

UNIVERSITY OF ARKANSAS AT LITTLE ROCK GRADUATE CATALOG



University of Arkansas at Little Rock

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About the Catalog

Copies of the UALR 2010-2011 *Graduate Catalog* are available in the UALR Graduate School or online at <http://ualr.edu/catalog/>. (Note: A link is also available under the "Academics" webpage.)

The catalog is compiled and edited by Shannon Clowney, Assistant Dean of the Graduate School with production assistance provided by Sheena Brooks, Johanna Miller Lewis, Patrick Pellicane, graduate coordinators, and the staff at UALR Printing Services and UALR Office of Communications.

Policies

Right to Change Policies

Policies and procedures stated in this *Catalog* require continuing evaluation, review, and approval by appropriate University officials. All statements reflect policies or procedures in existence at the time this *Catalog* went to press. The University reserves the right to change policies at any time and without prior notice.

Equal Access for Students with Disabilities Policy

It is the policy of the University of Arkansas at Little Rock to create inclusive learning environments.

If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content, or the use of non-captioned videos—please notify the instructor as soon as possible. Students are also welcome to contact the Disability Resource Center (DRC), telephone (501) 569-3143 (v/tty). For more information, visit the DRC website at <http://ualr.edu/disability/>.

Equal Opportunity/Affirmative Action

UALR adheres to a policy that enables all individuals, regardless of race, color, gender, national origin, age, 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.

Any person who believes they have been discriminated against should contact the Human Relations Officer to obtain assistance and information concerning the filing of complaints.

Harassment which 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. At the same time the University prohibits discriminatory practices, it promotes equal opportunity through affirmative action. Nondiscriminatory 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.

Family Educational Rights and Privacy Act (FERPA)

Students at the University of Arkansas at Little Rock have certain rights with regard to their educational records as stipulated by the Family Educational Rights and Privacy Act (FERPA). Students should consult the UALR Student Handbook for the delineation of those rights.

HIV Policy

In support of its mission to discover and disseminate knowledge and to promote humane sensitivities and understanding of interdependence, the University of Arkansas at Little Rock endorses the following policy for responding to Human Immunodeficiency Virus (HIV) infection.

Based on conclusive evidence from the U.S. Public Health Services and Centers for Disease Control and Prevention, people living with HIV infection pose no threat of transmission through casual contact to those who are not infected. Because many people are infected and don't know it, the University accepts an inclusive approach that recognizes any individual could be HIV positive. No screening or inquiries regarding HIV status will be made for admission or employment.

Access

People with HIV/AIDS are protected from discrimination by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Appropriate, reasonable accommodations will be made for students and employees who are infected and they will be accorded all rights of access and responsibilities in every aspect of University life as available to not infected persons. Acts of discrimination or abuse will not be tolerated. Confidentiality will be observed.

Prevention and Education

The University will provide ongoing training for students and employees that includes the following:

- Facts about infection, transmission, prevention, testing sites, and disclosure
- Skill development and equipment for self protection
- A climate that fosters care and respect for self and others

For information about educational programs contact the Offices of Health Services or Human Resource Services.

Support Services

The Health Services Office is the primary point of confidential contact for people living with HIV and will serve as a resource to the campus community regarding HIV issues on campus.

Support services and referrals are also available in the following offices: Counseling and Career Planning Services, Disability Resource Center, and the Arkansas Employee Assistance Program.

Policy Implementation and Review

The University Health and Wellness Committee will be responsible for implementation of this policy. They will review this policy semi-annually or as scientific information emerges and submit revisions to the University Assembly for approval.

(Adopted by the Faculty Senate, 4/19/96)

Nondiscrimination Policies

UALR adheres to a policy that enables all individuals, regardless of race, color, gender, national origin, age, 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.

Any person who believes they have been discriminated against should contact the Human Relations Officer to obtain assistance and information concerning the filing of complaints.

Harassment which 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. At the same time the University prohibits discriminatory practices, it promotes equal opportunity through affirmative action. Nondiscriminatory 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.

Policy 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 Relations. Both formal and informal complaints should be made within 30 calendar days of the most recent alleged discriminatory act.

Sexual Assault 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 Relations

UALR's complete policy on sexual assault appears in the *UALR Student Handbook*.

Smoke-Free Campus Policy Statement

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)



CHANCELLOR'S WELCOME

The University of Arkansas at Little Rock is a public university in every sense of the word. We exist to serve you, the people of Arkansas, our country, and the world.

UALR provides a high-quality education to a wonderful and very diverse group of students. We offer a broad range of academic programs including a comprehensive set of undergraduate majors, 38 master's degrees, a law degree, and six doctorates. Our alumni are leaders in Arkansas government, law, education, technology, social service, business, health care, and the arts. Indeed, UALR alumni are serving in the U.S. Congress and in important roles around the world.

The university has been cited in three important economic development studies as critical to Arkansas's future. UALR plays a large role in enabling the community and the state to compete in the global, increasingly knowledge-based economy. In central Arkansas, UALR plays a significant role in turning talk of regional cooperation into reality. In Little Rock, UALR is committed to revitalizing the section of the city in which the university is located.

Whether you are considering attending UALR in person or on-line, I encourage you to explore all the University has to offer. UALR is on the fast track for the future, and we can help you reach your full potential as we move forward together.

Welcome to the University of Arkansas at Little Rock.

