7323 Ethics in Criminal Justice
CRJU 7340 Corrections Administration
CRJU 7370 Juvenile Delinquency Problems
CRJU 7390 Independent Study
CRJU 7393 Special Topics (May be repeated for credit)

Degree Plan

Please consult with the CRJU-MS graduate coordinator.

Doctor of Philosophy in Criminal Justice

Students in the Ph.D. program in Criminal Justice are guided through an intense, supervised course of study of history, current issues, and research related to criminology and criminal justice. This program requires extensive work in qualitative and quantitative methods, statistical analysis, and research design. The program provides students an understanding of the value of research. Students will be trained to be prolific writers and skilled at obtaining grants. Course work and mentoring will provide students with other aspects of professional development, including teaching and pedagogy, services to the discipline, and program administration.

The curriculum consists of 57 graduate semester hours beyond the master's degree. These hours are divided into five sections:

- research design and statistical analysis,
- crime and justice,
- electives and specialization,
- research practicum, and
- dissertation.

The courses combine to produce students who have mastered the theories of crime and justice and who have acquired research and statistical techniques sufficient for high levels of analysis and evaluation. All courses will be taught in the classroom or in consultation with individual faculty; none will be taught online.

Admission Requirements

Admissions decisions into the doctoral program will be made based on a total file review. Application must meet all admissions standards of the UALR Graduate School. Students will only be admitted in the fall semester each year.

The following criteria are recommended for successful candidates for admissions:

- Score at least 300 on the combined verbal and quantitative portions of the new Graduate Record Exam (GRE) or 1000 on the old test, and at least 4 on the written portion of the GRE.
- Have a cumulative GPA in their master's program of at least 3.5.
- International students must take the TOEFL exam and score 550 on the paper-based test, 213 on the computer-based version or a 79 on the Internet-based version.
- Applicants must submit official copies of their transcripts and GRE scores to the UALR Graduate School.
- Applicants must also submit a statement of purpose and a career development plan. The statement of purpose

should consist of two parts: a statement of what the applicant sees as the role of Ph.D. in criminal justice, and a statement of the applicant's understanding of the role of research in criminal justice. The career development plan should describe in detail what the applicant plans to do following completion of the Ph.D. This statement must be more than "I want to work as a teacher at a university," and should include a potential research and publication agenda.

- Applicants will also be required to submit a writing sample to be considered by the admissions committee.
- Two professional letters of recommendation (one of which must come from a graduate-level teacher) are required.
- Admissions to the doctoral program will require either a master's degree in criminology/criminal justice, or closely related field, or substantial progress (defined specifically below) toward completing a master's degree. Students who are admitted from relevant master's programs at universities other than UALR, but who have not completed their master's thesis may be admitted as regular admits, but will be required to complete their thesis within one year of joining the Ph.D. program. If a student fails to complete the thesis in that period of time, the student will be suspended from enrolling in Ph.D. courses until the thesis is completed. These students must have completed all required course work and have only the thesis to complete.
 - Students who want to enter the Ph.D. program directly from an undergraduate program must first apply to the M.A. in Criminal Justice. After a student has completed a minimum of 21 hours in the M.A. program, that student may transfer to the Ph.D. program with approval of the doctoral coordinator. In such cases, students who fail to complete the Ph.D. program will be awarded an M.A. degree after successful completion of 36 credit hours and a written project with oral defense.
 - Students who successfully complete all requirements for the Ph.D. will be awarded both an M.A. and a Ph.D. The first three chapters of their dissertation will be considered completion of their thesis. Applicants with only a Juris Doctorate (no master's degree) will not be directly admitted to the program but will be required to take the MACJ courses in research methods, statistics, and criminal justice (police, corrections, criminological theory).

Admission decisions will be made by a committee of doctoral faculty. The doctoral admissions committee will also take the "fit" between the applicant and the doctoral program into account when making admission decisions, and may decline to admit an otherwise qualified applicant based on lack of fit with the program.

Conditional Admission

The doctoral admissions committee may conditionally admit a student for one semester who does not meet all of the requirements for admission. Such students will be evaluated by the doctoral admissions committee after one semester and a decision made to:

- continue conditional status,
- grant full admission to the doctoral program, or
- dismiss the student from the doctoral program.

Financial Assistance

A number of financial assistance opportunities are available to full-time doctoral students. Fellowships will be awarded in the amount of \$19,000 and will also cover tuition (fees will not be covered in fellowships/assistantships). Assistantships will be awarded in the amount of \$15,000 and will cover tuition. Efforts are made by the program to provide some type of financial support to all full-time doctoral students. Any funding decision, however, is dependent upon the availability of funds. It is expected first year doctoral students will primarily conduct research. In the second year (and subsequent years), doctoral students may be Research Assistants or Teaching Assistants with one or two of their own classes.

Program Requirements

Student Advising

The Doctoral Coordinator will be the primary contact person for all Ph.D. students. The Doctoral Coordinator will be available during the summer semesters, as well as available during evening hours at selected times to facilitate communication with all students.

At the end of the first semester and at the end of the first year, all doctoral students will meet individually with the Doctoral Coordinator. The meeting will involve performance in the program. The Doctoral Coordinator will obtain information from each course instructor of the student, from the student's assistantship advisor, and from any faculty who wish to make input. The meeting will address the strengths of the student and point out areas the student needs to strengthen. The result of the meeting will be a determination whether the student will be retained in the program or dismissed.

Course work

The program will include both day and night classes. Most of the classes specifically for doctoral students will be taught during the day. Courses that doctoral / master's may be taught at night. There is a residency requirement of full - time status (9 hours) for two, consecutive full term semesters.

Research Design and Statistical Analysis Course (15 hours)

Courses in research and statistics are designed to produce an ability to frame issues and relevant research questions related to the study of crime and justice, to select the most appropriate statistical techniques, and to properly interpret the results. Students must take a minimum of 15 hours from the following list of courses:

CRJU 7391 Social Statistics

CRJU 7392 Research Methods in Criminal Justice & Criminology

CRJU 8312 Secondary Data Set Management

CRJU 8315 Multivariate Statistics

CRJU 8314 Mixed Methodologies

Other statistics and/or methods classes offered at the university and agreed upon by the program coordinator

Crime and Justice Courses (12 hours)

Courses include specific or advanced topics on crime and justice. Students are expected to have some knowledge of theories of criminology and criminal justice before entering the doctoral program. These courses will build on that knowledge to provide expertise in the core areas related to criminal justice (police, courts, corrections, and criminological theory). Students must select Proseminar and 9 hours from the following courses:

CRJU 8310 Proseminar

CRJU 7300 Criminological Theory

CRJU 8313 Advanced Criminological Theory

CRJU 8321 Teaching Practicum

Students may also take courses from CRJU 7393, Special Topics to fulfill this requirement.

Elective Courses (9 hours)

Students may take one of three specialization areas or may form a topical specialization with the approval of the dissertation committee and Doctoral Coordinator.

The three specialization areas are policing, corrections, and crime related to the environment. The specialization areas are designed to give students more in-depth knowledge in a particular content area of criminal justice and criminology. The specialization in policing will examine theories, practices, and policies related to the historical development and current practices of police. The specialization in corrections will examine correctional theory both of institutional corrections and community based corrections.

The specialization in crime related to the environment of neighborhoods and cities will prepare students to conduct research on crime in metropolitan areas, including the mobility and interaction of residents; urban design in preventing crime; and the relationship between social, physical, and economic networks and crime.

Students selecting this specialization will take all of the courses from the Criminology Core and then take 6 hours in their specialization area. All students will take the teaching practicum. Students must take 6 hours from the following courses:

- CRJU 7322 Foundations of Policing**
- CRJU 7340 Correctional Administration**
- CRJU 8331 Urban Spatial Structures**
- CRJU 8332 Theories of Neighborhoods and Crime**
- CRJU 8373 Critical Issues in Criminology**
- CRJU 8383, Research Practicum (12 hours)**

Practicum

Research Practicum is the point in the program where students begin to put their course work and skills in criminal justice, research design, and statistical analysis into practice.

Dissertation

CRJU 8393 Dissertation (12 hours)

Upon reaching candidacy status, students may enroll in dissertation hours and begin work on the dissertation. The dissertation will be guided by the student's dissertation committee. The dissertation committee will be composed of a chair, two members of the doctoral staff, and an outside reader. The outside reader may be a faculty member with graduate faculty status from UALR, or may be a faculty member from another institution. The outside reader will serve in an advisory capacity only and will not vote on the prospectus or final defense of the dissertation. Successful completion of the dissertation will require an oral proposal defense, where the student will defend his or her topic and methods, and a final defense, where the student will defend his or her finding and conclusions. Policies and procedures for passing, failing, and repeating the dissertation defense will be in compliance with the UALR Graduate School.

Comprehensive Examinations and Dissertation

All Ph.D. students are required to take comprehensive examinations. The comprehensive examinations are designed to test the ability of the student to undertake independent research in a particular area and publish the results.

Examining Committee

Each year, an examining committee will be established for the incoming cohort of Ph.D. Students. This committee will be recommended by the doctoral coordinator. The examining committee will be the body that reviews the comprehensive exams for all students in that cohort. This body will serve until all members of that cohort have completed the examination process, recognizing that members of the cohort will complete the process at differing times.

Students will complete one publishable quality paper for presentation to the examining committee. This paper must be completed independently and cannot have significant faculty input. Some of the work may be completed as part of course work; but the majority of the comprehensive exam must be original work, self directed by the student.

At a minimum, the comprehensive exam must contain an Introduction, Problem Statement, Research Question, Methods, Finding, and Conclusions. The methods and analysis must be quantitative, qualitative, or mixed methods and must present results sufficient to warrant publication in a journal. It must be written in Chicago Citation Style and be polished without significant grammatical errors.

Students will deliver comps to the graduate coordinator who will submit them to the committee for blind review. Once the paper has been passed by the committee, the student is then free, and encouraged, to work with a faculty member to get the work published. Results of the examining committee will be one of the following:

- a. pass, b. revise and resubmit, or c. fail

If a student receives a revise and resubmit, that student will have a timeline determined by the examining committee to get the paper returned for reconsideration. If the paper is not returned within that period of time, the outcome will be changed to a fail and the student will be dismissed from the program. Students are allowed a maximum of 2 revise and resubmit decisions. If the paper is not acceptable on the third version of the comprehensive exam, the outcome will be changed to a fail and the student will be dismissed from the program. Any student who receives the decision of "fail" will be dismissed from the program.

Upon successful completion of the comprehensive examinations, the student will be advanced to candidacy. Each student will also complete a dissertation of sufficient scholarly nature to contribute to the field of criminology / criminal justice. The dissertation will be guided by the student's dissertation committee.

Dissertation Committee

Before choosing a topic for dissertation, students must choose a dissertation committee. The Chair of the committee must be a member of doctoral faculty in the Department of Criminal Justice as defined in the governance document. At a minimum, committee members must hold a Ph.D. in the field, teach doctoral classes at UALR, hold graduate faculty status as defined by the UALR Graduate School, and be research active as defined in the governance document. Dissertation committee members must participate in the lecture series, be available during the summer, and be active in conducting and publishing research in the discipline. In addition to the Chair, the committee must be comprised of at least one statistician or methodologist. One member should be a content specialist. The outside reader may be a faculty member with graduate faculty status from UALR, or may be a faculty member from another institution. The outside reader will serve in an advisory capacity only and will not vote on the prospectus or final defense of the dissertation.

Successful completion of the dissertation will require an oral proposal defense, where the student will defend his or her topic and methods, and a final defense, where the student will defend his or her findings and conclusions. Defenses are advertised and open to the entire UALR community. Policies and procedures for passing, failing, and repeating the dissertation defense will be in compliance with the UALR Graduate School.

Courses in Criminal Justice

CRJU 5300 Crime and Behavior

Contemporary criminological theories of factors contributing to crime and social disorder.

CRJU 5301 Judicial Process and Behavior

Literature on topics such as judicial selection, impact of court decisions, court procedure, factors affecting decision-making behavior of judges.

CRJU 5302 Law and Society

Role of law in modern society; emphasis on legal theories shaping U.S. legal system, theories of justice, legal reasoning, and application of these theories to real-world problems as introduction to the role of law in helping settle social conflicts.

CRJU 5380 Comparative Criminal Justice Systems

Law enforcement, judicial, correctional systems of other nations; emphasis on comparison with U.S.

CRJU 7300 Criminological Theory

Original works of criminological theorists from biological, psychological, sociological, and political perspectives; empirical, methodological adequacy of theories and literature; current application as viable explanation of criminal behavior.

CRJU 7301 Pro-seminar

A critical examination of the theoretical, methodological, and policy issues in criminal justice and criminology. Explores organized knowledge about enduring theoretical and policy questions concerning crime and justice; examines the theoretical foundations of crime control, the relationship between criminal justice agencies, and the relationship between the criminal justice system and its social, political, and economic environments. Also provides students with an overview of criminal justice in higher education and requirements of a graduate education.

CRJU 7303 Criminal Justice Systems

This course will discuss the major functional components of the criminal justice system from the historical, philosophical and system perspectives. It will analyze the interrelationships among components, and identify the impact of social and political forces on roles and functions of criminal justice agencies.

CRJU 7304 Criminal Justice Policy

This course is designed to prepare students to understand and influence policy issues in criminal justice. The course will build upon the CJ systems course to provide a base of knowledge in policy analysis, policy research, and working within the system for policy change. This course will be specific to criminal justice policy issues, and will prepare students to complete their public policy thesis.

CRJU 7305 Seminar in Criminal Law

Major concepts of criminal law; includes various states' approaches to definitions of crimes, criminal responsibility, criminal defenses.

CRJU 7320 Applied Research and Analysis

Examines the major concepts, techniques, and application of statistical methods in criminal justice. Topics include understanding when statistical techniques are appropriate, interpretation of results, organization and presentation of numerical information, and introduction to descriptive statistics.

CRJU 7321 Criminal Justice Organizations and Management

An overview of major theories of criminal justice organizations and management. The course will center on police and correctional organizations but may be applied to any criminal justice organization. Among the topics studies are leadership, personnel, organizational and political environments, and organizational development.

CRJU 7322 Foundations of Policing

Specific aspects of American police agencies' organizational patterns, administrative problems, community issues, internal role systems.

CRJU 7323 Ethics in Criminal Justice

Overview of ethical theory, doctrines, and controversies in the field of criminal justice. Emphasis is placed on the dilemmas faced by criminal justice practitioners and supervisors seeking to make appropriate ethical judgments and decisions that are in keeping with the goals of justice.

CRJU 7324 Human Resource Management

A number of recent developments, including demographic changes in the labor force increased global competition, experiments with new organizational arrangements, and public policy attention to work force issues have made human resource management increasingly important for law enforcement and correctional managers. This course will cover a broad range of topics associated with HR management specific to the domain of law enforcement and corrections from differing perspectives. Topics covered will include recruiting/selection of employees; training, motivation, and evaluation; retention; discipline and termination; EEO; policy development, and implementation; legal issues and civil liability.

CRJU 7325 Cyber Crime and Information Systems Security

Provides a foundation for the use of Geographic Information Systems (GIS) in analyzing data and making policy decisions. Topics include the use of GIS as a visual representation of demographic and infrastructure data, using GIS to summarize information, and use of GIS computer software.

CRJU 7326 Public Budgeting

Budgeting touches every aspect of the public sector, demanding that anyone concerned with policy making and implementation understand how the process works. This class covers the terminology, components, practices, documents and methods of public budgeting and finance at all levels of government and in the non-profit world. Among other things, students will gain an understanding of the budget process, prepare basic budgets, practice using budget documents to do analysis, learn how to evaluate an organization's finances using financial reports, and write a financial analysis.

CRJU 7330 Capstone Project

The criminal justice capstone course is designed to assist students in the integration and synthesis of their graduate experiences from both a theoretical and policy framework. The end product, a Capstone Paper, will provide a means for demonstrating mastery of the discipline and a vehicle for future work and study in the criminal justice profession.

CRJU 7331 Community-Based Corrections

Traditional correctional functions; emphasis on development of community diversion and residential programs, involvement of correctional programs in the community.

CRJU 7340 Correctional Administration

Problems with control and treatment of offenders in institutional correctional settings.

CRJU 7341 Teaching Practicum

Prepares students to teach criminology / criminal justice courses. Covers aspects of presentation, pedagogical issues, giving and grading tests, and handling problem students. Also addressed will be expectations and activities involved in being a faculty member.

CRJU 7360 Deviant Behavior

See Psychology 7360.

CRJU 7361 Social Psychology

See Psychology 7361.

CRJU 7370 Juvenile Delinquency Problems

Topics related to juvenile delinquency and prevention in the juvenile justice system.

CRJU 7390 Independent Study

Prerequisites: graduate standing, consent of program coordinator. Intensive research under faculty supervision or practical experience in a selected criminal justice agency. Requires completion of a research paper.

CRJU 7391 Social Statistics

Logic, uses of statistical analysis in social science research; focus on statistical design of research projects, analysis of computer-generated output, statistical procedures and results; critique of statistical adequacy of related literature.

CRJU 7392 Research Methods in Criminal Justice and Criminology

Methods and techniques of research in the behavioral sciences. Includes an in-depth analysis of the conceptualization of research and the design of appropriate research strategies. Topics covered include experimental design, questionnaire construction, observational techniques, and qualitative research designs.

CRJU 7393 Seminar on Special Topics in Criminal Justice

Crucial criminal justice topic determined by student interest, available faculty resources; emphasis on exhaustive analysis of literature in the subject area.

CRJU 8193 Dissertation

Requires consent of advisor. Students will work with advisory committee to complete dissertation.

CRJU 8301 Portfolio Preparation

The portfolio will consist of a comprehensive literature review on a topic of interest to the student which is to be selected in consultation with a graduate review committee. The portfolio will include a critique of the relevant literature, including any conflicts that exist in previous research, and direction for future research on the topic. The portfolio must be approved by the student's graduate review committee. Students are expected to provide an oral presentation on the portfolio to the committee.

CRJU 8302 Policy Portfolio Preparation

This course will facilitate completion of the policy portfolio needed for graduation from the policy track of the MACJ program. Topics covered in this course include review of the literature, to include cases and laws; gathering policies, mandates, and legislation on the topic; research concerning policies of agencies, and qualitative / quantitative research methodologies. The product of the course will be a complete policy portfolio.