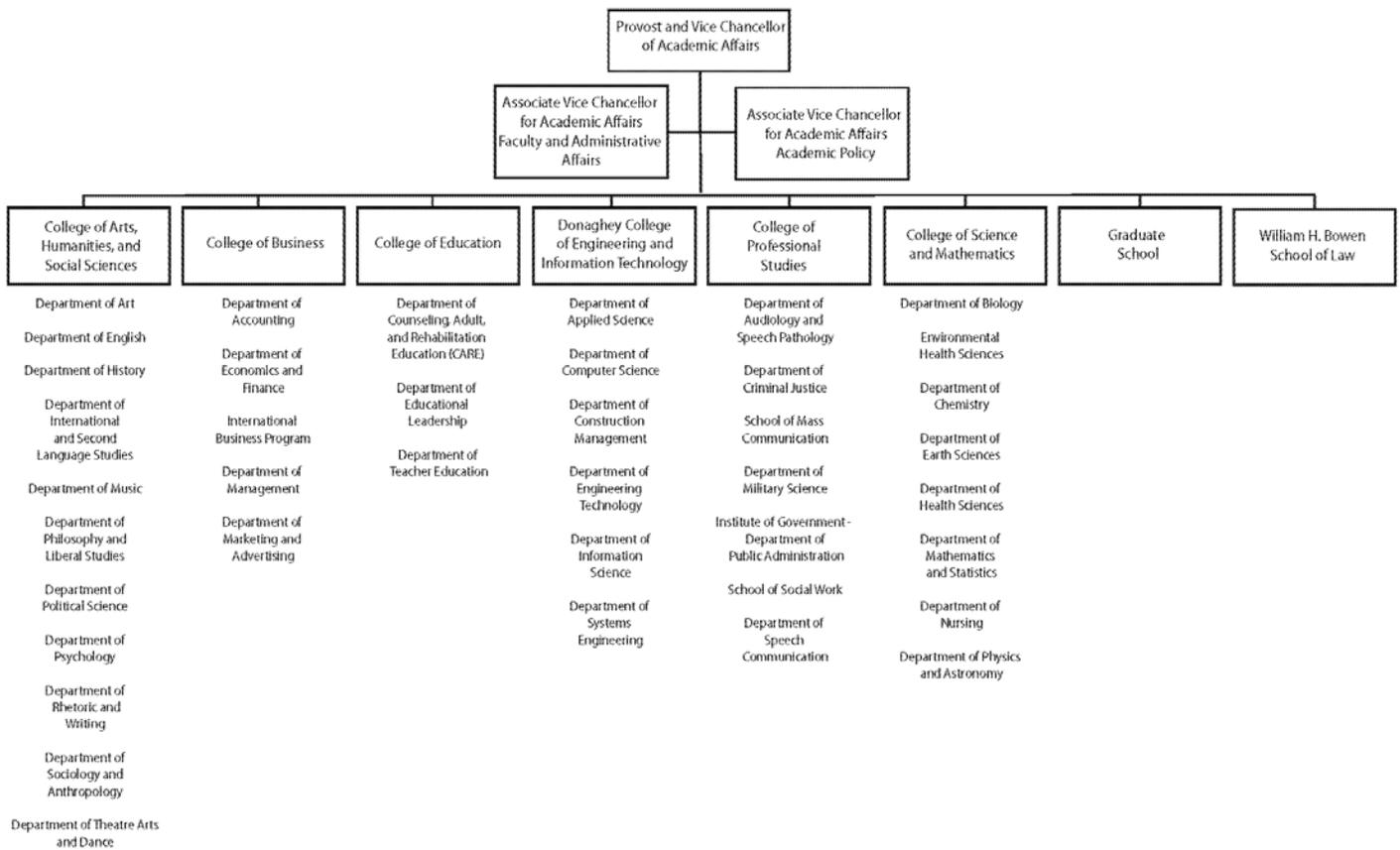
Sincerely,

Joel E. Anderson
Chancellor

ACADEMIC ORGANIZATION

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 Provost and Vice Chancellor of Academic Affairs 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. Please see the chart below.



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ACADEMIC CALENDAR

Other sessions within terms exist, check online for the most complete and accurate Academic Calendar at <http://ualr.edu/provost/calendar/calendar2.asp>.

May

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

June

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Summer I 2010

May

- 24 Classes begin
- 25 Last day to register, add, or drop a class
- 31 Memorial Day Holiday,
No classes,
University Offices closed

July

- 5 Independence Day Holiday, No classes,
University Offices closed
- 20 Last day to drop a class and receive a final grade of
"W"

August

- 2 Last day to withdraw from all classes
- 4 Last day of classes, Final Exams
- 5 Grades due by noon

Summer II 2010

May

- 24 Classes begin
- 25 Last day to register, add, or drop a class
- 31 Memorial Day Holiday,
No classes,
University Offices closed

June

- 21 Last day to drop a class and receive a final grade of
"W"
- 25 Last day to withdraw from all classes
- 28 Last day of classes,
Final Exams
- 30 Grades due by noon

Summer IV 2010

July

- 5 Independence Day Holiday, No classes,
University Offices closed
- 6 Classes begin
- 7 Last day to register, add, or drop a class

August

- 2 Last day to drop a class and receive a final grade of
"W"
- 6 Last day to withdraw from all classes
- 9 Last day of classes, Final Exams
- 11 Grades due by noon

Fall 2010

August

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

September

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

October

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

December

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

August

- 19 Classes begin
- 25 Last day to register, add, or drop classes

September

- 7-6 Labor Day Holiday, No classes (7th, University Offices closed)

November

- 10 Last day to drop a class and receive a final grade of "W" at 5 p.m.
- 24 All classes end at 5 p.m. for Thanksgiving Holiday
- 25-28 Thanksgiving Holiday, No classes (University Offices closed)

December

- 6 Last day of classes
Last day to withdraw from all classes
- 7 Consultation day
- 8 Finals begin, 4 p.m.
- 14 Finals End
- 17 Grades due by noon
- 16 Commencement

Spring 2011

January

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January

- 17 Martin Luther King, Jr. Holiday
- 18 Classes begin
- 22 First Saturday Class
- 24 Last day to register, add, or drop a class

March

21-25 Spring break

April

- 15 Last day to drop a class and receive a final grade of "W" by 5 p.m.

May

- 9 Last day of classes
Last day to withdraw from classes by 5 p.m.
Consultation day
- 10 Finals begin, 4 p.m.
- 17 Finals end
- 19 Grades due by noon
- 21 Commencement

Summer I 2011

May

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

May

- 23 Classes begin, Summers 1 & 2
- 24 Last day to register, add, or drop a class
- 30 Memorial Day Holiday,
No classes,
University Offices closed

July

- 4 Independence Day Holiday, No classes,
University Offices closed
- 15 Last day to drop a class and receive a final grade of
"W"

August

- 1 Last day to withdraw from all classes
- 2 Last day of classes, Final Exams
- 4 Grades due by noon

Summer II 2011

May

- 23 Classes begin
- 24 Last day to register, add, or drop a class
- 30 Memorial Day Holiday,
No classes,
University Offices closed

June

- 20 Last day to drop a class and receive a final grade of
"W," 5 p.m.
- 24 Last day to withdraw, 5 p.m.
- 27 Last day of classes
Final Exams
- 29 Grades due by noon

Summer IV 2011

July

- 4 Independence Day Holiday, No classes,
University Offices closed
- 5 Classes begin, Summer IV
- 6 Last day to register, add, or drop a class
- 15 Last day to drop a class and receive a final grade of
"W," Summer I

August

- 1 Last day to drop a class and receive a final grade of
"W"
- 5 Last day to withdraw from all classes
- 8 Last day of classes, Final Exams
- 10 Grades due by noon

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Dean of University College

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Admissions and Financial Aid

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Logan C. Hampton
Director, Donaghey Student Center

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Brad Patterson
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Assistant Director of Athletics/External Operations

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Chasse Conque
Director of Development

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Stephens Center Manager

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Director of Sales/Senior Woman Advisor

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Head Volleyball Coach

Freddie Delgado
Head Women's Soccer Coach

Joe Foley
Head Women's Basketball Coach

John Hargis
Head Women's Swim Coach

Bridgett Norwood
Head Women's Coach

Scott Norwood
Head Baseball Coach

Wyn Norwood
Director of Golf/Head Men's Golf Coach

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Stan Tabor
Cheerleading Coach

Milton Williams
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Abby Wilson
Head Women's Tennis Coach

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Graduate Program Coordinators At-a-Glance

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Bioinformatics, MS, PhD- Steve Jennings, ETAS 505, 569-8216, sfjennings@ualr.edu
Biology, MS - Stephen Grace, ETAS 125, 569-3270, scgrace@ualr.edu
Business Administration, MBA - Roger Roderick, RBUS 309, 569-8863, rdroderick@ualr.edu
Chemistry, MS, MA - Brain Berry, SCLB 477, 683-7125, bcberry@ualr.edu
Clinton School of Public Service, MPS - Mike Hemphill, mrhemphill@clintonschool.uasys.edu
Communicative Disorders, MS - Terri Hutton, SPCH 105, 569-8908, tjhutton@ualr.edu, apply through UAMS
Communication Sciences and Disorders, PhD- Terri Hutton, SPCH 105, 569-8908, tjhutton@ualr.edu, apply through UAMS
Computer Science, MS - Peiyi Tang, DKSJN 515, 569-8136, pxtang@ualr.edu
Conflict Mediation Certificate - Lori Goldman, RH 120, 683-7297, lagoldman@ualr.edu
Criminal Justice, MA, Stacy Moak, RH 521, 569-8591, sxmoak@ualr.edu, MS, David Montague, RH 539, drmontague@ualr.edu, PhD, Jeff Walker, RH 532, 569-3083, jtwalker@ualr.edu
Geospatial Technology Certificate - Margaret McMillan, LH 110, 569-3024, memcmillan@ualr.edu
Gerontology, GC, MS - Rosalie Otters, LH 205G, 569-30122, rvotters@ualr.edu
Health Sciences, MS - Donna Quimby, FH 503, 569-8124, 569-3503, dgquimby@ualr.edu
Information Quality, GC, MS - John Talburt, ETAS 549, 371-7616, jrtalburt@ualr.edu
Information Systems Leadership, GC - Robert Mitchell, RBUS 304, 569-3356, rbmitchell@ualr.edu
Integrated Computing, PhD- Kenji Yoshigoe, 569-8150, EIT 572, kxyoshigoe@ualr.edu
Integrated Sciences and Mathematics, MS - Thomas Lynch, ETAS 125H, 569-8124, tjlynch@ualr.edu
Journalism, MA - Dale Zacher, SH 705, 569-3250, dezacher@ualr.edu
Liberal Studies, MA -Angela Hunter, SH 307D, 683-7066, anhunter@ualr.edu
Management, GC - Robert Mitchell, RBUS 304, 569-3356, rbmitchell@ualr.edu
Management Information Systems, GC, MS - Janet Bailey, RBUS 224, 569-8851, jlbailey@ualr.edu
Management Information Leadership, GC- Robert Mitchell, RBUS 304, 569-3356, rbmitchell@ualr.edu
Marriage and Family Therapy, GC - Laverne Bell-Tolliver, LH 205D, 569-8466, lbtolliver@ualr.edu
Mathematical Sciences, MS - Xiaoshen Wang, DKSJN 616, 569-8100, xxwang@ualr.edu
Non-Profit Management, GC, Kim Evans, RH 642, 569-8572, khevans@ualr.edu
Professional and Technical Writing, MA - Karen Kuralt, SU-B 118, 569-8334, kmkuralt@ualr.edu
Public Administration, MPA - Diane Wigand, RH 639, 569-3211, fdwigand@ualr.edu
Public History, MA - Charles Romney, SH 601C, 569-8154, cwromney@ualr.edu
Second Languages, MA - David McAlpine, SH 304E, 569-8158, dcmcalpine@ualr.edu
Social Work, MSW - Greg Smith, LH 210D, 569-3057, gksmith@ualr.edu
Strategic Communication, GC - Jamie Byrne, SH 310A, 569-3250, jmbyrne@ualr.edu
Systems Engineering, GC, MS - Seshadri Mohan, ETAS 300B, 683-7475, sxmohan@ualr.edu
Taxation, Graduate Certificate - Robert Oliva, RBUS 211, 569-3352, rroliva@ualr.edu
Technology Innovation, GC- Gary Anderson, ETAS 429 B, 569-8021, gtanderson@ualr.edu

Education Programs

Adult Education, MEd - Carrie Boden, DKSJN 314, 569-8937, cjboden@ualr.edu

College Student Affairs, MA - John Kuykendall, DKSJN 419 B, 569-8932, jakuykendall@ualr.edu
Counseling: Rehabilitation Counseling, MA and Post-Master's Certificate - Sola Kippers, 682-5478, RH 222, smkippers@ualr.edu
Counselor Education, MEd - Jason Kushner, DKSJN 419D, 683-7443, jdkushner@ualr.edu
Early Childhood Education, MEd - Anarella Cellitti, DKSJN 304, 569-8922, macellitti@ualr.edu
Educational Administration and Supervision, MEd, EdS, EdD - Sharon Ann Richardson, DKSJN 419J, 683-7150, sarichardson@ualr.edu
Higher Education, MA, EdD- Mark Fincher, DKSJN 414, 683-7281, mefincher@ualr.edu
Learning Systems Technology, MEd - Elizabeth Vaughn-Neely, DKSJN 419 A, 569-3267, elvaughn@ualr.edu
Middle Childhood Education, MEd - Betty Wood, DKSJN 300, 569-3124, bkwood@ualr.edu
Reading Education, MEd - Pauline Moley, DKSJN 308, 683-7343, pfmoley@ualr.edu
Reading Education, EdS , PhD - Linda Dorn, DKSJN 311, 569-3124, ljdorn@ualr.edu
Rehabilitation of the Blind, MA - William Jacobson, DKSJN 515A, 569-8505, whjacobson@ualr.edu
Secondary Education, MEd - Judith Hayn, DKSJN 318, 569-8928, jahayn@ualr.edu
Special Education, MEd - Jennifer Hune, DKSJN 300D, 569-3124, jbhune@ualr.edu
Teaching the Gifted and Talented, GC, MEd - Ann Robinson, DKSJN 419C, 569-3267, aerobinson@ualr.edu