CRJU 8303 Thesis

Independent investigation demonstrating knowledge and methods of scholarship and culminating in a written thesis with oral defense. Variable credit of one to three hours.

CRJU 8310 Doctoral Proseminar

Provides a foundation for the study of crime and justice and an introduction to the role of Ph.D.s. in criminology / criminal justice. Topics include current trends in higher education, employment and career planning, and the role of academics in reducing crime. The course will also serve as an introduction to the doctoral program and writing refresher for incoming doctoral students.

CRJU 8311 Survey of Theories of Justice

Addresses the theoretical foundation of the justice system in the U.S. Topics include theories related to policing, law, corrections, and juvenile justice. This course provides a foundation for the advanced studies of topics in other courses in the doctoral program.

CRJU 8312 Secondary Data Set Management

Provides an understanding of secondary data sets and how they can be used in analyses and program evaluation. Topics include data cleaning for accuracy and efficiency, recording variables, and preparing data sets for analysis with SPSS.

CRJU 8313 Advanced Criminological Theory

Current works in criminological theory. Addresses updates of classical criminological theories as well as theories and research within the previous ten years.

CRJU 8314 Mixed Methodology

The course provides instruction in advanced methodologies of criminal justice and criminological research. Students will be exposed to a variety of qualitative techniques in addition to quantitative techniques of research methods. CRJU 7392 should be completed prior to taking this class. Enrollment in this course is restricted to students enrolled in the Ph.D. in Criminal Justice. Students from outside the CRJU Ph.D. program who wish to enroll must have permission of the Criminal Justice graduate coordinator and the professor of records.

CRJU 8315 Multivariate Statistics

This course provides instruction in advanced multivariate statistical application. CRJU 7391 should be completed prior to taking this class.

CRJU 8331 Urban Spatial Structures

Provides an understanding of American cities, how they have changed over time, and how the spacio-temporal characteristics influence criminal behavior.

CRJU 8332 Theories of Neighborhoods and Crime

The goal of the course is to provide a comprehensive theoretical background upon which to conduct research on neighborhoods and crime.

CRJU 8333, Theory and Practice of Spatial Analysis

Advanced analysis of data related to crime in the urban environment. Topics include using Spatial Analyst, CrimeStat III, and other spatial statistics. Theories of neighborhoods and crime will be tested using data on crime and social dynamics.

CRJU 8373 Critical Issues in Criminology

This course is designed to provide in-depth readings on topical subjects that are pertinent to student's concentration area. Students will be provided with a readings list and will be required to demonstrate analysis of information from that list in the form of papers, presentations, and special topic discussions.

CRJU 8383 Research Practicum

Course goals are to: 1) give students experience in writing grant proposals and obtain funding, 2) give students experience in designing research and putting research in practice, 3) give students practical experience in conducting research, and 4) build on student knowledge in analysis and research in preparation for completing their dissertation.

CRJU 8393 Dissertation

Requires consent of advisor. Students work with advisory committee to complete dissertation.

Master of Arts in Mass Communication

The Master of Arts in Mass Communication program is located within the School of Mass Communication (SMC) and emphasizes critical thinking about journalistic media content and its effects on the public. It also teaches students how to analyze and conduct scholarly research in Mass Communication and how to write up and present the results of such research to both scholarly and non-scholarly audiences. Although the program does not emphasize the teaching of journalistic writing skills, it does offer limited opportunities to earn graduate credit in advanced skills course work in Mass Communication and public relations.

The program is open to students with undergraduate majors or minors in Mass Communication, to working journalists, and to those without Mass Communication backgrounds who are willing to complete several undergraduate Mass Communication skills courses, as determined by the program coordinator upon admission.

Most of the program's graduate courses are offered during the evening and in the early morning for the convenience of the working professional. Generally, these courses meet once a week for approximately three hours.

Admission Requirements

- Baccalaureate degree from an accredited institution with a grade point average of at least 3.0 (4.0 scale) on the last 60 hours of undergraduate credit
- Letter of 250-500 words outlining professional goals and purpose for desiring the degree
- A résumé of professional and academic experience and accomplishments
- Two letters of recommendation from former professors who can evaluate the applicant's academic abilities

All of these materials, including official transcript(s) from the institution(s) awarding the last 60 undergraduate semester hours, all graduate hours, and all degrees must be submitted to the UALR Graduate School. In evaluating each applicant, the graduate program admissions committee weighs the transcript(s) and evidence of professional competence or potential. Students whose application materials do not satisfy regular admission requirements may submit scores from the Graduate Record Examination (GRE) as supplemental information to be considered by the admissions committee.

Program Requirements

The Mass Communication graduate program offers two options: thesis and professional. A comprehensive project and at least 33 hours of study at UALR are required of all students. Each student's program is subject to an adviser's approval.

All courses usually are taken in the School of Mass Communication; however, up to nine approved cognate graduate hours may be taken in other graduate areas. In some instances, courses from another area can form a concentration area. Only six hours with grades of C can count toward the degree.

If a student's cumulative GPA falls below 3.0, that student may enroll for only three credits per semester until the GPA rises to 3.0 or higher. The Mass Communication graduate program coordinator may make exceptions to this rule, if circumstances warrant them.

Students who have not studied Mass Communication at the undergraduate level or who do not have sufficient professional Mass Communication experience to master basic news writing, reporting, and editing skills will be required to complete any or all of the following courses:

MCOM 2350 Techniques of Writing for the Mass Media

MCOM 3320 Reporting Principles

Two of the following courses may be required for graduate credit:

MCOM 5350 Design and Production

MCOM 5352 News Media and the First Amendment

MCOM 5358 Reporting of Public Affairs

Students without an undergraduate background in Mass Communication should take MCOM 5352, News Media and the First Amendment. This class should be completed, either at the graduate or undergraduate level, before taking MCOM 7330, Seminar in Mass Communication Law. Students without a solid knowledge of mass communications history should consult with the Mass Communication graduate program coordinator about how to overcome that weakness.

Program Options

Thesis Option

Requires 33 graduate credit hours, including MCOM 7300 and 7305, 7335, 7340, and a 6-hour thesis with oral defense (MCOM 8300 or 8600).

Professional Option

Requires 33 graduate credit hours, including MCOM 7300, the student's choice between 7335 or 7340, and an approved professional project (MCOM 7180, 7280, 7380).

Transfer Credit

Up to six graduate hours with grades of B or greater may be transferred from an accredited institution, if approved by the Mass Communication graduate program coordinator.

Use of Materials

All materials submitted by students as assignments in writing, reporting, editing, photography, and electronic news gathering classes are subject to broadcast or publication. The School of Mass Communication uses a variety of electronic and print media outlets.

Graduate Assistantships

A limited number of graduate assistantships may be available. Contact the graduate program coordinator for information.

Graduation Requirements

- Earn a cumulative GPA of at least 3.0 on an approved course of study as outlined above.
- Complete the professional project or thesis, if applicable.

Courses in Mass Communication

MCOM 5350 Design and Production

Prerequisite: junior status and MCOM 2320 or consent of instructor based on demonstrable professional experience. Decision-making in the editing process. Principles of typography and design for print and online media.

MCOM 5352 News Media and the First Amendment

Prerequisites: junior standing; MCOM 3360 recommended prerequisite. The restrictions, obligations, and responsibilities of the news media; the law and its effect on publishing and broadcasting; relations between the law and freedoms protected by the U.S. Constitution.

MCOM 5357 Seminar in Radio-Television Journalism

Broadcast news policies; history; governmental, other forms of regulation; social implications; influence of various publics on radio-television news coverage.

MCOM 5358 Reporting of Public Affairs

Prerequisites: MCOM 2320, 2350, and 3320; MCOM 3315 and 3360 may be taken as prerequisites or corequisites; or consent of instructor based upon demonstrable advanced media experience. Practice in gathering materials and writing in-depth stories on public affairs; emphasis on courts, police, government, education, ecology, the economy, and social issues.

MCOM 5359 Feature and Magazine Writing

Prerequisites: MCOM 2320 and 2350. Planning, researching, and writing the feature article for newspapers, magazines, and online publications. Emphasis on humanistic reporting and providing a context for the news through thorough research and application of this research to the article. Materials submitted as assignments are subject to publication.

MCOM 5375 Journalistic Freedom and Responsibility

Journalistic ethics and practices; professional conduct, responsibilities of the journalist in a free society.

MCOM 5380 Public Relations Writing

Prerequisites: MCOM 2320 and 2350; MCOM 2350 may be corequisite. The journalistic function in public relations, includes the writing and processing of news and feature releases for print and electronic media and editing internal and external publications.

MCOM 5381 Public Relations Cases

Three credits. Study of recent public relations cases involving business, industry, institutions and government. Students will also be introduced to public relations theories as they are applied in case studies and will analyze cases in terms of their component parts.

MCOM 5384 Topics in Mass Communication

Prerequisite: junior standing and consent of instructor. Advanced and specialized topics in mass communication, especially those of current interest and relevance to mass communication professionals. Possible subjects include the following: journalism, entertainment, production and design, Web and media, strategic communication, mass media, etc. Classes will provide an in-depth understanding of topics chosen. Refer to the semester schedule for specific topics offered.

MCOM 5386 Images of Minorities in the Media

This course examines the material and ideological representations of various racial and ethnic groups in the United States as reflected in the media including both historical and contemporary depictions. Students explore theories including racial formation, otherness, and commodification among others. In this course, students learn the origins of ideological and material representations of minorities; how they are maintained in the culture and in the media; the similarities and differences in depictions among and across racial and ethnic groups; and the impact of these representations on the various minority groups and society as a whole.

MCOM 7180, 7280, 7380 Special Problems in Mass Communication

Prerequisite: consent of a graduate faculty member. Individual work on selected problems in mass communication.

MCOM 7190, 7290, 7390 Readings in Mass Communication

Prerequisite: consent of a graduate faculty member. Individual readings of selected works in mass communication.

MCOM 7300 Proseminar in Mass Communication

Introduces graduate students to Mass Communication graduate program content and faculty expectations; to IRB certification; to social-science research techniques and interpretation; to scholarly manuscript process and presentation; and to post-MA career possibilities, both professional and academic.

MCOM 7305 Mass Communication Processes and Effects

Structure, theory, processes, effects of mass communication, mass media in the U.S.; relationships of media to one another, to other major institutions in U.S. society, to individuals and groups.

MCOM 7310 Precision Journalism

Application of behavioral science methodology to news reporting, especially to reporting of governmental, public affairs.

MCOM 7315 International Mass Communication

Comparison, contrast of mass media around the world; interaction between media and governments; role of media in the development of nations; international communication theories, models.

MCOM 7316 Ethnic and Alternative Media in America

This course examines the role and function of ethnic and alternative news organizations in America from historical to contemporary times. Students will consider how ethnic and alternative news organizations and outlets have changed and contributed to society, as well as obstacles facing these organizations. Students will explore similarities and differences between mainstream news organizations and alternative media outlets.

MCOM 7320 Literature of Journalism

Review and assessment of writings, primarily books, concerning various aspects of journalism to provide a familiarization with and understanding of the body of literature pertaining to the discipline.

MCOM 7325 The Press and Propaganda

Interaction between press and institutionalized propaganda; theory, practice of persuasive campaigns created and implemented by political, religious, commercial institutions; strategy and media use for creating public opinions and issues, candidates, products, policies.

MCOM 7330 Seminar in Mass Communication Law

Prerequisite: MCOM 4352/5352 or equivalent. Pinpoints research procedures and provides incentive, direction, and a forum for examining topics in mass communication law; treats specific problems by examining statutory confines and court interpretations.

MCOM 7331 Internet Policy and Regulation

This course is an overview of the policies and regulation that govern the Internet as a mass medium. It focuses on areas of active discussions among mass media practitioners, legislators, policy makers, the law courts, scholars and the American people.

MCOM 7335 Seminar in Journalism Quantitative Research

Prerequisite: MCOM 7310 or equivalent. Methodological approaches to the study of mass communication structure, processes, effects; emphasis on survey and experimental research procedures and content analysis.

MCOM 7337 Media Criticism

This course adopts a qualitative methodological approach to research in the framework of humanities, popular arts, critical theory, and cultural studies. It examines the social, cultural, and informational dimensions of mass media - the structures of mass media industries, and the mass media industries as culture industries.

MCOM 7340 Seminar in Journalism History

Historiography as applied in the field of journalism history; analysis of and practice in the scholarly writing of journalism history; selected topics in journalism history.

MCOM 7350 PR for 21st Century Non-Profits

Three credits. Study of public relations strategic media planning with special emphasis on the application of public relations principles as they apply to non-profit organizations. Includes student project.

MCOM 7360 Editorial Writing

Media's comment function, policies, problems.

MCOM 7365 New Media Writing and Producing

Students in this course will learn how to use various multimedia tools to write and produce journalistic content for various online media venues.

MCOM 7370 New Media Publishing

This course involves learning how to design and publish multimedia mass communication content on the Internet. It is a lecture, lab and project based course that focuses on the principles of convergent journalism and the processes of responsive design and publishing mass media content on the Internet.

MCOM 7398 Professional Project

Under the direction of their supervisory committees students will use this course to complete professional-quality mass communication projects that integrate and synthesize their graduate experiences in the Professional Journalism/Public Relations Option. These projects will demonstrate the student's mastery of the discipline and provide the framework for future work in the field.

MCOM 8100, 8200, 8300, 8400, 8500, 8600 Thesis

Prerequisite: successful completion of comprehensive examination. A scholarly work based on research that advances an original point of view in the discipline of journalism. Variable credit of one to six hours.

Graduate Certificate in Nonprofit Management

The graduate certificate in Nonprofit Management is designed for both in-service students currently employed in nonprofit organizations and pre-service students interested in entering the nonprofit sector. The curriculum combines scholarly knowledge with practical applications. Classes are taught by experienced faculty from a variety of fields including public administration, social work, communication, and finance, and by experienced professionals in the local nonprofit community.

Courses present trends affecting nonprofits and businesses alike and how to use these for the successful management of nonprofit organizations. Learning with managers from other nonprofit organizations, students are able to develop their personal styles of management while gaining knowledge and skills in topics outside their immediate job areas for further professional growth.

For more information, see the program's website, ualr.edu/iog/nonprofitcenter/educational-opportunities/.

Admission Requirements

- Baccalaureate degree from a regionally accredited institution and ability to meet the general admission standards of the UALR Graduate School
- Preference is given to persons who are currently employed in a nonprofit organization.
- An essay demonstrating students' background and interest
- Two letters of reference relevant to the application

Program Requirements

The graduate certificate in Nonprofit Management requires 18 graduate credit hours, including 6 required hours and 12 approved elective hours. In the Capstone Course, students prepare and present a final project.

Required Courses

PADM 7336 Nonprofit Organization Management (3 hours)

PADM 7374 Capstone Project (3 hours)

Electives

Elective courses must be approved by the program coordinator and cover topics in:

- Financial management
- Fundraising
- Human resources (including volunteer management)
- Public relations and marketing
- Program planning and evaluation

Current approved elective courses include:

PADM 7313 Public Human Resource Management

PADM 7324 Financial Management for Nonprofit Organizations

PADM 7326 Public Organizational Networks for Nonprofits

PADM 7331 Financial Management for Nonprofit Organizations

PADM 7334 Grant writing and Fundraising

PADM 7331 Human Resources/Volunteer Management

PADM 7346 Current Issues in Public and Nonprofit Management

PADM 7380 Public Program Evaluation

MCOM 7350 Public Relations for the 21st Century Nonprofits

SOWK 8159/8259/ Evaluation Research I & II

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above
- Successful passing of both the written capstone project and the oral presentation of the project.

Student Union B, Room 100

(501) 569-3160

Master of Arts in Professional and Technical Writing

The Master of Arts in Professional and Technical Writing (PTW) program provides extensive and intensive study of and practice in writing designed to prepare students for careers in business and government, publishing, and education. It focuses on developing individual abilities and on helping students become articulate, informed scholars and writers able to adapt to a wide range of situations and tasks. The program offers two concentrations, one technical and the other nonfiction. The technical concentration focuses on writing for industry, science, business, and government. The nonfiction concentration focuses on composition and rhetorical theory, essay and extended nonfiction writing, and a general application of writing skills, including the teaching of writing.

The Little Rock Writing Project, housed in the Department of Rhetoric and Writing, offers PTW students opportunities to work with teachers and administrators from all grade levels to improve writing education in Arkansas schools. It offers graduate courses, writing and special topics workshops, and other services to teachers and students across the state.

As part of a university community that acknowledges the importance of assessment, we gather assessment data through student portfolios and exit surveys, employer surveys, doctoral student progress reports, and faculty idea exchanges. We then use these findings to improve our programs. Visit the program's website for more information at ualr.edu/ma/ptwr.

Admission Requirements

- Online application to Graduate School
- Baccalaureate degree from a regionally accredited institution with a cumulative grade point average of 3.0 or greater (4.0 scale) or 3.0 or greater in the last 60 hours
- Statement of purpose, explaining applicant's interest and background in writing and outlining the applicant's expectations and goals with regard to the program
- Current résumé
- Writing portfolio indicative of applicant's range, ability, interests, and style (may contain work completed in college courses, writing from the workplace, and/or freelance work): three to four pieces
- Three letters of recommendation

Online application and official transcripts should be sent to the Graduate School. Statement of purpose, résumé, portfolio, and letters should be sent to the PTW program coordinator, Department of Rhetoric and Writing. Applicants are strongly urged to contact the coordinator before completing the application process.

Graduate Assistantships

A limited number of graduate assistantships, both teaching and non-teaching, are available each year. Most students who are granted assistantships teach 1-2 sections of first-year composition or are involved in training tutors and administration in the University Writing Center. Students who wish to apply for teaching assistantships must first complete RHET 7310 Composition Theory. Students who wish to apply for Writing Center assistantships must have served at least one semester as a writing center tutor during their undergraduate degree, or they must first complete at least one semester of RHET 7360 Writing Center Internship. The number of non-teaching assistantships varies each year; these positions are highly competitive, and they are awarded in part based on the student's particular skill set. Contact the program coordinator for more information.