History and Mission

The University of Arkansas at Little Rock (UALR) is an interactive metropolitan university, one of a new class of American universities emerging in the past 20 years. It serves a diverse, dynamic student population in an intellectually stimulating environment that is responsive to individual needs and ready to meet the challenge of a changing society and work force. The University strives for excellence in all areas of scholarship, including discovery, integration, application, and teaching.

Classified by the Carnegie Foundation for the Advancement of Teaching as a Doctoral/Research University, UALR engages in a wide range of research activities through its faculty, staff, and students, who also interact with the community as service providers, problem solvers, and resource persons. UALR maintains numerous programs, institutes, and activities to provide its knowledge and resources to the community and society. It participates in many partnership activities with government, schools, business, industry, and the cultural community. It is the sole beneficiary of a continuing trust, established by former Governor George W. Donaghey, which funds the Donaghey Scholars Program, scholarships, special events, and lectures and assists with other University needs.

The 150-acre campus, with its red brick and concrete buildings, is an oasis in metropolitan Little Rock. Its broad lawns, shaded by pine and oak trees and ornamented by flowers and fountains, feature numerous benches and outdoor study areas, including an outdoor amphitheater set into the bank of Coleman Creek, which runs through the campus.

With a 2009 fall enrollment over 13,000 students, UALR is one of Arkansas' major educational institutions, employing over 450 full-time faculty. The University's expanded offerings now include over 50 graduate degree programs, an extensive schedule of night, weekend, off-campus classes, continuing education, web based, distance learning, and online courses as well as a wide range of community educational services. UALR is accredited by the Higher Learning Commission.

The University is growing physically to meet its increasing population. In May 2010, the six-story, 114,000 ft² Engineering and Information Technology Building containing state-of-the-art computing and other capabilities will be opened to serve the needs of a growing student population and research enterprise in this area. The Science Laboratories Building, adjacent to Fribourgh Hall, was completed in 1998 and added 80,000 square feet for the Departments of Biology, Chemistry and Earth Science. In addition, in the summer 2010, ground-breaking will take place on four new buildings designed to serve students in a variety of ways.

Ottenheimer Library is an open-stack library, with browsing privileges for the general public and checkout privileges for UALR faculty, staff, and students. The library's staff provide circulation services, access to assigned readings in the Baum Reserve Reading Room, inter-library loans (ILL), and reference assistance. Reference librarians also conduct course-specific instruction sessions and assist students accessing information through the library's on-line catalog (OPAC), electronic databases, and the Internet. The library holds more than 480,000 volumes and subscribes to about 2,000 periodicals and has access to more than 20,000 electronic journals. The library also subscribes to more than 100 electronic databases. In addition, it houses a microform collection exceeding one million items along with videocassettes, audiocassettes, phonograph albums, audio books, music compact discs, and aids for disabled users. As a selective depository for federal documents, the library receives about 30 percent of the items offered by the Government Printing Office in Washington, DC. Ottenheimer Library is the state's only depository of European Community documents and also collects Arkansas state documents. Overall, the collection contains more than 300,000 government documents.

H. Tyndall Dickinson Hall was completed in 2000. It houses most of the College of Education, as well as the Department of Mathematics and Statistics, the Department of Computer Science, and the George W. Donaghey Scholars Program. The building is structurally similar to Ross Hall, and provides classrooms, an auditorium, and offices equipped for the twenty-first century.

Some recent additions to campus include the Jack Stephens Center, the Donald W. Reynolds Center for Business and Economic Development, and the Bailey Alumni and Friends Center, completed in 2005, 2003, and 2002, respectively. The Stephens Center is home to the UALR Trojans basketball team. The Reynolds Center is a 98,700-square-foot building that contains 150 offices, an auditorium, atrium, library, and 13 modern classrooms and houses the business program as well as the Arkansas Small Business Development Center and the Institute for Economic Advancement.

The Bailey Center is a celebration of the past, present, and future--linking the heritage of Little Rock Junior College and Little Rock University with the institution we know today as the University of Arkansas at Little Rock.

In September, 2010, the George W. Donaghey College for Engineering and Information Technology building will open to house all of the undergraduate and graduate programs for that college. All three PhD programs for the college, Applied Science, Bioinformatics, and Integrated Computing, will have their headquarters in this state-of-the-art building.

Organization

Higher education in Arkansas is under the purview of the Arkansas Higher Education Coordinating Board and its administrative unit, the Department of Higher Education. UALR is part of the University of Arkansas System, a 15-campus system administered by a president and Board of Trustees.

Within this structure, UALR is state-assisted and operationally separate. It is composed of eight colleges and schools administered by deans: the Graduate School, the School of Law, the Colleges of Arts/Humanities/Social Sciences, Business, Education, Professional Studies, Science and Mathematics, and the Donaghey College of Engineering and Information Technology. Each college is divided into academic departments administered by chairpersons.

The chief administrative officer at UALR is the Chancellor, assisted by the Board of Visitors (an advisory body with no policy-making powers), the University Assembly, Faculty Senate, and Staff Senate. Student representatives have both voice

and vote in the Faculty Senate. Also reporting to the chancellor are the provost and vice chancellor for academic affairs, vice chancellor for university advancement, vice chancellor for finance and administration, and vice chancellor for educational services. Other policy-making or advisory groups include the Graduate Council, Undergraduate Council, Chancellor's Cabinet, Policy Advisory Committee, Deans Council, and Department Chairs Council.

Explanation of the University Mission, Role, and Scope

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.

University of Arkansas System Mission

The University of Arkansas 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)

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)

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)

Role and Scope

Board of Trustees

The University of Arkansas at Little Rock (UALR) is a Carnegie Doctoral/Research University offering a comprehensive range of undergraduate, masters, 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)

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 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)

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 – and to 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 curricula.

Accreditations and Affiliations

The University of Arkansas at Little Rock is fully accredited by the North Central Association of Colleges and Schools and the Higher Learning Commission (for more information, see www.ncahlc.org). Specific degree programs and their accreditations follow.

- The Department of Art is an accredited institutional member of the National Association of Schools of Art and Design.
- The Department of Music is accredited by the National Association of Schools of Music.
- The Department of Theatre is accredited by the National Association of Schools of Theatre.
- The undergraduate program in business and the master of business administration are accredited by the American Assembly of Collegiate Schools of Business.
- All eligible programs in the College of Education are accredited by the National Council for Accreditation of Teacher Education.
- The audiology and speech pathology programs of the Department of Audiology and Speech Pathology are accredited, and the department is approved as a continuing education sponsor, by the Education Services Board of the American Speech-Language-Hearing Association.
- The Department of Military Science is accredited by the United States Army Cadet Command, 4th ROTC Region.
- The Basic Animal Services Unit is accredited by the American Association for Accreditation of Laboratory Animal Care and is registered with the United States Department of Agriculture.
- The bachelor of science program in chemistry is approved by the Committee on Professional Training of the American Chemical Society.

- The associate of science program in nursing is approved by the Arkansas State Board of Nursing and the National League for Nursing Accrediting Commission.
- The four-year baccalaureate, construction management program is fully accredited by the American Council for Construction Education (ACCE). The ACCE is recognized by the Council for Higher Education Accreditation as the national accrediting agency for four-year baccalaureate programs in construction education.
- The bachelor of science in computer science program is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board.
- Both the associate and bachelor of science degrees in the electronics and mechanical engineering technology programs and the bachelor of science degree in computer engineering technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).
- The systems engineering program is accredited by the Accreditation Board for Engineering and Technology (ABET).
- The master of public administration program is accredited by the National Association of Schools of Public Affairs and Administration.
- The health services administration program is accredited by the Accrediting Commission on Education for Health Services Administration.
- The undergraduate and graduate programs in social work are accredited by the Council on Social Work Education Commission on Accreditation.
- The School of Law is accredited by the American Bar Association and the Association of American Law Schools.

Academic affiliations include:

- The American Association of Colleges for Teacher Education
- The American Assembly of Collegiate Schools of Business
- The American Association of University Women
- The American Association of State Colleges and Universities
- The Association of Urban Universities
- The Conference of Southern Graduate Schools
- The Cooperative Assessment of Experiential Learning
- The Council of Graduate Schools in the United States, International Institute for Learning
- The National Association of Summer Sessions
- The National Commission on Accrediting
- The National University Extension Association
- The North Central Conference on Summer Schools.

UALR is a Service-Members Opportunity College.

Guide to Graduate School

UALR Graduate School

The UALR Graduate School is the central administrative unit providing leadership, coordination, and services for graduate students. Together with the individual graduate programs, departments, colleges, and 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 third floor of the Administration North Building, and staff members are glad to assist students with any questions or problems.

Graduate School admission staff process applications, handle enrollment questions, and maintain student records. Graduate School staff also manage the graduate assistantship program, produce academic and promotional materials, assist with recruiting and marketing efforts, prepare research reports from the student data base, and provide logistics support for the Graduate Council.

The Graduate School is also home to the Graduate Student Association (GSA). The GSA serves as a general advocate for graduate students and their interests and sponsors an annual research forum at which graduate students present their scholarly work.

Office of Research and Sponsored Programs

The Office of Research and Sponsored Programs (ORSP) provides leadership, coordination, and services for faculty and staff members seeking external funds that contribute to strengthening all forms of scholarship at UALR. As the single point of contact for all activities between UALR and its external sponsors, ORSP administers grant and contract research and other activities supported by outside funds, assists faculty and staff in preparing grant proposals, and disseminates information on research and program trends and sources of support from sponsoring agencies. ORSP also coordinates the work of the Institutional Review Board (IRB), the Institutional Biosafety Committee (IBC) and the Institutional Animal Care and Use Committee (IACUC) and provides limited assistance to graduate students seeking grant sources.

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 Graduate School as a separate academic and administrative unit was created in 1977, although graduate course work had been offered since 1975. The Director of ORSP reports to the Vice Provost for Research and Dean of the Graduate School, who 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.

Program	Certificate or Degree Program
Adult Education	Master's (M.Ed.)
Accountancy	Graduate Certificate, Master's (MACC)
Applied Communication Studies	Master's (MA)
Applied Science	Master's (MS) and Doctorate (PhD)
Applied Statistics	Graduate Certificate
Art	Master's (MA)
Audiology	Doctorate (AuD)
Bioinformatics	Master's (MS) and Doctorate (PhD)
Biology	Master's (MS)
Business Administration	Master's (MBA)
Chemistry	Master's (MA) and (MS)
Clinton School of Public Service	Master's (MPS)
Communication Sciences and Disorders	Doctorate (PhD)
Communicative Disorders	Master's (MS)
Computer Science	Master's (MS)
Conflict Mediation	Graduate Certificate
Counseling: Rehabilitation Counseling	Post Master's Certificate and Master's (MA)
Counselor Education	Master's (MEd)
Criminal Justice	Master's (MA) and (MS), Doctorate (PhD)
Early Childhood Education	Master's (MEd)
Educational Administration and Supervision	Master's (MEd), Specialist (EdS), Doctorate (EdD)
Gerontology	Graduate Certificate, Master's (MA)
Geospatial Technology	Graduate Certificate
Health Sciences	Master's (MS)
Higher Education	Master's (MA), Doctorate (EdD)
Information Quality	Master's (MS) and Graduate Certificate
Information Systems Leadership	Graduate Certificate
Integrated Computing	Doctorate (PhD)
Integrated Science and Mathematics	Master's (MS)
Journalism	Master's (MA)
Law (Contact the Law School)	Juris Doctorate (JD)
Learning Systems Technology	Master's (MEd)
Liberal Studies	Master's (MA)
Management	Graduate Certificate
Management Information Systems	Master's (MIS) and Graduate Certificate
Marriage and Family Therapy	Post Master's Certificate
Mathematical Sciences	Master's (MS)
Middle Childhood Education	Master's (MEd)
Non-Profit Management	Graduate Certificate
Professional and Technical Writing	Master's (MA)
Public Administration	Master's (MPA)
Public History	Master's (MA)
Reading	Graduate Certificate, Master's (MEd), Specialist (EdS), Doctorate (PhD)
Rehabilitation of the Blind	Graduate Certificate, Master's (MA)
Second Languages	Master's (MA)
Secondary Education	Master's (MEd)
Social Work	Master's (MSW)
Special Education	Master's (MEd)
Systems Engineering	Graduate Certificate, Master's (MS)
Taxation	Graduate Certificate, Master's (MS)
Teaching the Gifted and Talented	Graduate Certificate, Master's (MEd)
Technology and Innovation	Graduate Certificate

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.