Program Requirements

The PTW program offers two options for completing the master's degree: a 36-hour option that culminates in a thesis project and a 42-hour option that culminates in a portfolio defense. Students will choose which option to complete in consultation with the program's graduate coordinator, as well as with the student's portfolio mentor (a faculty member assigned to assist with the student's development as a writer when the student is admitted to the program). Students are required to meet with both their portfolio mentor and the graduate coordinator at least once per semester for advising and review of the student's progress in the program.

Thesis Option

The thesis option for the Master of Arts in Professional and Technical Writing requires 12 hours of core courses, 12 hours of concentration courses, 6 hours in a cognate area, and 6 final project hours. All students are welcome to select the thesis option, but it is especially recommended for students who already have a bachelor's degree in writing (or a closely related area) and for students who want to use their master's course work as preparation for pursuing a Ph.D.

Core Courses

Core courses introduce students to important areas of theory necessary to the successful completion of the degree. Students must complete all 12 hours of core courses. Substitution courses, independent studies, and transfer hours are not acceptable for PTW core courses. The required courses include the following:

RHET 7310 Composition Theory

RHET 7311 Rhetorical Theory

RHET 7312 Language Theory

RHET 7313 Theory of Technical Communication

Concentration Courses

Concentration hours allow students to develop a specialization within the program. Students typically choose to complete 12 hours from the technical writing concentration, the nonfiction writing concentration, or the editing concentration. With permission from the program coordinator, students may mix courses from among the concentrations if the course selection is appropriate to the student's career goals. No more than three hours total of independent study or internship credit may be counted toward a student's concentration hours.

Technical Writing Concentration Courses	Nonfiction Writing Concentration Courses
RHET 5304 Technical Style and Editing	RHET 5202 Teaching Writing in Secondary Schools
RHET 5305 Document Design	RHET 5301 Theories of Rhetoric and Writing
RHET 5306 Writing for Business and Government	RHET 5305 Document Design
RHET 5307 Writing Software Documentation	RHET 5315 Advanced Persuasive Writing
RHET 5346 Topics in Technical Communication	RHET 5317 Advanced Nonfiction Writing
RHET 5371 Writing on the Web	RHET 5318 Writing Auto/Biography
RHET 5375 Grant Writing	RHET 5321 Editing for Publication
RHET 7320 Working with Writers	RHET 5325 Legal Writing, Reasoning, and Argument
RHET 7340 Topics in Technical, Business, and Government Writing	RHET 5345 Topics in Persuasive Writing
RHET 7350 Independent Study	RHET 5347 Topics in Nonfiction Writing
RHET 7360 Internship/Practicum 1	RHET 7300 Introduction to Research Methods
	RHET 7320 Working with Writers
	RHET 7330 Topics in Nonfiction Writing
	RHET 7331 Topics in the Essay
	RHET 7332 Topics in Extended Nonfiction
	RHET 7335 Topics in Rhetoric
	RHET 7350 Independent Study
	RHET 7360 Internship/Practicum 2
Editing Concentration Courses	
RHET 5304 Technical Style and Editing	
RHET 5321 Editing for Publication	
RHET 5322 Advanced Editing	
RHET 5347 Topics in Nonfiction Writing 3	

1. An internship for a company, nonprofit, or government organization
2. Internship in the University Writing Center or first-year composition teaching practicum
3. When the topic is Production Editing

Cognate Courses (6 hours)

Cognate hours are designed to allow writers to develop areas of additional knowledge and experience that support their PTW concentrations. Students in the technical writing and nonfiction writing concentrations may choose to develop a cognate area outside the Rhetoric and Writing Department if they wish; some popular options include cognate courses in speech communication, linguistics, literature, creative writing, mass communication, management, political science, psychology, computer science, and graphic design. Students in technical writing and nonfiction writing concentrations may also choose cognate courses from other areas of the PTW program, including internship and independent study courses. Cognate hours must be chosen from graduate-level courses. Graduate courses from other institutions are acceptable for transfer as cognate hours; students should inform the graduate coordinator immediately.

Students in the editing concentration are required to fill their cognate hours with six hours of editing internship credit by taking a combination of RHET 7161, 7261, and/or 7361. Editing internship hours must be approved in advance by faculty members coordinating the editing concentration.

Final Project Courses (6 hours)

Students choosing the thesis option must complete both RHET 8300 (the thesis proposal course) and RHET 8301 (the thesis completion course). These courses allow students to design, propose, and complete extended writing projects appropriate to their concentrations and career goals. A PTW thesis may take form of a traditional academic research project, or it may take the form of an extended, substantial applied project with an accompanying researched analytical essay.

Portfolio Option (42 hours)

The portfolio option for the M.A. in Professional and Technical Writing requires 12 hours of core courses, 12 hours of concentration courses, 6 hours in cognate area, and 12 additional hours of course work selected by the student and his or her portfolio mentor. All students are welcome to select the portfolio option, but it is especially recommended for students who completed bachelor's degrees in disciplines other than writing, English, or Mass Communication. The portfolio option is also recommended for students who have chosen the editing concentration, as it enables them to choose more electives than allowed under thesis options.

Required Course work

The requirements for the core courses, concentration courses, and cognate courses are identical to the requirements for the thesis option (see the thesis option requirements above for more details). After completing these courses, the student will consult with his or her portfolio mentor to choose four additional courses that will broaden the student's range for writing abilities, strengthen his or her professional skill set, and produce a portfolio of writing and/or editing samples that will help students attain the next logical step in their career paths. These courses may be chosen from within the Rhetoric and Writing Department or from outside the department, depending on the needs and goals of the individual student. Portfolio option students may not count more than 9 total credit hours of internship, practicum, or independent study credit toward their degree.

If a student completes the core, concentration courses, and cognate hours and remains undecided about which degree option to pursue, the student may take RHET 8300 and count it toward either option. If a student completes RHET 8300 and wishes to undertake the thesis project proposed in that class, he or she will then register for RHET 8301 and complete the thesis option. If the student decides after completing RHET 8300 that he or she does not want to undertake the proposed thesis project, he or she may count RHET 8300 toward the 12 hours of additional course work required for the portfolio option.

Portfolio Completion and Defense

Portfolio option students must consult with their portfolio mentor at the beginning of their final semester of course work to choose two other faculty members to serve on the student's portfolio committee. The student will then work with the committee to select five-six written pieces from the student's course work in the program and then revise those pieces to a level of professionalism appropriate for publication or for use in a corporate, nonprofit, or governmental organization. When all three members of the committee agree that the student's writing samples have reached an appropriate level of professionalism the student must schedule a portfolio defense (a public presentation of the finished

portfolio with time for questions from the student's committee and audience members). If the committee members agree that the student's performance at the defense is satisfactory, they will sign the student's portfolio defense paperwork certifying that the student has completed all requirements for the degree.

Thesis Option Graduation Requirements

- Cumulative GPA of at least 3.0 on a minimum of 36 hours of course work (as outlined above)
- Successful completion and defense of thesis project

Portfolio Option Graduation Requirements

- Cumulative GPA of at least 3.0 on a minimum of 42 hours of course work (as outlined above)
- Successful completion and defense of master's portfolio

Courses in Rhetoric and Writing

RHET 5202 Teaching Writing in Secondary Schools

Prerequisite: graduate standing. This is a methods course that is team-taught by the English and Rhetoric and Writing departments. The topics include making classroom presentations, managing small-group work, responding to student writing, evaluating and using secondary school literature and composition textbooks, and learning approaches to teaching literature and writing. It should be taken in conjunction with English 5202.

RHET 5301 Theories of Rhetoric and Writing

Prerequisite: graduate standing. An introduction to the formal study of classical and contemporary theories of rhetoric and writing. Emphasis on the practical understanding and application of techniques of rhetorical analysis and criticism.

RHET 5304 Technical Style and Editing

Prerequisites: RHET 3301 and RHET 3316 or RHET 3326, or consent of instructor. Institutional and industrial style manuals; editing technical, business, government, scientific reports.

RHET 5305 Document Design

Prerequisite: graduate standing. Study and practice of the use of visual elements in technical communication. Emphasis on typography, page layout, data displays, pictorial communication, and usability testing for both print and online documents.

RHET 5306 Writing for Business and Government

Prerequisite: graduate standing. Theory of and practice in writing for business and government organizations; includes writing strategies, appropriate diction, report formats.

RHET 5307 Writing Software Documentation

Prerequisite: graduate standing. Study and practice of writing documentation for computer software, including printed manuals, tutorials, reference guides, and online help systems. Emphasis on analyzing prospective users and their tasks, interviewing subject matter experts, developing help for different levels of users, writing user-friendly text, editing documentation for style and clarity, and working on a documentation team. Intensive practice with RoboHELP HTML software for composing online help.

RHET 5315 Advanced Persuasive Writing

Prerequisite: graduate standing. Intensive study of classical and new rhetorics. Emphasis on solving rhetorical problems and producing a variety of persuasive texts.

RHET 5317 Advanced Nonfiction Writing

Prerequisite: graduate standing. Writing to explore, investigate, explain; includes writing a variety of professional, scholarly, and popular essays.

RHET 5318 Writing Auto/Biography

Prerequisite: graduate standing. A workshop-centered course focused on developing extended nonfiction essays chronicling events in one's own life or the lives of others.

RHET 5321 Editing for Publication

Prerequisite: graduate standing. A hands-on experience in pre-production editing for publication. Includes study of the editing process, manuscript acquisition, the peer review process, manuscript editing, editorial correspondence, and pre-production manuscript preparation.

RHET 5322 Advanced Editing

Prerequisite: RHET 4/5304 or RHET 4/5321, or comparable skills as determined by the instructor. Topics include editing graphics, illustrations, and document design; editing for comprehension and organization; editing text electronically, applying styles to text, and creating templates; studying legal and ethical issues in editing; acquiring project management and effective teamwork skills. Students work with actual clients and their document needs. Three credit hours.

RHET 5325 Legal Writing, Reasoning, and Argument

Prerequisite: graduate standing. Designed for all majors, particularly for pre-law students and writers interested in the discourse of the law. Students will read a variety of judicial decisions on current issues such as freedom of speech and complete several relatively short assignments focusing on legal reasoning and argument. Students will also learn how to find information on legal decisions and issues. Graduate students are encouraged to complete an introductory course in persuasive writing and/or rhetoric before taking this course.

RHET 5345 Topics in Persuasive Writing

Prerequisite: graduate standing. Theory and practice of persuasion with topics varying each semester. May be repeated for credit when topic varies.

RHET 5346 Topics in Technical Communication

Prerequisite: graduate standing. Theory and practice of technical communication; topics vary each semester. May be repeated for credit when topic varies.

RHET 5347 Topics in Nonfiction Writing

Prerequisite: graduate standing. Theory and practice of nonfiction writing with topics varying each semester. May be repeated for credit when topic varies.

RHET 5371 Writing on the Web

Prerequisite: graduate standing. An introduction to the rhetorical aspects of web design and construction that emphasizes audience(s), purpose(s), and accessibility issues such as website navigation, readability, visual design, and ADA compliance.

RHET 5372 Usability Testing and Design

Prerequisite: graduate standing. An introduction to principles of user experience (UX) design, usability, and usability testing in the context of new media. Topics covered include interaction design, audience and requirements analysis, prototyping, document aesthetics, and usability testing procedures. May be taken for credit by students who have taken RHET 4372 as undergraduates. No programming experience required.

RHET 5375 Grant Writing

Prerequisite: graduate standing. Survey, theory, and practice of grant writing (solicited and non-solicited) and the philanthropic sector. Topics include, but are not limited to, finding and researching a foundation, finding and using resources for each stage of the grant writing process, developing a problem statement, creating objectives and goals, creating a budget, and working with foundations.

RHET 7150, 7250, 7350 Independent Study

Prerequisites: graduate standing and consent of instructor. Intensive research and writing under faculty supervision on an approved topic in an area not covered in regularly scheduled course offerings; written proposal and final product required. No more than three hours may count toward concentration requirements. Additional hours may fulfill cognate requirements. May be repeated once for degree credit.

RHET 7161, 7261, 7361 Editing Internship

Prerequisite: graduate standing, recommendation of the departmental editing track coordinator. Hands-on editing experience in a professional workplace. Work hours, activities, and responsibilities must be specified in a written agreement between employer and the student in consultation with the editing track coordinator. Credit hours may vary (1-3). May be repeated for credit.

RHET 7300 Introduction to Research Methods

Prerequisite: graduate standing. An introductory course in research methods used to study writing in the classroom and workplace; quantitative and qualitative design; ethics of human subject research.

RHET 7310 Composition Theory

Prerequisite: graduate standing. Contemporary research and theory on composing processes; includes the text itself, writing behavior, relationship between cognition and writing, writing contexts and communities, development of the individual writer; requires extensive research.

RHET 7311 Rhetorical Theory

Prerequisite: graduate standing. Nature, extent, practice of rhetoric; emphasis on necessity of integrating a solid understanding of rhetorical theory with extensive writing in a variety of modes for a variety of audiences and reasons.

RHET 7312 Language Theory

Prerequisite: graduate standing. Research and theory concerning acquisition and nature of functional language competence, including oral and written language and the movement from oral to written discourse.

RHET 7313 Theory of Technical Communication

Prerequisite: graduate standing. Research and theory concerning writing in professional settings; includes study of processes and products of writing in the workplace, theories informing technical communication, influence of new technologies, implications for pedagogy and practice. Requires extensive research and writing.

RHET 7320 Working with Writers

Prerequisite: graduate standing. Study of a variety of writing processes, strategies, skills for writers. Emphasis on practical applications for writers and writing teachers in academic, work, and other settings.

RHET 7330 Topics in Nonfiction Writing

Prerequisite: graduate standing. Advanced study of theoretical, practical, or pedagogical topics related to nonfiction writing. May be repeated for credit when topic varies.

RHET 7331 Topics in the Essay

Prerequisite: graduate standing. Advanced study of theoretical, practical, or pedagogical topics related to the essay. May be repeated for credit when topic varies.

RHET 7332 Topics in Extended Nonfiction

Prerequisite: graduate standing. Advanced study of theoretical, practical, or pedagogical topics related to extended nonfiction writing. May be repeated for credit when topic varies.

RHET 7333 Topics in Editing and Publishing

Prerequisite: graduate standing. May include topics such as Editing for Global Audiences; Intellectual Property, Authorship, and Copyright; History of Printing and the Book; Freelance Editing; and Research and Fact Checking. May be repeated for credit when topic varies. Three credit hours.

RHET 7335 Topics in Rhetoric

Prerequisite: graduate standing. Advanced study of theoretical, practical, or pedagogical topics related to rhetoric. May be repeated for credit when topic varies.

RHET 7340 Topics in Technical, Business, and Government Writing

Prerequisite: graduate standing. Advanced study of theoretical, practical, or pedagogical topics related to technical communication. May be repeated for credit when topic varies.

RHET 7360 Internship/Practicum

Prerequisites: graduate standing, recommendation of the departmental internship/practicum coordinator. Hands-on writing experience in a professional workplace. Work hours, activities, and responsibilities must be specified in a written agreement between the employer and student in consultation with the internship/practicum coordinator. May be repeated for credit.

RHET 7370 Theory of Computer-Mediated Communication

Prerequisite: graduate standing. Studies in various theories of computer-mediated communication. Includes areas such as uses and abuses of power online and explorations of writing processes in online environments.

RHET 7371 Online Writing Instruction

This course provides instruction in the functional applications related to basic design principles for online writing courses, instructional technology, and online writing pedagogy. Students in this course will study the principles and practices of effective online writing instruction.

RHET 7372 Multimedia in Online Writing Instruction

This course provides instruction in multimedia design to enhance online writing instruction. The course includes an analysis of effective instructional technologies to promote active learning and how to assess multimedia projects. Students in this course will produce multimedia materials to supplement online writing instruction and understand how to implement and evaluate effective multimedia assignment for online writing classrooms.

RHET 7373 Special Topics in Online Writing Instruction

This course provides theory and practice in topics related to online writing instruction, including accessibility, assessment, collaboration, and administration in online writing programs. May be repeated for credit when topic varies.

RHET 7380 Writing and Service Learning

Prerequisite: graduate standing and permission of the instructor. Community service projects involving writing. Initiatives will vary according to community needs and abilities of students. Final reflection paper required. Three hours may be applied to either concentration. May be repeated for cognate credit.

RHET 7395 Cooperative Education

Prerequisites: graduate standing and recommendation of the departmental cooperative education coordinator. Hands-on writing experience in a professional workplace. Work hours, activities, and responsibilities must be specified in a written agreement between the employer and student in consultation with the cooperative education coordinator and in coordination with the Office of Cooperative Education. May be repeated for credit.

RHET 7399 Writing Research Proposals and Reports

Prerequisite: graduate standing. Reference bibliography methods, research methods, proposal and report writing; includes a research project in an area chosen by the student with a faculty sponsor from the research area responding to the project's substance and methodology.

RHET 8300 Final Project

RHET 8300 Prerequisites: completion of PTW graduate course work, consent of graduate coordinator. Attend class, develop and present final project proposal (including project description, survey of literature, timetable, names of committee members) to graduate faculty for approval; complete portfolio.

RHET 8301 Final Project

Prerequisite: RHET 8300. Completion and defense of final project, approval of supervisory committee, and acceptance of project by Graduate School.

Master of Public Administration

The Master of Public Administration (MPA) program provides professional management, analytical, and leadership skills and the understanding of public policy issues needed for management and policy positions in national, state, regional, and local governments and the nonprofit sector.

The MPA program is an integral part of the UALR Institute of Government (IOG), which houses several other units that provide internships, assistantships, engaged learning experiences, and networking opportunities for students. The curriculum combines practical applications and scholarly knowledge to provide an understanding of public management and develop the specific skills needed by governmental and nonprofit managers, analysts, and policy-makers. The program is designed for both in-service and pre-service students and can be tailored to focus on individual professional goals and career areas. For more information, please visit our website, ualr.edu/mpa.

Admission Requirements

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale) or 3.0 in the last 60 hours
- The Graduate Record Examination (GRE) or Miller Analogies Test (MAT) is required. Preferred scores on the GRE should be in the range of 153 for the verbal section of the exam and in the range of 148 for quantitative section. Students may also elect to take the MAT; the preferred score on this test is 400. Work in other graduate or professional programs will be considered in making admission decisions.
- A written statement of educational and career goals
- Résumé
- Two letters of recommendation (required)

Program Requirements

The public administration degree requires 39 graduate credit hours, which includes 24 required hours, 15 approved elective hours, and successful completion of the capstone seminar PADM 7373. Students must maintain a 3.0 GPA for all courses approved for the MPA program. In accordance with the Graduate School policy, students who fall below a 3.0 GPA will have the next 12 credit hours to raise their GPA. Students admitted conditionally must maintain a 3.0 GPA in their first 12 graduate hours of core MPA courses.

Students without professional, managerial, or research experience in public administration are urged to take a three-hour internship (PADM 8301 or PADM 8302). The internship credit is in addition to the 39 hours required for the program. Students considering pursuit of a doctoral degree are encouraged to take a six-hour thesis project (PADM 8000).

Required Courses	Electives
PADM 7130 Independent Study (1 hour credit)	PADM 7336 Managing the Not-for-Profit Sector
PADM 7301 The Profession of Public Administration	PADM 5341 Seminar in Comparative Public Administration
PADM 7230 Independent Study (2 hours credit)	PADM 7337 Public Organizational Change and Development
PADM 7303 Public Organization Theory	PADM 5353 Seminar in Public Budgeting
PADM 7324 Financial Management for Nonprofit Organizations	PADM 7338 Public Personnel Problems and Issues
PADM 7313 Human Resource Management in the Public Sector	PADM 7339 State Administration and Reform
PADM 7326 Public and Organizational Networks for Nonprofits	PADM 7340 Ethics in Public Administration
PADM 7315 Methods in Public Administration	PADM 7341 Managing Public Disputes
PADM 7330 Independent Study (3 hours credit)	PADM 7342 Public Revenue Management
PADM 7323 Public Financial Administration	PADM 7343 Organizational Partnerships and Collaboration
PADM 7331 Problems in Public Administration	PADM 7345 Urban Management and Community Change
PADM 7332 Politics and Bureaucracy	PADM 7340 Ethics in Public Administration
PADM 7333 Administrative Leadership and Public Management	PADM 7346 Current Issues in Public and Nonprofit Management
PADM 7363 Public Policy Analysis	PADM 7341 Managing Public Disputes
PADM 7334 Grant writing and Fundraising	PADM 7353 Seminar in Intergovernmental Management
PADM 7373 Seminar in Public Administration	PADM 7342 Public Revenue Management
PADM 7335 Urban Management	PADM 7380 Public Program Evaluation
	PADM 7343 Organizational Partnerships and Collaboration
	PADM 7393 Administrative Law

Graduation Requirements

- Successful completion of 39 hours of approved MPA courses with a GPA of at least 3.0,
- Successful completion of the capstone applied project paper, and
- Successful completion of the capstone seminar (PADM 7373)

Graduate Assistantships

A limited number of graduate assistantships may be awarded to students who have regular admission into the MPA program. Contact the program coordinator for more information.

Advanced Standing Program

The advanced standing program allows middle- to upper-level managers who have completed the Certified Public Manager's program (CPM) to pursue the MPA degree. Students who have completed the CPM must present a certificate that is signed by the appropriate authorities that indicates that all graduation requirements for the CPM have been completed.

Admission Requirements for Advanced Standing Program

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.75 (4.0 scale) or 3.0 in the last 60 hours.
- Scores on the GRE of at least a 153 on the verbal section and a 148 on the quantitative section, or 400 on the MAT.

Program Requirements, in addition to those of the regular MPA program

Students admitted to the advanced standing program are required to complete all required courses of the MPA program and 9 hours of electives as approved by the MPA coordinator. These students have 6 hours of elective course work waived in the MPA program.

MPA/JD Concurrent Degree Program

The MPA/JD concurrent degree program is offered with the UALR Bowen School of Law. Students enrolled in the concurrent MPA/JD program may use specified courses to earn cross-credits that may be applied toward the fulfillment of both degrees.

Students must obtain admission to both programs to receive cross-credit. Once admitted, students must submit a Declaration of Intent to Pursue Joint Degrees form, specifying which program they intend to pursue first. This form is available in the MPA program and the School of Law admissions offices. Students are not considered enrolled in the concurrent program until both programs receive a copy of the completed form.

Current MPA program students may enter the concurrent program by gaining admission to the UALR School of Law and submitting a completed Declaration of Intent to Pursue Joint Degrees form to each program prior to completing the MPA. Students currently pursuing a JD must apply for admission to the MPA program prior to receiving the JD. These students are not required to meet the GRE or MAT admission requirements for the MPA program. LSAT scores are used in lieu of those test scores.

Once students are admitted to both programs and the concurrent degree forms are on file in both offices, cross-credit for courses is earned according to the following conditions:

- Minimum grade of C in JD program cross-credit courses (up to 15 hours)
- Minimum grade of B in MPA program cross-credit courses (up to 12 hours)

MPA Courses Approved for Credit in the JD Program	JD Courses Approved for Credit in the MPA Program
PADM 7333 Administrative Leadership and Public Management	LAW 6203 Alternative Dispute Resolution
PADM 7334 Grant Writing and Fundraising	LAW 6249 Workers Compensation
PADM 7335 Urban Management	LAW 6256/6393 Civil Liberties
PADM 7339 State Administration and Reform	LAW 6257/6300 Communications Law
PADM 7340 Ethics in Public Administration	LAW 6259 Correctional Law
PADM 7353 Seminar in Intergovernmental Management	LAW 6269 Employment Law
PADM 7363 Public Policy Analysis	LAW 6279 State & Local Taxation
PADM 7380 Public Program Evaluation	LAW 6283/6387 Health Law
PADM 7385 Seminar in Public Policy	LAW 6300 Environmental Law
	LAW 6361 Employment Discrimination
	LAW 6371 Labor Law
	LAW 6372 Land Use
	LAW 6374 Legislation
	LAW 6375 Local Government
	LAW 6378 Poverty Law
	LAW 6399 Disability Law
	LAW 6404 Mediation Clinic

Courses in Public Administration

PADM 5341 Seminar in Comparative Public Administration (Elective)

Similarities, differences in bureaucratic structures, processes; analysis of organization, staffing, role of administrative systems in contrasting social, cultural contexts of the western, nonwestern worlds.

PADM 5353 Seminar in Public Budgeting (Elective)

Budgeting theory, practice; includes budgeting as allocations, process, games, rituals, history, politics; institutions, their roles in budgeting; current issues such as uncontrollability, balanced budgets, variance budgeting.

PADM 7130/ PADM 7230/ PADM 7330 Independent Study in Public Administration (Elective)

The independent study is given under the direction of a faculty member; course credit can vary from 1 to 3 credit hours depending on the workload requirements. Students take such courses to engage in specific topic of interest (which is usually not available through regular offerings), or participate in research projects for governments and non-profit agencies. A written proposal, faculty approval, and a final written report are required. No more than six hours may count as electives toward degree.

PADM 7301 The Profession of Public Administration (Required)

Introduction to the discipline of public administration covers historical development of public administration, the relationship between politics and administration, conflicting public values, defining the public interest and the appropriate level of administrative discretion, as well as professionalism, the ASPA Code of Ethics, career planning for public service, and major sources of information for professional research. Students should enroll in The Profession of Public Administration course in the first semester they are in the MPA program.

PADM 7303 Public Organization Theory (Required)

Theory, research of complex organizations, their management, administration; relevance, application of the approaches in terms of design, structure, function, processes, their interdependencies.

PADM 7313 Human Resource Management in the Public Sector (Required)

Policies, practices, issues of managing the human resource function in public organizations.

PADM 7315 Methods in Public Administration (Required)

Gathering, analyzing data; includes research design, measurement, sampling, survey and evaluation research, coding, scale and index measurement, univariate, bivariate, and multivariate analysis. Students must complete the Methods of Public Administration course with a minimum grade of C before being able to enroll in 7363 Public Policy Analysis.

PADM 7323 Public Financial Administration (Required)

Policies, concepts, practice, and analysis of public financial management issues and practices; introduction to the principles of public finance and the skills necessary for sound management of public sector financial resources. These principles include public budgeting, debt, investments, forecasting, tax administration, and intergovernmental fiscal transfers.

PADM 7324 Financial Management for Nonprofit Organizations (Elective)

This course is designed to provide students with an understanding of funding mechanisms, accounting, and federal reporting requirements for nonprofit organizations. Topics focus on nonprofit accounting, financial resource acquisition, budgeting, financial management, control and transparency in nonprofit organizations.

PADM 7326 Public and Organizational Networks for Nonprofits (Elective)

This course will discuss how nonprofit organizations can cultivate and strategically utilize relationships with government agencies, corporations, volunteer networks, and the general public. Both traditional outreach approaches and new formats, including electronic and social media, will be covered.

PADM 7331 Problems in Public Administration (Elective)

Seminar on selected topics.

PADM 7332 Politics and Bureaucracy (Required)

Relationship of politics and administration; reference to the influence of legislative bodies, parties, interest groups, other forces on bureaucracy, formation and execution of public policy.

PADM 7333 Administrative Leadership and Public Management (Elective)

Theory, practice; distinctive challenges facing managers of public organizations; includes political context, effective leadership styles, building and maintaining motivated organizations, application of successful management techniques.

PADM 7334 Grant Writing and Fundraising (Elective)

Practical, hands-on study of the concepts, strategies, and techniques of resource development in public and not-for-profit organizations; emphasis on formulation of needs and capacity studies, organization of goals and objectives, budget preparation, volunteer coordination, and outcomes evaluation.

PADM 7335 Urban Management (Elective)

Administration of urban governments in context of intergovernmental relations, limited resources, political compromise, competing citizen demands; emphasis on balancing economy and efficiency with equity concerns, especially in key policy decisions relating to quality of urban life.

PADM 7336 Managing the Not-for-Profit Sector (Elective)

Management issues unique to nonprofit sector; hands-on use of real-world examples, problems through selected readings, special projects; attention to managing volunteers, fundraising.

PADM 7337 Public Organizational Change and Development (Elective)

Theories, concepts; emphasis on applications to practical administrative problems.

PADM 7338 Public Personnel Problems and Issues (Elective)

Topical problems, issues from operational, theoretical perspectives; emphasis on political, legal, economic, social, environmental forces that shape the human resource function in public agencies.

PADM 7339 State Administration and Reform (Elective)

Specialized needs of managing, reforming state government from comparative framework; emphasis on Arkansas.

PADM 7340 Ethics in Public Administration (Elective)

Public managers today face increasingly complex ethical dilemmas, often having to weigh personal and professional values against current public opinion and the law. This course examines some of these inherent conflicts through the use of case studies to help provide a framework and process for resolving ethical issues in the public sector.

PADM 7341 Managing Public Disputes (Elective)

Prerequisites: Consent of instructor. Covers the knowledge and skills necessary for effective management of complex multi-party disputes about public issues such as land use and delivery of services. Examination of principles for managing conflict in the public sector; explores effective methods for analyzing and framing multi-party conflicts; and provides step-by-step procedures for reaching and implementing agreements.

PADM 7342 Public Revenue Management (Elective)

This course is a practical study of concepts and techniques used to manage public funds from a public manager's perspective. Reading material, class discussions, and practical exercises will emphasize public funds accounting, internal revenue control, investing, and financial statements.

PADM 7343 Organizational Partnerships and Collaboration (Elective)

Increasingly, managers, employees, and volunteers from all walks of life, in the public, nonprofit, private sectors are called upon to work in collaborative environment. Reading material, class discussions, and practical exercises will focus on how public and nonprofit managers can best facilitate production and change in such an environment.

PADM 7345 Urban Management and Community Change (Elective)

Project-driven study of urban government leadership and management in the context of community systems and collaboration. Focus on issues of regional cooperation, planning and service delivery, urban and suburban governments, and neighborhood and community development.

PADM 7346 Current Issues in Public and Nonprofit Management (Elective)

Topics in this course focus on both intellectual and practical issues facing public and nonprofit sector management over the past decade. The topics covered provide a foundation for further academic research, as well as important knowledge of the extant research for practitioners in public and nonprofit organizations.

PADM 7353 Seminar in Intergovernmental Management (Elective)

Selected aspects, such as relations between levels of government, American federalism, federal fiscal relations, comparative administration, and emerging trends in intergovernmental relations.

PADM 7363 Public Policy Analysis (Required)

Prerequisite: PADM 7315. Public policy evaluation with an emphasis on developing future policies using quantitative, qualitative techniques; includes research design, computer applications, evaluation research, and substantive policy.

PADM 7373 Seminar in Public Administration (Required)

Prerequisite: 30 hours approved course work toward MPA degree with a minimum of 18 hours of core courses completed and a 3.0 GPA for these approved MPA courses. Analysis, linkage of theories, concepts in public administration, policy; emphasis on applying research to practice of public administration.

PADM 7380 Public Program Evaluation (Elective)

Prerequisite: Consent of instructor. Techniques for evaluating how well public programs work and what sort of research is most helpful to managers who want to improve them; formal research design, process evaluations, and impact evaluations; final project requires the evaluation of public or non-profit program.

PADM 7385 Seminar in Public Policy (Elective)

Public sector theories; techniques for analyzing policies; various substantive fields that may include health, energy, environment, other policy-making areas.

PADM 7393 Administrative Law (Elective)

Legal aspects of the administrative process, effect of legal principles, processes on administrative decision making; emphasis on limitation of administrative discretion, judicial review of administrative decisions.

PADM 8000 Thesis in Public Administration (Elective)

Prerequisites: 24 graduate hours; consent of coordinator. Preparation of a thesis demonstrating scholarship on some aspect of public administration, normally in-depth treatment of an applied management concern; must be approved by a thesis committee (chairperson and two faculty members selected by student with coordinator's approval). Variable credit of one to six hours. Concurrent enrollment in final three to six hours with coordinator's approval.

PADM 8301 Internship I in Public Administration (Optional)

Prerequisites: 30 graduate hours; consent of coordinator. (For students with no public service background.) Practical, first-hand experience in government or nonprofit sector; usually requires four to six months full-time work in appropriate position, management paper reflecting professional and scholarly development.

PADM 8302 Internship II in Public Administration (Optional)

Prerequisites: 30 graduate hours; consent of coordinator. (For students with no public service background.) Practical, first-hand experience in government or nonprofit sector; usually requires four to six months full-time work in appropriate position, management paper reflecting professional and scholarly development.

Graduate Certificate in Strategic Communication

This graduate certificate serves mid-career professionals who need to update their skills or re-tool given the job market and changes in the field of mass communication. This program is designed for the mid-career professional who has a bachelor's degree and

- Would like to update his or her skills in strategic communication-PR;
- Has been working in journalism or another field and wants to become more familiar with strategic communication-PR;
- Has changing job requirements that make a background in strategic communication -PR desirable; or
- Would like to acquire a background in strategic communication-PR in order to make a possible career change.

Admission Requirements

Students entering this program must have a bachelor's degree from an accredited institution and meet remaining requirements for admission to the UALR Graduate School.

Applicants to this certificate program also must fulfill the same application and admission requirements as those pursuing the Masters of Arts in Mass Communication from the School of Mass Communications.

Program Requirements

The Graduate Certificate in Strategic Communication requires 18 credit hours for completion. The following courses are required:

MCOM 5380 PR Writing

MCOM 5381 PR Cases

MCOM 7350 Public Relations for 21st Century Non-Profits

SPCH 7350 Seminar in Effective Crisis Communication

SPCH 7312 Organizational Communication

Any 7000-level Mass Communication course selected in consultation with student's adviser.

Graduation Requirements

Cumulative graduate GPA of at least 3.0 in an approved program of study as outlined above.

CLINTON SCHOOL OF PUBLIC SERVICE

Sturgis Hall

(501) 683-5200

Master of Public Service

The University of Arkansas Clinton School of Public Service (UACS) was established by the University Board of Trustees on January 29, 2004, as a new academic unit within the University of Arkansas (UA) System. The Master of Public Service (M.P.S.) degree program is accredited through a consortium among the University of Arkansas, Fayetteville (UAF); the University of Arkansas at Little Rock (UALR); and the University of Arkansas for Medical Sciences (UAMS).

Vision of Professional Public Service

- We believe in the right of all individuals, without exclusion, to participate fully and democratically in the social, cultural, economic, and political systems that affect their lives. Therefore, professional public servants must understand, engage, and transform these complex systems to ensure equity, eliminate injustice, and effect positive social change.
- We believe in the right of all individuals to reach their full potential and to embody the spirit of democracy. Therefore, public servants must join with those who are marginalized so they are advocates for bettering their own lives and developing their own communities.
- We believe in moral leadership that includes integrity, compassion, and a commitment to social justice. Therefore, public servants must listen to and learn from diverse groups, compromise and build alliances, and take strategic and decisive action to advance the common good.

Mission

The mission of the University of Arkansas Clinton School of Public Service is to educate and prepare professionals in public service who understand, engage, and transform complex social, cultural, economic, and political systems to ensure equity, challenge oppression, and effect positive social change.

We will realize our mission by:

- Operating at the intersection of theory and practice.
- Establishing, nurturing and maintaining a community of students, scholars, and experienced public servants.
- Creating and sustaining partnerships and alliances with public, for-profit, non-profit, philanthropic, and volunteer sectors.
- Systematically evaluating the School's effectiveness in fulfilling its mission.

The Campus

The UACS is located in the historic Choctaw Station of the Rock Island Railroad, now part of the William Jefferson Clinton Presidential Center and Park in Little Rock, Arkansas. A generous grant from the Roy and Christine Sturgis Charitable and Educational Trust funded the renovation of the Choctaw Station, and the building was dedicated as Sturgis Hall upon its opening in Fall 2004.

Sturgis Hall has two classrooms fitted with advanced audiovisual technology, a commons, student lounge area, library reading room, administrative and faculty offices, student carrels, and conference areas. UACS has opened additional classrooms and office space in the River Market District of downtown Little Rock. UACS students also enjoy campus privileges at three UA System schools - UAF, UALR, and UAMS. To learn more about the UA System and our parent campuses, please visit the UA System website at www.uasys.edu.

Admission Requirements

A description of the admissions process and all admissions forms are available on the Clinton School website (clintonschool.uasys.edu/admissions).