Admissions

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 the University of Arkansas at Little Rock (typically at least 120 hours or the equivalent of a 4-year baccalaureate degree). Most programs require a 3.0 GPA on the last 60 undergraduate hours (including post-baccalaureate hours) for admission. 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.

Students must satisfy Graduate School requirements and those of the program to which they seek admission. The section of this Catalog on each degree program includes admission requirements for that program.

Some degree programs require the Graduate Record Examination, (GRE), Miller Analogies Test (MAT), or Graduate Management Admission Test (GMAT). Generally, scores more than five-years-old are not accepted. Test scores alone do not determine admission to a program but are one 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 programmatic 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.

Immunizations

UALR interprets an Arkansas State law to require all applicants to provide proof of immunization for measles, mumps, and rubella if born on or after January 1, 1957. Forms are available in the Graduate School and must be returned with proof of immunization. The vaccination can be administered at Office of Health Services on campus for no charge for students who need it.

The Application Process

Applying to Graduate School is just one click away. All students are required to apply online at <https://boss.ualr.edu> and pay the application fee of \$40.00. After submitting your application on BOSS, notify all institutions where you did your undergraduate work to send official transcripts to:

University of Arkansas at Little Rock
Attention: Graduate School
Administration South Bldg. - Third Floor
2801 South University Avenue
Little Rock, Arkansas 72204

A non-refundable application fee of \$40.00 will be required at the time of application submission. No processing of the application will be performed until the fee is received.

Please refer to your program of study to find out if additional items are needed to complete your application file. You may monitor the status of your application on BOSS.

It is the applicant's responsibility to ensure that all admission documents are received in the Graduate School in a timely manner. All credentials submitted by or on behalf of an applicant become the property of UALR and be retained for one year. Materials from applicants who do not submit all requested material 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. Section 5-37-105 of the Arkansas Code makes it a misdemeanor, punishable by fine and/or imprisonment, "to present a transcript, diploma, or grade report from a post-secondary educational institution in a fraudulent manner." Withholding information or submitting inaccurate information may make people ineligible for admission and subject to dismissal from the Graduate School.

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. In general, materials for Fall admission should be received by May 31; for Spring admission, by October 15; and for Summer admission, by March 31. 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, contact the program coordinator, the Graduate School or the website online at http://ualr.edu/gradschool/program_deadlines.html.

Reapplication

A graduate student who has not been enrolled for a period of two calendar years will be classified as inactive. To resume graduate study, the student must reapply for admission. Some programs have shorter periods before classifying the student as inactive. The submission of the \$40.00 application will be required before the new application can be processed.

Audiology and Speech Pathology

Applications to the Master of Science in Communicative 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. Students may not be eligible for financial aid while being considered for admission to the Graduate School.

International Students

International students must submit complete credentials and detailed information before being considered for admission. Requirements are:

- **Application Form:** available on the UALR BOSS web site at <https://boss.ualr.edu>
- **Application Fee:** nonrefundable \$40 fee must be received.
- **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.
- **Articulation of International Transcripts is Required:** 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 matriculation.
- **English Proficiency Certification:** applicants whose native language is not English must submit scores on the Test of English as a Foreign Language (TOEFL) 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. These minimum scores are required even if the applicant completed a baccalaureate degree at a U.S. college or university. Applicants will not be admitted as regular students nor allowed to enroll into academic programs until the 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 (www.ualr.edu/testing) or from the Educational Testing Service (www.ets.org), Box 899, Princeton, New Jersey 08540 U.S.A. United States consulates and embassies may provide information.
- **Financial Statement:** students must provide certified proof that they are financially capable of pursuing an education in the US. Estimated cost for books, tuition, fees, and living expenses will be \$18,500 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 have proof of health and accident insurance coverage. Purchase must be made on arrival at the University. Policies are offered through Student Health Services.
- **Tuberculosis Screening:** All international applicants will be expected to comply with the Arkansas Department of Health directive concerning tuberculosis screening.
- **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.

Other important considerations are:

- **Housing Facilities:** UALR has limited on-campus housing. For more information visit <http://ualr.edu/housing/>.
- **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. Note: graduate assistants are not allowed to work off-campus.

Admission Status

Student may be admitted in one of these categories:

- **Regular (degree-seeking):** completed and submitted all admission materials; met Graduate School and program admission requirements.
- **Conditional (degree-seeking, non-degree-seeking):** supplied all admission materials; did not meet all admission requirements. Test scores, grades in the undergraduate major, or other pertinent data must indicate student will perform satisfactorily in Graduate School. The student will be dismissed during the first 12 hours if GPA is not above

3.0 or satisfactory progress is not being made toward this GPA. Applicants dismissed from, or on probation or otherwise not in good standing, in another graduate or post-baccalaureate program will not be admitted. Educational Specialist applicants are not eligible for conditional admission.

- Transient (degree-seeking): accepted as a degree-seeking student in another accredited graduate school; have letter of good standing from that graduate school dean. Should have agreement from home campus advisors that UALR courses will be suitable to their degree programs; should consult in advance with appropriate program coordinator to ensure proper preparation for and permission to enroll in courses. Normally admitted for only one semester.
- Special (non-degree seeking): met admission requirements. For persons who want a limited number of graduate hours (6) for professional advancement or personal enrichment. Although test scores are not usually required, transcripts are.

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 six hours can be earned while classified as a special student. Special students enrolling in most classes offered by the College of Education have additional requirements. They must contact the associate dean's office in the College of Education 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.