Admission decisions for the MPS program will weigh the applicant's academic background (courses and grades), graduate entrance exam scores, and commitment to community service and civic engagement. The successful applicant will have public service experience before, during, or following undergraduate studies. The UACS recommends, though does not require, that applicants have at least a 2.85 cumulative grade point average in their baccalaureate-level courses. The UACS embraces diversity and encourages applications from all regardless of age, race, color, gender, national or ethnic origin, political or religious affiliation, sexual orientation, or physical ability. The admissions process is self-managed. This means that applicants are responsible for ensuring all required materials are received prior to the stated deadline. This also means that it is the responsibility of applicants to review their applications, as a whole, to ensure applications convey experiences, interests, and strengths. (subsequently forwarded to UACS) is not acceptable.

In addition to the completed application, please submit the following:

- Three short-answer essays. Please see website for required essay questions. (submit by mail)
- A current résumé or curriculum vita that includes a description of public service experiences (submit by mail)
- Official transcripts for all baccalaureate and any graduate/professional school performance (originals must be sent from awarding institution)
- Graduate admissions test scores. The GRE and MAT (code 6368) and GMAT (code 9575) are acceptable in fulfilling this requirement, and scores should be sent directly to UALR. The LSAT (code 6368) may be used only when applying for the concurrent Juris Doctor/Master of Public Service degree program. Applicants are required to submit a photocopy of the official test score transcript by mail to the Clinton School, as well as submit the scores electronically using the appropriate submission code. Please use the appropriate code, as noted, when reporting scores. Scores more than five-years-old will not be accepted. Students who have completed a graduate degree are not required to submit graduate admissions test scores.
- Three letters of recommendation are required: one addressing the applicant's academic preparation, one focused on the personal characteristics that make the applicant well-suited for graduate education, and one affirming the applicant's public community service record. All letters of recommendation must be accompanied by a "Letter of Reference" form, completed and signed by the individual writing the recommendation. The form is available for download on the UACS website.
- An application fee of \$50 (make check payable to UA Clinton School of Public Service)
- Applicants must also be available for interviews in person or via video conference calls at the discretion of the Admissions Committee.
- In addition to the above requirements, all international applicants, including resident and non-resident aliens, whose native language is not English and who do not have an undergraduate degree from a regionally accredited U.S. college or university, are required to take the Test of English as a Foreign Language (TOEFL) and submit a minimum score of 550 for the paper-based examination or 79 for the internet-based examination. The test must have been taken within the two years immediately preceding the requested year of admission. Before any action is taken on an international application, applicants are required to submit both a photocopy of the official TOEFL test score transcript by mail to the Clinton School, as well as submit an electronic transcript from the Educational Testing Service (use UALR school code: 6368). Submit score transcripts both by mail and electronically. Completed international applications may also be asked to submit a Certificate of Finances prior to receiving an admission decision.

All students must be enrolled on a full-time basis.

Tuition, Fees and Estimated Costs

Tuition and fees are \$400 per semester hour for residents and non-residents; an additional fee of \$20 is assessed per credit hour. To cover instructional equipment, technology, library services, and other miscellaneous charges. Additional charges may be assessed on the consortium schools (UAF, UALR, UAMS) for student activities, sports and recreational events, parking, housing, health services, and the like. Please visit the UACS website for more information.

Scholarships

The Clinton School awards financial aid in the form of scholarships. The amount awarded varies according to need, merit, and the availability of funds.

Program Requirements

The MPS degree requires forty (40) credit hours for graduation. Twenty-nine (29) credit hours are required from core and elective courses with the remaining eleven (11) from practicum, international, and capstone.

MPS Curriculum (19 hours)

Core Courses

CSPS 7115 Professionalism in Public Service (1 credit hour)

A career in public service requires a personal dedication that leads to building stronger relationships, stronger communities and a more workable and responsive world. This seminar is designed to help students gain knowledge and experience to further their public service careers in the areas of nonprofit, governmental, political, volunteer, or private sector work. The material in this course builds upon the knowledge and skill sets learned in the other courses and compliments the students' ongoing fieldwork. The seminar will draw upon a wide variety of resources and activities in an effort to enhance the students' personal and professional growth.

CSPS 7201 Ethical and Legal Dimensions of Public Service (2 hours)

Ethical and legal considerations shape every aspect of effective public service. This course will provide an overview of the primary ethical principles and legal concepts that guide difficult decisions in the public realm. Traditional academic study of ethical and legal theory will be combined with practical approaches to problem solving. Students will explore issues of economic, political, and social justice through case studies of current issues. Students will construct cases that are relevant to their own fields and present them to the class, identifying ethical and legal constraints on decision-making and implementation.

CSPS 7223 Foundations of Public Service (2 credit hours)

This course covers the history, contexts and practices of public service. Students will define public service in a global context and reflect on their past and future roles as public servants. The course will explore the various roles public servants play and the various contexts in which they practice public service.

CSPS 7303 Communication and Social (Ex)Change (3 credit hours)

Being an effective public service professional requires having the knowledge and skills to act in situations in positive and productive ways that allow for authentic participation by those who may be affected by policies, processes and actions. This course focuses on the constitutive nature of communication to create and maintain equitable social worlds. Students will explore various theories of democracy, civic participation, and public issue and policy formation, analyze case studies to understand the complexities of creating and maintaining equitable social worlds, and engage in exercises to develop effective facilitation skills.

CSPS 7331 The Theory and Practice of Global Development (3 credit hours)

This course provides an overview of three intersecting institutions, which will be useful when conducting public service in the global south, and democratizing societies. These institutions include the State, the market and civil society. Discussions begin with a lively debate between scholars over what development means and then moves on to explore the theories of why some countries are rich and some poor. The course examines the interventions from colonialism to globalization assessing the efforts of northern states, multi-laterals and non-governmental organizations as they attempt to solve the challenges of poverty, disease, conflict, famine, and gender inequality in the global south.

CSPS 7333 Program Planning and Development (3 credit hours)

This course provides students with analytical tools that enhance their skills in diagnosing problems and formulating solutions within organizations and communities. The underlying premise is that well prepared public service leaders can increase their effectiveness in contributing to the well-being of their communities by equipping themselves with these analytical tools. Instruction will focus on evaluating community assets as a balance to assessing community need. Underlying values of social justice and collaborative problem-solving provide a benchmark for these activities.

CSPS 7334 Program Evaluation (3 credit hours)

This course builds on the skills students gain in Program Planning and Development and Field Research in Public Service. The primary objective is for students to learn and apply tools that are frequently used to determine whether public policies and programs at local, national and international levels are achieving their intended objectives. In this course, students learn how to use appropriate research methods to evaluate public and not-for-profit programs and entities (e.g., non-profit organizations, foundations, NGO's), how to develop strategies for doing evaluation, and how to manage evaluation projects. Prerequisites: CSPS 7333 Program Planning and Development and CSPS 7334 Field Research in Public Service.

CSPS 7335 Field Research in Public Service (3 credit hours)

This course introduces students to the concepts and principles of field research and is taught in conjunction with their first semester of Practicum. Topics include the key components of collaborative field research, ethics in field research, developing a research focus and research question, conducting a literature review, gathering data and data management, and analyzing data and reporting.

Social Change Option (3 credit hours)

To earn these credits, students will have the option of several courses related to the dynamics of social change. Current offerings include:

CSPS 7310 Philanthropy Leadership and the Non-profit Sector (3 credit hours)

Philanthropic intuitions often aim giving toward major societal issues including environmental justice, quality education, race relations, immigration, health care and public health with the goal of helping individuals and communities in need. More foundations are widening their focus from just meeting needs to building sustainable local change. This course will explore community philanthropy as the giving and sharing from within communities that is characteristic of positive change and lasting development. It will examine the principles, standards and practices of community philanthropy and study the leadership role of foundations and nonprofit organizations in creating social change.

CSPS 7313 Dynamics and Complexities of Social Change (3 credit hours)

The purpose of this course is to help you understand the dynamics and complexities of social change processes, in both domestic and international contexts. We focus on the key theoretical undercurrents, strategic frameworks, debates and dilemmas, applications and case studies. Specifically, we examine contemporary praxis in organizing for social change in order to serve the public good, and reflect on the role of personal change and transformation in making such happen.

Field Service Projects**CPSP 7240 Practicum I (2 hours)**

CPSP 7340 Practicum II (3 hours) Prerequisite: Completion of CPSP 7240 with a grade of at least a C.

The practicum is a year-long required course in the first year of the MPS degree program. The practicum is a field service course that places students in public service projects where students apply the knowledge and skills they are learning at the School. Field service projects work to address systemic issues identified by organizations such as the Arkansas Community Foundation, the Department of Health and Human Services and non-profit organizations. Students must complete both semesters of the practicum, two credit hours in the fall semester and three credit hours in the spring semester.

CPSP 7320 Capstone (3 hours) (prerequisite: Completion of CPSP 7331 with a grade of at least a C)

The capstone program is designed to provide students with an opportunity to integrate the knowledge and skills gained from course and field work into an in-depth final project. The capstone is carried out by completing a public service project that builds on the cumulative knowledge gained from experiences at UACS. Students have three (3) semesters to complete Capstone once they enroll in the course.

**CPSP 7330 International Public Service Project (3 hours)
(prerequisite: Grade of at least a C in all completed core
courses)**

The international public service project is designed to provide a practical “hands on” experience in public service outside the U.S. or in a domestic setting with an international focus. The purpose of the project is to provide an opportunity for students to experience some type of public service that stretches the boundaries of their existing cultural and experiential world. Students will be expected to engage in a project that will build on the knowledge and skills developed in the first two semesters of the MPS curriculum. Working within the time frame of the summer session, the student is expected to make a substantial contribution in planning and implementing the project to which he/she is assigned. Three credit hours will be awarded for work completed satisfactorily.

Electives (6 hours)

The student’s faculty advisor will work with the student to choose a group of elective courses that are of interest to the student and that will be appropriate for the student’s future career. Elective courses help develop a specialty or concentration focus and have the potential to significantly sharpen the area of professional expertise. The faculty advisor will help the student concentrate on the overall learning objectives for these courses, integrating them with the practicum and capstone.

Concurrent Degrees

MPS/JD Concurrent Degree

Students at UACS and the UALR Bowen School of Law may pursue the Juris Doctorate (JD) and MPS degrees under a combined degree program which allows cross-credit for courses. The combined degree program offers a potential savings of credit hours in the total credit hours otherwise required for both degrees. A student in the combined degree program must complete all the requirements for the JD degree as specified by the Bowen School of Law and all requirements for the MPS degree as specified by UACS.

MPS/MPH Concurrent Degree

Students at UACS and the UAMS Boozman College of Public Health may pursue the Master of Public Health (MPH) and MPS degrees under a concurrent degree program which allows cross-credit for courses. The concurrent program offers a potential savings of credit hours in the total number of credit hours otherwise required for both degrees. A student in the combined degree program must complete all the requirements for the MPH degree as specified by the Boozman College of Public Health and all requirements for the MPS degree as specified by UACS.

MPS/MBA Concurrent Degree

Students at UACS and the University of Arkansas Sam M. Walton College of Business may pursue the Master of Business Administration (MBA) and MPS degrees under a concurrent degree program. A student in the program must complete all the requirements for the MBA degree as specified by the Walton College and all requirements of the MPS degree as specified by UACS.

NONPROGRAM

GRADUATE COURSES

Many departments that do not offer graduate degrees provide graduate courses for other degree programs such as those in applied science, computer science, education, integrated science and mathematics, mass communication, and interdisciplinary studies. Degree-seeking students should check with their advisors and/or the UALR Graduate School to determine which of these courses may be accepted toward graduation requirements, to inquire about prerequisites, or other requirements for these courses.

Courses in Anthropology

ANTH 5155 Forensic Anthropology Laboratory

Prerequisite or corequisite: ANTH 5355. Hands-on experience in use of anthropometric, morphological, and statistical techniques employed in age and stature estimation as well as sex and race determination; also includes forensic archaeology, treatment and proper handling of forensic anthropology evidence, and writing a forensic anthropology report.

ANTH 5310 Urban Anthropology

A survey of urbanization throughout the world, with emphasis on urban adaptation of rural migrants and the phenomenon of urbanization in emerging nations.

ANTH 5316 Linguistic Anthropology

Introduction to the subfield of linguistic anthropology. Examines the impact of linguistic structure on culture, socioeconomic factors in linguistic variation, intercultural and intracultural verbal and nonverbal communication. Also examines the theories and methods of descriptive anthropological linguistics applied to non-Indo European languages and introduces the student to structural linguistic analysis. Required for majors.

ANTH 5320 Sociocultural Change

Sociocultural change resulting from contact of acculturation, question of acceptance and rejection, pressures toward change, the role of the individual, appraisal of anthropological information and theory in a changing world.

ANTH 5355 Forensic Anthropology

Application of human variation knowledge to legal matters; emphasis on human skeletal variation; theoretical basis of sex determination, age estimation, and ethnic origin classification based on skeletal characteristics; also includes fire death scene investigation, interval since death, and forensic archaeology.

ANTH 5382 Anthropological Theory

Examines the range of theories used to describe and explain variability in sociocultural phenomena. Explores the organization of particular theories as well as issues that separate divergent theories. Major theoretical orientations to be explored include evolutionism, Marxism, Freudianism, structuralism, structural functionalism, ethnoscience, diffusionism, historical particularism, cultural ecology, sociobiology, and cultural materialism.

ANTH 5398 Special Topics in Anthropology

Selected topics in anthropology.

ANTH 5485 Ethnographic Methods

Lecture, laboratory. Data-gathering methods, analyses in native or ethnic settings.

ANTH 5600 Principles of Archaeological Research

Lecture, laboratory. Methods, theory; Arkansas prehistory, public archaeology.

ANTH 7300 Seminar in Anthropology

Prerequisites: graduate standing and permission of the instructor. Readings in professional literature and extensive discussions under faculty guidance. Course may be repeated for credit.

ANTH 7305 Teaching Internship

Prerequisites: consent of the instructor. Students will assist with the teaching of an undergraduate course. They will have opportunities to present course material, lead activities and review sessions, facilitate discussions, and prepare a syllabus. Three credit hours.

Courses in English

ENGL 5116, 5216, 5316 Seminar in Creative Writing

Prerequisites: ENGL 3398, 3399, or consent of instructor. Study and practice in creative writing. Class discussion/studio workshop/field placement. May be repeated when the topic varies. Offered in summer.

ENGL 5202 Teaching Literature in Secondary Schools

A methods course which is team taught by the English and rhetoric and writing departments. The topics will include making classroom presentations, managing small group work, responding to student writing, evaluation, and using secondary school literature and composition textbooks, approaches to teaching literature, and writing as a way to reading. It should be taken in conjunction with RHET 5202.

ENGL 5315 World Englishes

A study of national, regional, and social varieties of English with special attention to the political, cultural, and economic issues facing the use of English as a world language or lingua franca. Recommended prerequisite: ENGL 3311 or ENGL 3313. Dual-listed in the UALR Graduate Catalog as ENGL 5315. Three credit hours.

ENGL 5317 Literary Linguistics

An application of recent theories and methodologies of linguistics and language arts to the reading, analysis, and appreciation of literature. Recommended prerequisite: ENGL 3311 or ENGL 3313. Dual-listed in the UALR Graduate Catalog as ENGL 5317. Three credit hours.

ENGL 5324 Shakespeare

Selected works, including the major comedies and tragedies. Three credit hours.

ENGL 5325 Teaching Shakespeare

Prerequisites: graduate standing, undergraduate major or minor in English or equivalent consent of instructor. Pedagogical focus on teaching Shakespeare's plays in the elementary and secondary schools by using performance activities. Special emphasis on the four Shakespearean plays most often taught (Romeo and Juliet, Julius Caesar, Macbeth, Hamlet); one comedy and one history play will be included by titles, may change each time course is offered.

ENGL 5328 Seventeenth-Century Literature

English poetry and prose from 1600 to 1660, with emphasis on Donne and Milton. ENGL 5332 Mid and Late Eighteenth-Century Literature Later Pope, the novel, Johnson. Three credit hours.

ENGL 5341 Romantic Poetry

Representative works of Blake, Coleridge, Wordsworth, Byron, Keats, and Shelley. Three credit hours.

ENGL 5343 Victorian Literature

Prerequisites: graduate standing. Representative writers, including Tennyson, Browning, Arnold, and Hopkins. Three credit hours.

ENGL 5355 Readings in European Fiction

Prerequisite: graduate status. This course will focus on representative readings in European fiction from the eighteenth century to the present (in translation).

ENGL 5364 Modern Poetry

Representative readings in modern English and American poetry including works by Hopkins, Yeats, Frost, Sandburg, and Eliot. Three credit hours.

ENGL 5365 Modern Novel

Reading of American and British novels of the Modernist Period. Three credit hours.

ENGL 5367 Short Story Survey

Wide reading of American and foreign short fiction. Three credit hours.

ENGL 5369 The Form and Theory of Poetry

Survey of the form, techniques, and theories of poetry, emphasizing the views of poets. Three credit hours.

ENGL 5370 Seminar in Language or Literature

Prerequisites: graduate standing, consent of instructor. Selected topics in language or literature. May be repeated when the topic differs. Offered in fall. Three credit hours.

ENGL 5381 American Fiction

Representative readings in the development of American literature. Three credit hours.

ENGL 5398 Fiction Writing II

Prerequisites: ENGL 2336, 3319, or consent of the instructor. Continued study and practice in the writing of fiction. Class discussion/workshop and individual conferences. Three credit hours.

ENGL 5399 Poetry Writing II

Prerequisites: ENGL 2336, 3319, or consent of the instructor. Continued study and practice in the writing of poetry. Class discussion/workshop and individual conferences. Three credit hours.

ENGL 7100, 7200 Independent Study

Students will work with an instructor on a project designed to apply critical thinking skills to specialized knowledge in one of the areas of English literature or linguistics. Students may work on evaluating primary and secondary sources, exploring one or more critical methodologies, and/or constructing research plans for further work. Limited to a total of three credit hours. Prerequisites: graduate standing, a current secondary teaching job, or secondary certification in English or a related area. For graduate students and working teachers, each of these courses focuses on one or more literary works or areas commonly taught in secondary schools. Each course covers particular texts, current interpretations and approaches, useful teaching methods, resources currently available (videos, CD-ROMs, etc.) and classroom assignments and activities.