New Student Orientation

Orientation sessions are scheduled throughout the entire school year. In addition to or in lieu of attending one of the orientation sessions, students may visit our online orientation program at <http://gradschool.ualr.edu>.

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 course start 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. Deadline dates are enforced. Application and enrollment assistance may be provided on site in some situations, but not as a rule.

Registration Guide

Online Registration Guide and Class Schedule

After you are generally familiar with the *Catalog*, the next step toward taking courses at UALR is to view the UALR Registration Guide and Class Schedule online at <http://boss.ualr.edu/>.

The UALR Registration Guide/Schedule contains information on the web registration process and lists the courses that will be offered during specific semesters by course, time, location, and instructor. The Guide/Schedule also contains the academic calendar, the final examination schedule, and deadlines for various activities during the semester.

UALR offers courses in the fall, spring, and summer. The Summer semesters are divided into one 10-week term (Summer I), and three 5-week terms (Summer II, III, and IV). 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 via the internet 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 other than 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

CRN	SUBJ	CRSE	SEC	CREDITS	TITLE		CAMPUS	
Part of Term	START DATE	END DATE	DAYS	TIMES	BLDG	ROOM		
63249	IGSC	7391	10	3.00	Integrated Science Coop Ed		Main	
Full Term	Aug 19, 2010	Dec 14, 2010	TBA	TBA	TBA	TBA		
Instructor(s): Forrest E Payne								

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 you have to read the UALR Registration Guide and Class Schedule carefully.

A typical course entry is listed above and an explanation of each part of this listing is provided below.

63249: 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.

IGSC: 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.

7391: The course number assigned by the department. It indicates the level and number of credit hours for the course. See "Course Number" on page 240 for more details.

01: The section number assigned by the department. See "Section" on page 241 for more details.

3.00: The number of credit hours the course is worth.

Integrated Science Coop Ed: 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.

Aug 19, 2010: The semester start date.

Dec 14, 2010: The semester end date.

TBA: The days the class meets, in this case each Monday, Wednesday, and Friday. Other abbreviations include "MW" or Monday and Wednesday, "TH" 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.

TBA: 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.

TBA: The room number where the class will meet.

Instructor(s): 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.

Four-letter Course Codes

ACCT	Accounting
ADED	Adult Education
ADVT	Advertising
AMHU	American Humanics: Nonprofit Professional Studies
AMST	American Studies
ANTH	Anthropology
ARED	Art Education
ARHA	Art History and Appreciation
ARSD	Applied Design
ARST	Studio Art
ASCI	Applied Science
ASTR	Astronomy
AUSP	Audiology & Speech Pathology
BIOL	Biology
BSAD	Business Administration
CHEM	Chemistry
CPSC	Computer Science
CNMG	Construction Management
COUN	Counseling
CNSL	Counselor Education
CRJU	Criminal Justice
DANC	Dance
DRPE	Drama Performance
DRTE	Technical Theatre
DRTH	Drama Theory
DRAT	Dramatic Arts
ECED	Early Childhood Education
ECET	Electronics & Computer Engineering Technology
ECON	Economics
EDAS	Educational Administration & Supervision
EDFN	Educational Foundations
ENGL	English
ENHS	Environmental Health Sciences
ERSC	Earth Science
ETME	Mechanical Engineering Technology
FINC	Finance
FNAR	Fine Arts
FREN	French
GATE	Gifted & Talented Education
GEOG	Geography
GERM	German
GERO	Gerontology
GNST	Gender Studies
HSAD	Health Services Administration
HSCI	Health Sciences
HIED	Higher Education
HIST	History
IFSC	Information Science
ITEC	Information Technology
IREC	Instructional Resources
IGSC	Integrated Science and Mathematics
INTS	International Studies
INTR	Interpreting For The Deaf
JOUR	Journalism
LANG	General Foreign Language
LAW	Law
LESC	Leisure Science

LIST Liberal Studies
LSTE Learning Systems Technology
MATH Mathematics
MCED Middle Childhood Education
MGMT Management
MKTG Marketing
MSCI Military Science
MUAP Applied Music
MUED Music Education
MUEN Music Ensemble
MUHL Music History and Literature
MUPR Music: Private Instruction
MUTH Music Theory
NURS Nursing
PADM Public Administration
PEAW Personal Awareness
PHIL Philosophy
PHYS Physics
POLS Political Science
PSYC Psychology
READ Reading
RHBL Rehabilitation of the Blind
RELS Religious Studies
RHET Rhetoric And Writing
RTVF Radio Television and Film
SCHL Donaghey Scholars
SCED Secondary Education
SOWK Social Work
SOCI Sociology
SPAN Spanish
SPED Special Education
SPCH Speech Communication
STAT Statistics
SYEN Systems Engineering
TCED Teacher Education
TDHH Teaching Deaf and Hard of Hearing Students
URST Urban Studies

Tuition and Fees

UALR Graduate School

The following tuition and fee information was subject for approval at the time of publication. For the most accurate and comprehensive tuition and fee information, visit <http://financialservices.ualr.edu/tuition.html>. 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.

Concurrent Enrollment

Concurrent enrollment is permitted, subject to the approval of the appropriate academic advisors.¹ Students are only eligible to receive financial aid funding from their primary institution.

Graduate Tuition (per credit hour)

Arkansas Residents	
Per Semester Credit Hour	\$245.00
College of Business Courses	\$252.00 per hour
Donaghey College of Engineering and Information Technology Courses	\$252.00 per hour
Nonresidents	
Per Semester Hour	\$556.50
College of Business Courses	\$561.75 per hour
Donaghey College of Engineering and Information Technology Courses	\$561.75 per hour

Fees for All Students (per credit hour)

Required Fees:	
Facilities (excluding Law School)	\$3.00
General	\$16.25
Athletic	\$15.00
Health Services	\$1.50
Technology Infrastructure	\$2.50
Application Processing (1st Time Applicant)	\$40.00
Re-application Processing (Per re-application)	\$15.00
College Technology Fees:	
Arts, Humanities and Social Sciences Courses	\$7.70
Business Courses	\$7.30
Education Courses	\$7.70
Engineering and Information Technology Courses	\$11.30
Professional Studies Courses	\$7.70
Science and Mathematics Courses	\$11.75
Off-Campus Courses (includes web based courses)	\$25.00

Special Fees (as applicable):

1. A student should obtain a Special Exception form for this purpose in the Office of Records and Registration.

Fees for All Students (per credit hour)

Campus ID Card Replacement	\$15.00
Installment Payment Plan	\$30.00
International Student Application	\$40.00
International Student Service (per term)	\$125.00
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:	
Art Studio Materials (per hour)	\$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	\$15.00
Performing Arts Production (per hour)	\$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	\$1,627.5
Single Bedroom	\$2,275.50
Laundry Fee	\$33.00
Summer (per five-week term)	
Double Bedroom	\$430.50
Single Bedroom	\$628.95
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	\$400 – \$750
a) Depending on size, furnishings, and condition.	