ENGL 7312 Linguistic Theory

Prerequisite: graduate standing (assumes knowledge of traditional grammar). Examination of English grammar in current objective, scientific terms; focus on how English sentences are structured.

ENGL 7320 Seminar in Linguistics

Prerequisites: graduate standing, background in formal language analysis related to the seminar topic or consent of instructor. Advanced topics in linguistic analysis including syntax, semantics, phonology, morphology, historical linguistics, dialectology, sociolinguistics, language acquisition; work with primary sources in the area of study. May be repeated for credit when the topic varies. Offered on demand.

ENGL 7360 Seminar in Literature

Prerequisites: graduate standing; undergraduate English minor or equivalent or consent of instructor. Major author in either British or American literature; author may change each time course is offered.

ENGL 7369 Seminar in Analysis of Literary Form

Prerequisites: graduate standing; undergraduate English minor or equivalent or consent of instructor. Selected literary texts representing a variety of eras, modes; substantial body of criticism of those texts reflecting a variety of methods, theories.

ENGL 7150, 7250, 7350 New Perspectives in Teaching Literature

Courses in Applied Music

MUAP 7214 Advanced Functional Piano

Prerequisites: graduate standing, pass piano functional exam. Intensive review of functional skills; development of harmonization skills, accompanying, transposition; uses common practice period, 20th-century elements.

MUAP 7325 Advanced Choral Conducting

Prerequisites: undergraduate basic and choral conducting courses or consent of instructor. Techniques required in performing major choral works of selected musical periods, specific composers, different genres of choral form from inception to present.

Courses in Music Education

MUED 5192, 5292, 5392 Special Studies

Prerequisites: graduate standing, consent of instructor. Concentration on a specific area of music or music education. Offered on demand.

MUED 5252 Perspectives on Careers in Music

Prerequisite: must have passed the upper-level qualifying jury in MUPR, as well as MUTH 2391 and MUTH 2292, or consent of instructor. Course objective is to broaden the student's understanding of the range of careers in the world of professional music. The course will explore music as both a creative endeavor and as a product. Students will learn how music progresses from artistic creation to consumable product, and how the participants in the music business make a living utilizing skills in marketing, performance, teaching, recording, technology, venue management, etc. MUED 5252 is not open to students with credit for 4252. Two credit hours.

MUED 7112 Vocal Pedagogy

Methods, materials for teaching voice in private studio, institution; application of fundamental vocal techniques to public school choir; practical application of techniques through observation of demonstrations, supervised teaching.

MUED 7322 Advanced Elementary Music Education

Prerequisite: MUED 3322, 3332, or equivalent. Current principles, practices in elementary school music; most recent methods and materials, their applications to different school systems.

MUED 7332 Fine Arts Concept

Prerequisites: graduate standing, BA in music or art. Teaching fine arts survey courses in public schools; elements, genres of visual arts, music, theater, dance, films; interrelated changing art styles in context of culture, cultural history; language, criteria for artistic criticism.

MUED 7333 Fine Arts Pedagogy

Prerequisites: MUED 7332; Instructional Resources in Education 4301 or 7302. Skills for planning, teaching survey of fine arts curricula.

MUED 7382 Concepts of Music

Prerequisites: graduate standing, consent of instructor. Acoustical, psychological aspects of music; emphasis on problems of perception, experimental aesthetics, musical function, measurement and diagnosis of music ability; related literature of experimental investigation.

Courses in Private Instruction in Music

MUPR 7100, 7200 Applied Music-Private Instruction

Prerequisite: graduate-level proficiency demonstrated through audition before music faculty. Jury examinations required at the end of each semester. One hour of credit for a half-hour lesson each week; two hours of credit for an hour lesson each week. Consult the department for guidance in registering for any of these areas: baritone, flute trumpet, bassoon, French horn, tuba, cello, oboe, viola, clarinet, organ, violin, euphonium, piano, and voice.

Courses in Music Theory

MUTH 7370. Advanced Analysis

Prerequisite: MUSC 1211, 1310, 1510, 1520, 2510, or equivalent. Common practice period in western music; 20th-century techniques; summary of topics such as voice leading, doubling, chord-choice criteria, variety of techniques for analysis; integration of topics covered at undergraduate level; introduction of aesthetics, theory pedagogy using computer.

Courses in Political Science

POLS 5308 Topics in Urban Studies

Cross-listed with URST 5308.

POLS 5310 Seminar in American National Government

Research seminar dealing with selected aspects of U.S. politics and government. It gives students the opportunity to bring analytical skills and substantive knowledge gained in prior courses to bear on a selected topic of importance, and involves a substantial writing project. Three credit hours.

POLS 5320 American Foreign Policy

Examines the goals and motivation of American foreign policy and relations, the actors and processes that shape policies and decisions, and selected foreign policy problems and issues. Three credit hours.

POLS 5330 U.S.-Panamanian Relations: Decisions and Documents

Prerequisites: graduate status; consent of the instructor is also required for on-line students. U.S.-Panamanian relations during the late 19th and 20th centuries, in the context of U.S.- hemispheric relations and U.S. to global power status. Through course modules on canal treaties and historic turning points, students master the background necessary to conduct their own research projects based on archival materials. The course will focus on benchmark decisions, which include responses to opportunities and crises in Panama, decisions to agree or refuse to negotiate canal treaties, and decisions about alternative control regimes for the Panama Canal. Major themes of the course include perceptions of national interests, adaptation to changing international realities, conflict resolution, and bargaining behavior during negotiations.

POLS 5333 Seminar in State Politics

Research on selected aspects of state politics such as comparative policy making, political culture variations, and problem solving. Three credit hours.

POLS 5341 Seminar in International Relations

Special problems, issues, or trends in the study of international relations. May be repeated with a change of subject and permission of the department chairperson. Cross-listed as an undergraduate and graduate seminar.

POLS 5343 Seminar in Local Politics

Research on selected aspects of local politics such as community power structure, local autonomy, and comparative administration. Three credit hours.

POLS 5345 Clinton Presidency

This course explores the presidency of Bill Clinton from several perspectives, all grounded in the discipline of political science: the administration's policy making; presidential power and leadership; crises and turning points in the Clinton administration; campaigning and communications skills of the president; the administration's relations with the press, political parties and groups; and the legacy of the Clinton presidency.

POLS 5348 Internship

This course is a public service learning experience that gives students the opportunity to blend practical concepts learned on the job with their academic course work in political science. Students attend periodic seminars and participate in a substantial writing assignment aimed at fully integrating and synthesizing their public service experience. Three credit hours.

POLS 5356 Urban Policy and Government

Cross-listed with URST 5356. Course explores urban policy-making and urban government from a critical, analytical urban studies perspective. Considers historical and modern variations of urban government and intergovernmental relations and how this relates to urban policy making, political will and quality of urban life issues.

POLS 5370 Politics of the Middle East

The course covers the politics and political dynamics of the Middle East, introducing the student to the main issues and actors (state and non-state) of the contemporary Middle East. The course explores the nature of contemporary politics in the region including the impact of the complex relationships among great power intervention, economics, ethnicity, nationalism, and religion.

POLS 5376 Global Terrorism

The course will cover the history, contemporary nature and defense against terrorism, with a particular emphasis on the post 09/11 "war on terror." Graduate students will conduct additional research and write a research paper on advanced topics in terrorism. Students who took the course at 4000 level cannot take it again at the 5000 level.

POLS 5380 Classical Political Theory

Major political ideas and doctrines of political thinkers from Plato to Montesquieu, with emphasis on the contributions of each to the theory and practice of government. Three credit hours.

POLS 5387 Great Decisions in American Foreign Policy

A lecture and discussion course that examines eight current foreign policy issues. The course explores the origin of each issue, alternative proposals and strategies for American foreign policy, other nations' proposals and strategies, and the consequences of past and current international problems for the United States and the world community. Three credit hours.

POLS 5390 Modern Political Theory

A continuation of POLS 5380. From Edmund Burke to the present, with emphasis on the more recent political theories and systems of democracy, communism, and socialism. Three credit hours.

Courses in Psychology**PSYC 5300 Drugs and Behavior**

Effects of drug administration on ongoing behavior, learning; emphasis on drugs of clinical application, usage.

PSYC 5310 Counseling Psychology

Field of counseling, its philosophy; emphasis on counseling relationship; includes educational, vocational, industrial, personal counseling.

PSYC 5311 Lifespan Development Psychology

This course will use an Eriksonian stage theory to examine the developmental changes characteristic of adults in our society. State as an interaction between physical changes and social constructs will be stressed, and the problems of careers and mature relationships will be examined.

PSYC 5325 Personnel Psychology

Areas of industrial psychology generally concerned with personnel work; includes predictors, criteria, related issues; statistical analysis for selection, placement; testing; interviews, other nontest procedures; personnel development; attitude measurement.

PSYC 5330 Learning and Memory

Fundamental principles; includes parameters of reinforcement, secondary reinforcement motivation, extinction, discrimination, generalization.

PSYC 5336 Cognitive Development

An introduction to the theories and research on the development of thinking in infants, children, and adolescents.

PSYC 5340 Shaping of Human Behavior

Applying learning, conditioning principles to human behavior; includes behavior modification, operant conditioning, contingency management in shaping the behavior in a variety of real-life settings (e.g., school, home, work, interpersonal relations); ethical issues involved in changing human behavior.

PSYC 5345 History of Psychology

This course presents an overview of the development of the contemporary science of psychology, connecting it with developments in intellectual history and the history of science. It explores the philosophical and physiological roots of psychology as well as the major questions regarding human nature that psychologists, along with other social scientists, have repeatedly addressed.

PSYC 5365 Psychological Disorders of Childhood

Prerequisite: condition 1. Nature, causes, treatment of disturbed behavior in children.

PSYC 5385 Psychology and Public Health

This course will consider how psychological science and applications can help shape community health and public health efforts. Issues related to health psychology research, community psychology, preventive health, and public health practice will be considered. The course will explore innovative public health models in which psychological science or applications have been prominent.

PSYC 5460 Psychological Tests: Composition and Interpretation

Reliability and validity, norms, standardization; composition, interpretation of frequently used intelligence, personality, vocational interest, other tests. Three hours lecture, two hours field research per week.

PSYC 7230, 7330, 7430 Graduate Seminar in Psychology

Readings in professional literature, extensive discussions under faculty guidance. Topic determined by student interest; may be repeated for credit with coordinator's permission.

PSYC 7320 Advanced General Psychology

Overview of psychology sub-specialties; emphasis on critical analysis of theory, research to understand values, limitations of each approach. Various faculty members present lectures on special topics.

Directed readings, individual discussion with a faculty member. May be repeated for credit with coordinator's permission.

PSYC 7335 Industrial/Organizational Psychology

Basic concepts: content-includes issues in personnel, testing, organizations, human factors, professional questions.

Courses in Sociology

SOCI 5301 Computer Use: Packaged Programs

Prerequisites: SOCI 2381, 3385. Using various statistical and graphics packages, such as SPSS and SAS, to research designs. Students select an appropriate analysis from the Institute for Social Research, General Social Survey, or other appropriate data base and write up the results of this analysis. Offered on demand.

SOCI 7370 Program Planning and Research in Organizations

Program planning issues, such as design, decision making, budgeting, community organizing, organization environment relations, intergovernmental relations, personnel management, in a wide variety of complex organizations; includes research methodologies appropriate to organizational planning, implementation, and evaluation.

PSYC 7321, 7621 Independent Study in Applied Psychology

SOCI 7375 Program Evaluation

Prerequisites: SOCI 3175, 3375. Application of research methods to evaluation, assessment of programs in education, social work, corrections, health, mental health, job training, community action, etc. Students design, conduct evaluation research on an ongoing program.

SOCI 7390 Independent Study

Prerequisite: Consent of Instructor. Consent will be based on intersection of faculty expertise and student/program need. Specialized instruction on sociological topic.

Courses in Theatre

DRTH 5140, 5240, 5340 Special Topics in Theatre Arts

Topics may include plays, playwrights, theatrical periods, styles, production methods; emphasis on directed readings, research, casebook studies. Content changes each time offered. Offered on demand.

Courses in Philosophy

PHIL 5280, 5380 Topics in Philosophy

Prerequisite: graduate standing, consent of instructor. In-depth study of selected major problems in philosophy or the works of individual philosophers or groups of philosophers. Content changes on demand. For descriptive title of the content, refer to the UALR Schedule of Classes.

PHIL 5373 Philosophy of Race

This course is an introduction to the philosophy of race and ethnicity. It will explore the philosophical assumptions behind concepts of race, including 1) historical origins and contemporary views of race and racial identities; 2) the intersection of racism with other forms of oppression; or 3) race in the history of philosophy.

PHIL 5385 Seminar in History of Philosophy

This seminar allows participants to pursue intensive study of a pivotal movement or central figure in the history of philosophy or the development of a particular idea. Topics may include Plato, Hellenistic Philosophy, Stoicism, Skepticism, Ancient and Modern, German Idealism, Marx and Marxism, Rationalism, Logical Positivism, Analytic Philosophy, or Post-structuralism.

PHIL 5290, 5390 Independent Study

Prerequisites: graduate standing, consent of instructor. Selective reading and written project on a topic submitted by the student and approved by the instructor before registration. Open only to students with demonstrated ability to write research papers of superior quality in philosophy. Applicants unknown to the instructor should submit academic transcripts and samples of their research papers in philosophy.

PHIL 7310 Current Philosophical Issues

An examination of the impact of philosophical writings on contemporary culture. The course will address such topics as: the ethical and legal ramifications of recent scientific advances; the just distribution of resources within the context of the current global economy; and the basis of justification for human, animal, and environmental rights.

ABOUT THE UNIVERSITY OF ARKANSAS AT LITTLE ROCK

History

The University of Arkansas at Little Rock was founded in 1927 as Little Rock Junior College under the supervision of the Little Rock Board of Education. The first semester there were eight instructors and about 100 students. By 1929, the college was accredited by the North Central Association of Colleges and Schools, a status it has kept through changes in size and status.

Housed at first in public school buildings, the college moved in 1949 to its present location in southwest Little Rock on a beautifully wooded site donated by Raymond Rebsamen, a Little Rock businessman. By that time, the college was the sole beneficiary of a continuing trust established by former Governor George W. Donaghey.

The institution began a four-year degree program in 1957. At that time, the University was independent and privately supported under a separate board of trustees and took the name Little Rock University.

In September 1969, after several years of discussion and study, Little Rock University merged with the University of Arkansas System to create the University of Arkansas at Little Rock. That was a major step in the creation of a multi-campus system. Within this structure, UALR is state supported, operationally separate, and specifically oriented toward serving the educational needs of Arkansas.

The University of Arkansas merger began a period of rapid growth, which saw UALR go from about 3,500 students and 75 full-time faculty members in 1969 to about 12,000 students and over 500 full-time faculty members today. The University's expanded offerings now include more than 140 undergraduate and graduate degrees, an extensive schedule of night, weekend, as well as extended programs. We also provide a wide range of community educational services. UALR began offering graduate and professional work in 1975 and the UALR Graduate School was created in 1977. UALR now offers doctoral programs, juris doctorates, graduate and professional programs, as well as joint programs with other campuses of the University of Arkansas System.

Presidents of the Little Rock Junior College and Little Rock University include R. C. Hall (1927-1930), John A. Larson (1930-1950), Granville Davis (1950-1954), E. Q. Brothers (acting president 1954-1956), and Carey V. Stabler (1956-1969).

Chancellors of the University of Arkansas at Little Rock include Carey V. Stabler (1969-1972), James H. Fribourgh (acting chancellor 1972-1973, 1982), G. Robert Ross (1973-1982), James H. Young (1982-1992), Joel E. Anderson (interim chancellor 1993), Charles E. Hathaway (1993-2002), and Joel E. Anderson (2003 -present).

Mission

University of Arkansas System Mission

The University of Arkansas System is a comprehensive, multi-campus, publicly-aided institution dedicated to the improvement of the mind and spirit through the development and dissemination of knowledge. The University embraces and expands the historic trust inherent in the land-grant philosophy by providing access to academic and professional education, by developing intellectual growth and cultural awareness in its students, and by applying knowledge and research skills to an ever-changing human condition. (Adopted by the University of Arkansas Board of Trustees, 1989)

Most universities today develop and publish statements explaining their purposes and describing their programs. Official boards that govern a campus or coordinate its activities in relation to other campuses also develop and publish such statements. For UALR there are mission statements and role and scope statements developed at three levels: the University of Arkansas System, the statewide coordinating board, and the campus. Although not identical, the statements are similar and consistent in content, each reflecting a different perspective from a different level of responsibility.

The mission statement typically is brief, general, and philosophical. It states why the institution exists. It addresses fundamental purposes and permanent commitments. It distinguishes the university from other societal institutions such as a church, a factory, a political party, or an elementary school.

The role and scope statement is more concrete and specific than the mission statement. Elements of a role and scope statement have only relative permanence. The role and scope statement distinguishes one university from other universities. Each university campus has a role to play in a larger cast of actors. Thus role and scope statements tend to be of particular concern to officials responsible for governing or coordinating multiple university campuses.

The role and scope statement typically discloses the nature and range of the institution's responsibilities and activities: geographical service area; disciplines in which programs are provided; levels of degree offerings, e.g., associate, baccalaureate, master's, doctoral; dominant characteristics of the student clientele; other constituencies to be served; emphasis areas; and sometimes future directions.

Included in this chapter are the mission statement of the University of Arkansas System, the role and scope statement for UALR adopted by the University of Arkansas Board of Trustees, and the role and scope statement for UALR published by the Arkansas Department of Higher Education and adopted by the Arkansas Higher Education Coordinating Board. They are followed by the current mission, objectives, and role and scope statements developed at UALR.

UALR Mission

The mission of the University of Arkansas at Little Rock is to develop the intellect of students; to discover and disseminate knowledge; to serve and strengthen society by enhancing awareness in scientific, technical, and cultural arenas; and to promote humane sensitivities and understanding of interdependence. Within this broad mission are the responsibilities to use quality instruction to instill in students a lifelong desire to learn; to use knowledge in ways that will contribute to society; and to apply the resources and research skills of the University community to the service of the city, the state, the nation, and the world in ways that will benefit humanity. (Adopted by the UALR Faculty Senate, 1988)

UALR Objectives

The University, through its various programs, works toward six mission objectives:

Excellence in Instruction: The University has a responsibility to provide excellence in instruction to ensure high-quality education for our students. This responsibility includes developing faculty teaching skills, awareness of the ways students learn, assessing student learning outcomes, and enhancement of resources to support effective instruction.

Scholarly Inquiry: The University has a responsibility to use scholarly inquiry to advance the discovery, preservation, and dissemination of knowledge. This responsibility includes the creation of a university environment that supports diverse research activities by faculty, staff, and students.

Service to Society: The University has a responsibility to serve society through the application of knowledge and research skills. This responsibility includes applying the University's resources to local, state, national, and

international needs in order to improve the human condition.

Community of Learning: The University has a responsibility to provide a community of learning through creation of an academic environment that stimulates students, faculty, and staff to become lifelong learners. This environment should heighten the intellectual, cultural, and humane sensitivities of students, faculty, and staff.

Accessibility: The University has a responsibility to serve the needs of a heterogeneous student population and to make its resources accessible to the general public and to local, state, national, and international groups. This responsibility includes creating opportunities for access to the University's academic and other resources.

Responsiveness: The University has a responsibility to remain responsive to a changing environment and society. This responsibility includes a continuous assessment of the University's strengths and weaknesses in planning for and meeting internal and external needs. It also includes developing the faculty, staff, and students' desire and capacity in order to create an academic community that is open to change and ready to meet the demands of a dynamic environment and student body. (Adopted by the UALR Faculty Senate, 1988)

UALR Role and Scope Developed by the University of Arkansas Board of Trustees

The University of Arkansas at Little Rock (UALR) is a Carnegie "Doctoral/Research University" offering a comprehensive range of undergraduate, master's, and doctoral programs, and a first professional degree in law. Due to its location in the state's capital city and largest, most complex metropolitan area, the demand for UALR to offer graduate, professional, and doctoral education continues to increase, and, thus, post-baccalaureate offerings will become a larger part of the institution's instructional program. Because of its metropolitan location, UALR assumes a special role in relation to the needs of urban areas in modern society in its instruction, research, and public service programs. UALR recognizes and accepts that in the 21st Century universities are critical to regional and state economic development.

UALR serves a diverse student body. While it serves traditional students as do most other universities, UALR also serves large numbers of nontraditional students who enroll part-time, commute to campus, have job and family responsibilities, and may be older. The university also enrolls international students from more than 50 countries. Honors courses and a nationally recognized undergraduate scholars program respond to the needs of superior students while students with developmental needs are afforded organized assistance in meeting their educational goals.

UALR emphasizes excellence in teaching by all faculty. Developing technological competence in students receives particular attention.

UALR is strongly committed to research and public service. Faculty engage in applied and basic research appropriate to their academic disciplines and in response to economic development needs and other state and regional needs. The university is committed to supporting research and development, often in cooperative relationships, leading to intellectual property and commercialization. UALR's public service mission is reflected in numerous outreach activities by individual faculty members, academic units, and a number of specialized units established to provide assistance and expertise to organizations and groups in the community and across the state.

Partnerships are very important to UALR for they enable the university to extend its reach, increase its effectiveness, and leverage its resources. UALR works with other institutions of higher education—particularly the University of Arkansas for Medical Sciences, the University of Arkansas Cooperative Extension Service, the University of Arkansas Clinton School of Public Service, and Pulaski Technical College—to coordinate instructional programs. UALR partners with and complements the research activities of the University of Arkansas for Medical Sciences. UALR gives and receives benefit from partnerships with businesses, schools, governmental offices, neighborhood groups, cultural organizations, and nonprofit organizations. (Adopted by the University of Arkansas Board of Trustees, 1978; revised 1982, 1989, 1991, 2006)

UALR Role and Scope Developed by the Arkansas State Board of Higher Education Audiences

As the state's metropolitan university, the University of Arkansas at Little Rock (UALR) has the responsibility for serving:

- Residents of Arkansas and the Little Rock metropolitan area who have completed a high school education and are seeking either a college degree or continuing professional education. As a metropolitan university, the institution serves adult, part-time students in particular.
- Employers across the state, particularly in the region, both public and private, seeking well-educated employees, technical assistance and applied research.
- Economic development interests and entrepreneurs in the region and across the state.
- The research community.
- The community and area by providing a broad range

of academic and cultural activities and public events.

- Area K-12 schools seeking college general education courses for advanced students.
- Two-year college transfer students.

Array of Programs and Services

UALR serves these audiences by providing:

- Baccalaureate programs in arts and humanities, the natural sciences, and social sciences appropriate to a teaching institution with a predominantly undergraduate student body.
- Associate, baccalaureate and masters programs in the professional fields of particular importance in the region, including journalism and communications, public administration and community services, computer and information science, nursing, human services (including social work and criminal justice), education, engineering, and business.
- Doctoral programs most needed by regional and state employers, most importantly programs in education and applied science.
- Services specifically designed to meet the needs of statewide and regional economic development—continuing professional education, technical and professional services, support of small businesses and entrepreneurs, and technology transfer.

Special Features

- Institute for Economic Advancement
- Nanotechnology Center
- UALR-UAMS joint academic and research programs.

(Adopted by the Arkansas State Board of Higher Education, 1989; amended 1992, 2008)

UALR Role and Scope Developed by the UALR Faculty Senate

The University of Arkansas at Little Rock offers certificates and degree programs at the associate, baccalaureate, master's, specialist, and doctoral levels. Disciplines in which degrees are offered include applied science, the arts; business, health, and public administration; communication; education; engineering technology; the humanities; law; social, physical, and life sciences; and social work. The institution emphasizes the liberal education of undergraduate students and offers more focused professional study, particularly at graduate levels.

The University of Arkansas at Little Rock, taking advantage of its metropolitan location, offers programs and services that respond to the special needs and interests of individuals, organizations, institutions, businesses, and governmental units. Academic programs, student services, research activities, public service projects, and institutional policies reflect the University's commitment to a diverse

student body composed of recent high school graduates, students returning to school after other experiences, retirees, international students, disabled students, and professionals seeking career change or enrichment. A significant percentage of these students attend school part-time and work full- or part-time. As a result, many UALR students bring experience and a high level of motivation into the classroom.

The University of Arkansas at Little Rock strives to make higher education accessible to all those who can benefit. The institution's academic courses are offered in flexible and varied time periods and learning formats, at off-campus locations as well as in traditional classrooms, and by radio, telecommunication, and newspaper. In all of these forms the quality of instruction is of paramount importance. The University has a nationally recognized scholars program and curriculum, honors courses, and other programs for superior students. Specialized programs and assistance are offered to educationally disadvantaged students. The University is committed to international education, supporting programs and courses that attract international students and offer opportunities for all students to explore and experience other cultures.

The University of Arkansas at Little Rock recognizes its responsibility to contribute to bodies of knowledge through research as well as to disseminate ideas through instruction. The University fosters both basic and applied research appropriate to its programs and faculty. The University supports grant applications and other attempts to gain sponsorship for research. Many research activities address the problems of Arkansas as it interacts with an increasingly complex and interdependent world.

The University of Arkansas at Little Rock shares its resources with the larger community through public service. Activities include noncredit educational offerings ranging from college preparatory classes to courses for personal enrichment and awareness; special programs for pre-collegiate students; programs for professional advancement; and institutes and centers to focus research and study on such areas as teaching and learning, technology, government, management, and urban affairs. The University serves the State of Arkansas in economic development through assistance from businesses, seminars for managers and workers, and support for entrepreneurial ventures. The University provides leadership in cultural enrichment and makes its resources available to the community. Relationships with local, state, and national governments and with business and industry strengthen the curriculum and provide students and faculty opportunities to apply theory and research.

The University anticipates continued growth in the

number of students and in the number and size of academic programs. The primary aim of the University in all of its varied activities will continue to be maintaining and improving the quality of education for all its students. (Adopted by the UALR Faculty Senate, 1988)

Organizational Structure

The University of Arkansas at Little Rock falls under the University of Arkansas System. A complete listing of the Administration and Staff is found in the back of this catalog.

The Chancellor is the executive officer of UALR. The Executive Vice Chancellor and Provost is the chief academic officer of UALR and provides academic and administrative leadership in the area of academic and faculty affairs. All of our programs of study fall under a specific department or school, which in-turn fall under a specific college.

Nondiscrimination

UALR adheres to a policy that enables all individuals, regardless of race, color, gender, national origin, age, religion, sexual orientation, veteran's status, or disability, to work and study in an environment unfettered by discriminatory behavior or acts. Harassment of an individual or group will not be condoned, and any person (student, faculty, or staff member) who violates this Policy will be subject to disciplinary action.

Harassment that is considered discriminatory includes actions or conduct (verbal, graphic, gestural, or written) directed against any person or group with the intent to demean or create a hostile or threatening environment. It is not the intent of this Policy to infringe upon or limit educational, scholarly, or artistic expression. Any person who believes he or she has been discriminated against should contact the Office of Human Resources to obtain assistance and information concerning the filing of complaints, (501) 569-3180.

At the same time the university prohibits discriminatory practices, it promotes equal opportunity through affirmative action. Non discriminatory affirmative action equal opportunity policies apply to recruitment, hiring, job classification and placement, work conditions, promotional opportunities, demotions/transfers, terminations, training, compensation, choice of contractors and suppliers of goods and services, educational opportunities, disciplinary action, recreational and social activities, use of facilities, housing and university-sponsored programs.

Prohibiting Sexual Harassment

It is the policy of the University of Arkansas at Little Rock to prohibit sexual harassment of its students, faculty,

and staff. Incidents of sexual harassment are demeaning to all persons involved and impair the ability of the institution to perform its educational functions. Sexual harassment of employees is prohibited under Title VII of the Civil Rights Act of 1964, and sexual harassment of students may constitute discrimination under Title IX of the Education Amendments of 1972. Sexual harassment of employees is defined by the Equal Employment Opportunity Commission to include unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct which takes place when: submission to the conduct is either explicitly or implicitly a term or condition of an individual's employment; submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting that individual; or such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment. Sexual harassment of students includes unwelcome sexual advances, requests for sexual favors, other verbal or physical conduct which take place when: submission to the conduct is either explicitly or implicitly a term or condition of an individual's academic status or advancement; submission to or rejection of such conduct by an individual is used as the basis for academic decisions affecting that individual; or such conduct has the purpose or effect of unreasonably interfering with an individual's academic performance or creating an intimidating, hostile, or offensive learning environment. Employees and students who believe that they have been subjected to sexual harassment are encouraged to report the problem. University grievance procedures are available to individuals who wish to pursue complaints of sexual harassment. Informal complaints should be made to an ombudsman for sexual harassment. The goal of the informal process is to resolve problems. No disciplinary action will be taken as a result of the informal complaint procedure. Formal complaints against faculty, staff and administration should be submitted to the Office of Human Resources. Both formal and informal complaints should be made within 30 calendar days of the most recent alleged discriminatory act.

Sexual Assault

(UALR's complete policy on sexual assault appears in the *UALR Student Handbook* and the policy website-ualr.edu/policy.) The University of Arkansas at Little Rock explicitly condemns sexual assault as a violation of an individual's human rights and dignity. Sexual assault is generally defined as attempted or actual unwanted sexual activity. The policy of UALR is that members of the University

community neither commit nor condone sexual assault in any form. This prohibition applies equally to male and female staff, faculty and students, to all other persons on premises subject to University control, and to those engaged to further the interests of the University.

Sexual assault is unlawful and may subject those who engage in it to civil and criminal penalties. A student or employee of UALR charged with sexual assault can be prosecuted under Arkansas criminal statutes and/or disciplined by the University. Even if criminal prosecution is not pursued, the University can pursue disciplinary action. Where there is probable cause to believe that the campus regulations prohibiting sexual assault have been violated, the campus will pursue strong disciplinary action through its own internal judicial channels. This discipline includes, but is not limited to, the possibility of termination, expulsion, suspension, disciplinary probation, counseling, mediation, educational sanctions, or a combination of these. Any conduct that constitutes a sexual offense under Arkansas law is also subject to disciplinary sanctions under this policy. Victims of sexual assault have the right to file criminal charges with local law enforcement authorities and, upon request, are entitled to assistance from the University in notifying those authorities. Victims also have the right to file a complaint with the University to have a sexual assault allegation investigated by the University, and the right to participate in any disciplinary proceedings regarding the sexual assault complaint. Because of the traumatic nature of sexual assault, victims are strongly encouraged to seek professional help. On campus, free and confidential counseling services and referrals are available at Counseling and Career Planning Services in Ross Hall 417. Due to the nature and value of evidence, it is important that any sexual assault be reported as soon as possible. A complaint should be filed with the University within 30 days of the incident. The initial complaint may be filed with any of these University offices:

The Department of Public Safety

The Office of Campus Life

The Office of Human Resources

Smoke-Free Campus

The University of Arkansas at Little Rock is a smoke-free campus. This policy originated in recommendations from the Student Government Association and the University Assembly. This policy applies to all locations of the University, including the main campus, the William H. Bowen School of Law, and the UALR Benton Center. All individuals are expected to comply with this policy. Persons who fail to comply are subject to disciplinary action. (Chancellor's Office, 8/16/09)

ADMINISTRATION AND STAFF

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University of Arkansas at Little Rock

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Judy Williams, Executive Director of Communications

Office of the Executive Vice Chancellor and Provost

Zulma Toro, Provost and Executive Vice Chancellor for Academic Affairs
Karen Wheeler, Associate Vice Chancellor for Academic Affairs, Curriculum, Assessment and Diversity
Christina Drale, Associate Vice Chancellor for Academic Affairs, Faculty and Administrative Affairs
Daryl Rice, Associate Vice Chancellor for Academic Affairs, Student Success
TBD, Division Chief of the Office of Undergraduate Academic Advising
Kimberly Bright, Director of the Academic Student Success
Logan Hampton, Interim Vice Provost
Darryl McGee, Assistant Vice Chancellor/Dean of Students
Jan L. Austin, Assistant Vice Chancellor of Campus Life
H. Mike Kirk, Director of Counseling and Career Planning Services
Sharon Downs, Director of the Disability Resource Center
Oliver Brown, Director of Donaghey Student Center
Marie Sandusky, Director of Health Services
Debra Gentry, Director of Housing
Linda Barker, Director of Educational Talent Search (TRIO)
Brad Patterson, Assistant Vice Chancellor for Testing Services and Student Life Research
Brenda Thomas, Manager of the Bookstore (Barnes & Noble)

Office of the Vice Chancellor for Enrollment Management

Dean Kahler, Vice Chancellor for Enrollment Management
TBD, Division Chief for Enrollment Planning Services
Katie Young, Director of Admissions
Malissa Mathis, Director of the Office of Transfer Student Services

Office of the Vice Chancellor for Finance and Administration

Bob Adams, Vice Chancellor for Finance and Administration
Chaundra L. Hall, Associate Vice Chancellor for Finance
David Millay, Associate Vice Chancellor for Finance and Administration
Annette Murdock Tangye, Director of Human Resources
Allen Stanley, Contract Review Manager
Edward Smith, Director of Public Safety
Nathan Nolen, Director of Information Services
Tugrul Polat, Director of International Student Services

FACULTY LISTING

◇ Signifies graduate faculty standing

Adams, Alois J. ◇

Associate Professor of Applied Science
A.B., University of Dallas
Ph.D., University of Florida

Agarwal, Nitin◇

Associate Professor of Information
Science
B.Tech., Indian Institute of Information
Technology
Ph.D., Arizona State University

Akhnoukh, Amin K.

Associate Professor of Civil and
Construction Engineering
B.S., Cairo University
M.S., Kansas State University
Ph.D., University of Nebraska-Lincoln

Al-Rizzo, Hussain◇

Professor of Systems Engineering
B.Sc., M.S., University of Mosul
Ph.D., University of New Brunswick

Al-Shukri, Haydar J.◇

Chair/Professor of Applied Science
B.S., M.S., University of Baghdad
Ph.D., Saint Louis University

Ali, Nawab

Associate Professor of Graduate Institute
of Technology
B.S., M.Sc., M.Ph., Ph.D., Aligarh
University

Amrhein, Laura M.◇

Associate Professor of Art
B.A., James Madison University
M.A., Ph.D., Virginia Commonwealth
University

Anderson, Charles M. ◇

Professor of Rhetoric and Writing
B.A., Texas Lutheran College
M.A.C.T., University of Tennessee
Ph.D., University of Iowa

Anderson, Gary T. ◇

Chairperson, Department of Systems
Engineering/Professor of Systems
Engineering
B.S.E.E., Rice University
M.S., Ph.D., University of Texas at Austin

Anderson, Joel E. ◇

Chancellor/Professor of Political Science
B.A., Harding College
M.A., American University
Ph.D., University of Michigan

Anson, Edward M.◇

Professor of History
B.A., Drake University
Ph.D., University of Virginia

Ashby, Wendy

Assistant Professor of German
B.A., Weber State University
M.A., Bowling Green State University
Ph.D., University of Arizona

Atcherson, Samuel◇

Associate Professor of Audiology
B.S.Ed., University of Georgia
M.Ed., University of Georgia
Ph.D., University of Memphis

Babiceanu, Radu F.◇

Associate Professor of Systems
Engineering
B.S., Polytechnic University of Bucharest
M.S., University of Toledo
Ph.D., Virginia Tech

Bacot, Hunter◇

Professor of Public Administration
M.P.A., University of North Carolina at
Charlotte
Ph.D., University of Tennessee

Bailey, Janet L.◇

Professor of Management
B.B.A., University of Texas-Pan American
Ph.D., University of North Texas

Bains, Ann B.◇

Professor of Nursing/Dean, College of
Education and Health Professions
B.S.N, MSN, University of Central
Arkansas
Ed.D., University of Arkansas at Little
Rock

Bakr, Mamdouh M.◇

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Professor of Physics, (1969-2004)

NanJo Dubé Coleman, B.S., MEd, PhD

Professor of Secondary Education, (1975-
1995)

Marian C. Crawford, B.S., MBE, PhD

Professor of Management, (1974-2010)

Steven A. Crawshaw, B.A., M.S.

Advanced Instructor of Physics and
Astronomy, (1977-2013)

Huey D. Crisp, B.S., MA, EdD

Instructor in Rhetoric and Writing, (1980-
2011)

Robert C. Culpepper, B.S., MB.A., PhD

Professor of Accounting, (1975-1997)

Carolyn Curry, B.A., MA

Assistant Professor of Theatre Arts,
(1976-1995)

Jesse E. Dancer, B.S., MS, PhD

Professor of Audiology and Speech
Pathology, (1978-2002)

Marshel D. Davis, B.A., M.A., M.S.E.

Assistant Professor of Health, Human
Performance & Sport Management,
(1969-2013)

Priscilla N. Davis, B.S.E, MA, PhD

Professor of Audiology and Speech
Pathology, (1972-2003)

Larry R. Dickerson, B.A., M.A., Ph.D.,

Professor of Rehabilitation Counseling,
(1978-2012)

Emily S. Dickinson, B.A., MS

Assistant Professor of Mathematics,
(1963-1993)

E. Faye DiMassimo, B.S.E, MA

Assistant Professor of Speech
Communication, (1968-1982)

Wanda Dole, B.A., M.A., M.S.

Library Professor/ Dean of Ottenheimer
Library, (2006-2013)

Charles W. Donaldson, B.S., MS, Ed.D.

Vice Chancellor of Education and
Student Services/ Associate Professor of
Education,
(1992-2013)

Ralph D. Eberly, B.A., PhD

Cooper Distinguished Professor of
English, (1967-1985)

Victor E. Ellsworth, BME, MM, PhD

Associate Professor of Music and
Chairperson, Department of Music,
(1997-2009)

Arthur "Art" English, B.S., MA, Ph.D.

Professor of Political Science, (1976-2012)

Dale V. Ferguson, B.S., MS, PhD

Professor of Biology, (1970-2004)

Jamie A. Foster, B.S.HE, MSHE, EdD

Assistant Professor of Elementary
Education, (1985-2001)

**Shirley M. Freeman-Turner, B.S.E, MSE,
EdD**

Associate Professor of Elementary and
Early Childhood Education, (1975-2006)

**James H. Fribourgh, B.A., M.S., Ph.D.,
L.H.D.**

Distinguished Professor of Biology,
(1949-1994)

Edward Jay Friedlander, B.S., MA, EdD

Professor of Journalism, (1975-1996)

- Richard Frothingham, B.A., B.D., Ph.D.**
Professor of Philosophy and Religious Studies, (1962-1986)
- Melville Fuller, B.S., M.Ed., Ph.D.**
Professor of Secondary Education, (1974-1994)
- Jackie Garner, B.S., M.S., Ph.D.**
Professor of Mathematics, (1992-1999)
- Mary Anne Garnett, B.A., M.A., Ph.D.**
Professor of Foreign Languages, (1992-2013)
- James E. Gauntt, Jr., B.A., M.B.A., Ph.D.**
Associate Professor of Accounting, (1981-1999)
- Elizabeth Byrd Gibbens, B.A., M.A., Ph.D.**
Associate Professor of English, (1985-2000)
- Wallace D. Gitchel, B.A., JD**
Professor of Law, (1984-2003)
- Mary L. Good, B.S., MS, PhD**
Dean, Donaghey College of Engineering and Information Technology, (1998-2011)
- William C. Goolsby**
Professor of Finance, (1996-2008)
- Kenneth Ray Goosen, B.S., MS, PhD**
Professor of Accounting, (1975-1998)
- Cheryl R. Grable, B.S., MSE, EdD**
Associate Professor of Teacher Education, (-2010)
- William E. Gran, B.S., MS**
Instructor in Physics, (1966-2005)
- Albert Grauer, B.S., PhD**
Professor of Astronomy, (1977-2006)
- John W. Gray, B.A., MA, PhD**
Professor of Speech Communication, (1970-2000)
- Alcuin Gremillion, PhD**
Associate Professor of Chemistry, (1977-1992)
- David M. Guerra, B.A., MS, PhD**
Professor of Radio, Television and Film, (1976-2005)
- Clarence H. Guy, B.A., M.A.**
Instructor of Philosophy and Interdisciplinary Studies, (2000-2013)
- Frank D. Hall, B.S., M.B.A., Ph.D.**
Associate Professor of Management, (1963-2012)
- Ralph Hammond, B.A., MEd, PhD**
Associate Professor of Psychology, (1972-2001)
- Gerald T. Hanson B.S., MA, PhD**
Professor of Geography, (1975-2009)
- Charles E. Hathaway, B.S., PhD**
Chancellor, (1993-2002)
- Roger M. Hawk, B.S., MS, PhD**
Professor of Applied Science, (1986-2005)
Professor of Biology, (1970-2007)
- Anna L. Heatherly, B.S.E, MEd, EdD**
Associate Professor of Elementary Education, (1974-2001)
- Burton Henderson, B.S., MEd**
Associate Professor of Mechanical Engineering Technology, (1989-1996)
- Gary A. Heidt**
Professor of Biology, (1970-2007)
- Katherine L. Henslee, B.S.E, MEd, EdD**
Professor of Teacher Education, (1966-2002)
- Andrea Watson Herrmann, B.A., M.A., Ed.D.**
Professor of Rhetoric and Writing, (1985-2012)
- John Hill, B.A., MSW**
Associate Professor of Social Work, (1970-1999)
- John R. Hodges, B.S., MS, PhD**
Professor of Mathematics, (1950-1991)
- Mary Frances Hodges, MEd**
Instructor of Rhetoric and Writing, (1990-1998)
- Kathleen Holder, BFA, MFA**
Professor of Art, (1981-2000)
- Samuel Howell, B.S.E, ME, EdD**
Assistant Professor of Education, (1973-2009)
- Carl F. Hummel, Jr.**
Associate Professor of Psychology, (1977-2007)
- Darrell K. Hutchins, B.S., MS, PhD**
Associate Professor of Applied Science, (1984-2000)
- Toran E. Isom, B.S.E., MSE, Ed.D.**
Senior Instructor of Rhetoric and Writing, (1990-2013)
- Arlos Ferrel James, B.S.E, MFA, EdD**
Professor of Learning Systems Technology, (1988-2006)
- Robert Jespersen, AB, AM, JD, LLM**
Professor of Business Law, (1980-1995)
- Shirley Jespersen, B.A., MS, EdD**
Associate Professor of Educational Leadership, (1985-1995)
- Robert Johns, B.A., MAT, PhD**
Associate Professor of Secondary Education and History, (1986-2001)
- Cameron D. Jones, B.A., MA, PhD**
Associate Professor of Foreign Languages, (1970-1994)
- Philip L. Kehler, B.S., MS, PhD**
Professor of Earth Science, (1973-2000)
- J. Hope Keiser, B.S., MA, PhD**
Professor of Audiology and Speech Pathology, (1977-2000)
- Warren Kessler, B.A., MFA**
Professor of Art, (1969-2003)
- Marilynn Keys, B.A., MA**
Assistant Professor of English, (1960-1994)
- Trudy C. Kincade, B.S., B.M., M.A.**
Instructor of Music, (1974-2013)
- Roslyn Knutson, B.A., MA, PhD**
Professor of English, (1963-2009)
- Jimie Kusel, AB, MB.A., PhD**
Professor of Accounting, (1981-2011)
- Gladys Ann Larowe, B.S.N, MSN**
Professor of Nursing, (1980-1994)
- Michael T. Ledbetter, BAAS, MS, Ph.D.**
Professor of Earth Science, (2002-2012)
- Richard Lewis, B.S., MS, PhD**
Associate Professor of Biology, (1976-1994)
- Catherine O. Lowry, B.A., M.A.**
Senior Instructor of Information Technology, (1997-2013)
- R. Burt Madden, B.S., MS, PhD**
Associate Professor of Management, (1981-2011)
- Alan H. Marks**
Professor of Sociology and Anthropology, (1977-2007)
- Cleo B. Mattox, B.S.E, MBE, EdD**
Associate Professor of Management, (1961-1988)
- Malay K. Mazumder**
University Professor of Applied Science, (1972-2007)
- David C. McAlpine, B.A.E., M.A., Ed.D.,**
Professor of Spanish, (1991-2013)
- Daniel B. McCallum, B.S., MS, PhD**
Associate Professor of Mathematics and Statistics, (1971-2011)
- Paul C. McLeod, B.S.MS, MS**
Associate Professor of Applied Science, (1958-1998)
- Susan Mercer, B.A., MSSW, DSW**
Professor of Social Work, (1972-2002)
- Cynthia D. Milazzo**
Associate Vice Chancellor, (1989-2009)

- James C. Montague, B.S., M.A., Ph.D.**
Professor of Audiology and Speech Pathology, (1971-2000)
- Erle Patrick Moore, B.A., M.A., Ph.D.**
Associate Professor of English, (1989-2012)
- Phyllis J. Moore, B.A., MSE, PhD**
Professor of Biology, (1972-2003)
- Ray Moore, B.M., M.A., Ed.D.**
Professor of Music, (1988-2003)
- Lee Morgans, B.S., M.S., Ph.D.**
Professor of Biology, (1969-2001)
- Morell E. Mullins, JD**
Professor of Law, (1979-2004)
- Emil C. Muly, B.E.S., M.S., Ph.D.**
Professor of Applied Science, (1991-1997)
- Alice Ann Munson, B.A., MA**
Instructor in English, (1969-2011)
- Arthur G. Murphey, Jr., B.A., JD, LLM**
Professor of Law, (1975-1997)
- Russell E. Murphy**
Professor of English, (1972-2008)
- Linda Musun, B.A., MA, PhD**
Professor of Psychology/Dean, Extended Programs, (1978-2011)
- Rodney D. Neal, B.S.ME, MSMS, PhD**
Professor of Management Science, (1970-1998)
- John R. Pagan, AB, MLitt, JD**
Professor of Law, (1975-1996)
- Agaton P. Pal, B.S.E, MA, PhD**
Professor of Sociology, (1970-1987)
- James W. Parins, B.S., M.A., Ph.D.**
Professor of English, (-2012)
- Marylyn J. Parins, B.A., MA, PhD**
Professor of English, (1965-1999)
- Glenn Pasvogel, B.A., JD**
Professor of Law, (1971-2003)
- James H. Peck, B.S., MS, PhD**
Professor of Biology, (1981-2011)
- Joe Phillips, B.A., MA, MFA**
Associate Professor of Art, (1980-2000)
- John C. Pickett**
Professor of Economics and Finance, (1986-2008)
- Shirley J. Pine, B.A., MA, PhD**
Professor of Audiology and Speech Pathology, (1974-1997)
- John B. Pittenger, B.A., MA, PhD**
Professor of Psychology, (-2010)
- Linda M. Pledger, B.A., M.A., Ph.D.**
Professor of Speech Communication, (1988-2005)
- Bruce Plopper, B.S., M.A., Ph.D.**
Professor of Journalism, (1990-2012)
- Clifford "Earl" Ramsey,**
Professor of English
- Linda J. Rimer**
Professor of Nursing, (1974-2008)
- John D. Robson, B.S., MS, PhD**
Professor of Sociology, (1975-1999)
- Aimar Andre Rollefson, B.A., MA, PhD**
Professor of Physics, (1974-2005)
- Frances M. Ross, B.A., M.A.**
Assistant Professor of History, (1963-2013)
- Julian (Jud), Rouch, RLS, B.A., MS, EdS**
Professor of Surveying and Land Information, (1985-2001)
- Keith B. Runion, B.A., MEd, EdD**
Associate Professor of Counselor Education, (1986-2006)
- Kathy Sanders, B.S., MALS, MA**
Associate Professor of Library Science, (1969-2004)
- Luther Sanders, B.S., MA, EdD**
Professor of Journalism, (1974-2000)
- Luciano A. Santa Cruz, B.A., MSW, DSW**
Associate Professor of Social Work, (1978-2005)
- Dorothy E. Sawatski, B.S.,**
Associate Professor of Music (1961-1991)
- David A. Schonert, B.A., M.S.**
Instructor of Mathematics, (1993-2013)
- Sally Y. Sedelow, B.A., MA, PhD**
Professor of Computer and Information Science, (1985-1995)
- Walter A. Sedelow, B.A., MA, PhD**
Professor of Computer and Information Science, (1985-1995)
- Angela Sewall, A.B., M.A., Ed.S., Ed.D.**
Dean, College of Education/Professor of Educational Leadership, (1992-2013)
- Peter Thomas Sherrill, B.A., MA, PhD**
Professor of History, (1970-1998)
- Ralph Shull, B.S., MA, PhD**
Professor of Economics and Finance, (1980-2000)
- David W. Sink, A.B., M.A., D.P.A.**
Professor of Public Administration, (1991-2013)
- Jean Sizemore, B.A., MA, MA, PhD**
Associate Professor of Art, (1986-2000)
- Harold T. Smith, B.A., M.A., Ph.D.**
Professor of History, (1969-1996)
- Marcia M. Smith, B.A., M.A., Ph.D.**
Senior Instructor in Rhetoric and Writing, (1992-2013)
- Patricia B. Smith, B.S., M.A., Ed.D.**
Professor of Rehabilitation Education, (1984-2012)
- Carol D. Snelson**
Associate Professor of Elementary Education, (1971-2007)
- Neil E. Snortland, B.A., M.A., Ph.D.**
Professor of Political Science and Chairperson, Department of Political Science, (-2010)
- Nicholas J. Sobin, B.A., MA, PhD, (1980-2000)**
Professor of English
- Thea S. Spatz, B.A., M.A., Ed.D.**
Professor of Health Science, (1987-2005)
- Gisela Spieker, B.A., MSW, PhD**
Professor of Social Work, (1971-1990)
- David S. Spillers, B.S.E, MEd, EdD**
Professor of Educational Media, (-2010)
- Logan Scott Stafford, B.S., JD**
Professor of Law, (1981-2004)
- Betty Stephens, NDR, M.S.**
Assistant Professor in Health, Physical Education, (1967-1988)
- Howard Stephens, B.S., M.A., Ed.D.**
Associate Professor of Teacher Education, (1969-1995)
- Kathryn Zabelle Stodola, B.A., M.A., Ph.D.**
Professor of English, (1980-2012)
- A. Ann Straughn, B.S.N, MSN**
Associate Professor of Nursing, (-2010)
- Johnye E. Strickland, B.A., M.A., Ph.D.**
Professor of English, (1991-2001)
- Joyce M. Stroud, B.S.E., M.Ed.**
Instructor of Management, (1998-2013)
- Mary C. Sturgeon, B.S.E, MA**
Associate Professor of Library and Information Science, (1967-1987)
- Merritt N. Sugg, B.S., Ph.D.**
Associate Professor of Mathematics and Statistics, (1975-1999)
- Bruce Swinburne, B.A., M.A., Ed.D.**
Professor of Higher Education, (1992-1998)
- Robert T. Swindell, B.S., PhD**
Professor of Chemistry, (-2009)
- Judyth A. Swingen, B.S., MS, PhD**
Professor of Accounting, (2001-2011)
- Bill C. Tadlock, B.S., MB.A., DB.A.**
Associate Professor of Marketing, (1967-1994)
- Barbara B. Taegel, B.S.E, M.A.**
Dean of Students/Assistant Professor of Leisure Science, (1960-1996)

- Myra G. Taff-Watson, B.A., M.A.**
Assistant Professor of Counseling, Adult, & Rehabilitation Education, (1982-2006)
- John R. Talburt, B.S., M.S., Ph.D.**
Professor of Computer and Information Science, (1984-1995)
- Tom Teeter, B.S.E, M.L.S., Ed.D.**
Professor of Information Technology, (1972-2002)
- Mary Jean Thomas, B.S., M.S., Ph.D.**
Professor of Radio, Television, and Film, (1977-1992)
- Patricia P. Thompson, B.S., M.Ed., B.S.N, M.S.N.**
Associate Professor of Nursing, (1974-2000)
- Perry G. Thompson, B.A., M.A., Ph.D.**
Professor of Gerontology, (1977-2000)
- William H. Traylor, B.S., B.A., MLIS**
Associate Professor of Library Science, (1975 – 2006)
- Ethel P. Trice, B.S., M.S., Ed.D.**
Professor of Health Education, (1974-1987)
- Gwendolyn Brown Twillie, B.A., M.S., Ph.D.**
Associate Professor of Theatre and Dance, (1972-1998)
- Dennis P. Vannatta, B.S.E., M.A., Ph.D.**
Professor of English, (1986-2012)
- Martha Vroeman, B.S., M.S.**
Assistant Professor of Nursing, (1974-1977)
- Allan Ward, B.A., M.A., Ph.D.**
Professor of Speech Communication, (1973-2000)
- Maxine A. Warren, B.S., M.Ed., Ed.D.**
Associate Professor of Educational Foundations, (1970-1982)
- Kenneth Warrick, Master Sergeant, (1983-1987)**
Instructor of Military Science
- Maurice Weatherton, B.A., M.A., Ph.D.**
Professor of Audiology and Speech Pathology, (1974-2000)
- Roger Webb, B.A., Ph.D.**
Professor of Psychology, (1974-2013)
- Ann West, B.S., MSW**
Instructor of Social Work, (1982-1999)
- James W. Wiggins, B.S., Ph.D.**
Associate Professor of Chemistry /Dean, College of Science and Mathematics, (1969-2002)
- Leah Wilkinson, B.A., M.A., Ed.D.**
Senior Instructor of Spanish, (1980-2013)
- Leroy T. Williams, AA, B.S., MA, Ph.D.**
Associate Professor of History, (1977-2011)
- Lynda E. Wilson, B.A., M.A., Ph.D.**
Professor of Radio, Television, and Film, (1980-2000)
- Donald C. Wold, B.A., MA, PhD**
Professor of Physics, (1969-2000)
- Shelley Wold, B.A., MALS**
Assistant Professor of Library Science, (1970-1995)
- Erma Wood, B.S.E, M.S.E., Ed.D.**
Associate Professor of Management Information Systems, (1972-1999)
- Dominic T. Yang, B.S., PhD**
Professor of Chemistry, (1970-2005)

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