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 \$150.00 annually for twenty four hour access. Lot choices are lot #'s 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 meter 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 <http://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 from UALR

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, 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.¹ Students who have questions about withdrawing should contact the Office of Records and Registration.²

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.

Financing Graduate Education

Financial Assistance

Applicants must be fully admitted (regular 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.

Graduate Assistantships

Graduate assistantships are available through graduate programs or departments and the Graduate School. To be qualified, students must be fully admitted (regular admission) to a degree-granting graduate program with a minimum course load of nine graduate hours and be recommended by the program coordinator. Audited courses will not count toward the nine-hour requirement and are not covered by the tuition credit. Students who drop below the nine-hour requirement by withdrawing from one or more courses are not eligible for graduate assistantships. Graduate Assistants must remain in good academic standing with a cumulative GPA of 3.0 or above.

Assistantships usually include a tuition scholarship and a stipend of at least \$6,450 (20 hours per week for 2 semesters) or \$3,225 (10 hours per week for 2 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, contact the Graduate School at www.gradschool.ualr.edu or the appropriate program coordinator.

Office of Admissions and Financial Aid

The UALR Office of Admissions and 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 Admissions and Financial Aid at (501) 569-3127 or online at <http://www.ualr.edu/admissions>.

Federal Aid Programs

To apply, students must complete a current Free Application for Federal Student Aid (FAFSA). The priority deadline for financial aid applications is March 1 for Fall semester. Students should return the completed financial aid application to UALR for electronic filing. 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. Federal aid programs include:

- **Stafford Loan** (formerly Guaranteed Student Loan): long-term loan for students enrolled at least half time. Funds are borrowed from a private lender. Repayment begins six months after student is not enrolled at least half time.

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.

TAMS (Tuition Assistance for Minority Students)

Visit the Teaching Enhancements Affecting Minority Students (TEAMS) web site at <http://www.ualr.edu/teams>.

Scholarships

Scholarships are awarded for both full- and part-time students through the UALR Office of Development and various UALR schools and colleges. Complete a UALR Scholarship Application and the applications for scholarships required by the various schools and colleges. UALR Scholarship Applications should be submitted to the Office of Development. Deadlines for scholarships may vary.

Veterans Benefits

The U.S. Department of Veteran's 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 Admissions and Financial Aid, (501) 569-3127 and online at <http://www.ualr.edu/admissions>

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

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. Students must be advised each semester before enrolling. Some programs use the student information system to require 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. In order 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 lie or misrepresent their background in their application materials.

If the false, misrepresented, or misleading information on the application portfolio is discovered

Before the application process is complete

- the application will not be processed and no admission offer will be forthcoming

After admission and prior to enrollment

- the admission offer will be rescinded

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

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 lied, 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 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 the 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.

Sufficient proficiency in SAE speech and writing is expected of all graduate students. Minimum proficiency levels are defined in the English Proficiency Certification paragraph in the International Student section of the Graduate Catalog (http://ualr.edu/gradschool/assets/archive/2009catalog/Graduate_Catalog_2009.pdf).

Applicants whose first language is not English must demonstrate proficiency. The preferred method of demonstrating English proficiency is the TOEFL examination. However, the Graduate School may approve other recognized tests on a case-by-case basis. Each academic unit may reserve the right to require students to have greater proficiency than the minimum standards described in the Graduate Catalog, to pass a written English proficiency exam given during their first academic year at UALR, and/or secure remedial instruction if necessary. For an applicant whose first language is not English, but who does have a degree from a regionally-accredited U.S. institution of higher education, the requirement for

demonstrated proficiency in English may be waived. Some units may require knowledge of one or more foreign languages for advanced degrees. For information, the student should contact the program of interest.

Registration and Enrollment

UALR's registration information is posted online on the BOSS web site at <https://boss.ualr.edu>.

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.

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 Admissions and Financial Aid (501-569-3127) to determine the impacts of auditing a course on financial aid.

Course Load

A full-time graduate student must be enrolled for 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 load for summer terms are: 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 at <https://boss.ualr.edu>. 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 better 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 better.

Courses without letter grades (graded credit, satisfactory, pass) must be accompanied by official evidence that such grades equated to a B or better at the institution at which they were earned. Accredited graduate programs usually accept transfer credits only from similarly accredited programs. Correspondence courses are not accepted for graduate credit. (Also see Workshop Credit Limits" below.)

Transfer grades are not computed as part of a student's GPA.

Individual programs may accept fewer transfer hours than the Graduate School. Decisions on credit transfer are normally made and recorded immediately after the student has been admitted. 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 Administration 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: A, excellent; 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. The Graduate School uses the cumulative grade point average (GPA) 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. The semester grade report shows both the semester GPA and a cumulative GPA based on all graduate work taken at UALR.

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. A formal process to appeal a final grade decision is found online at <http://www.ualr.edu/www/handbook/handbook.html> and as described in the UALR Student Handbook.

Repeated Courses

Only under extraordinary circumstances will a student be allowed to repeat a course in which (s)he 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 any 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 better (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.

Graduate students should contact the UALR Office of Admissions and Financial Aid (501-569-3127) to determine the impacts of repeating courses on financial aid.

Academic Probation

Graduate students who do not maintain at least a 3.0 cumulative GPA (B average) on all courses are 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 during their next enrollment periods or whose GPA cannot be raised to 3.0 or better within 12 credit hours are subject to dismissal from the Graduate School. For part-time students, the "next enrollment period," may, if approved by the program coordinator, be defined as the next 12 hours. Note: Some programs may have higher GPA or course program performance requirements.

In Progress (IP) Grade

An In Progress grade (IP) is used for classes such as thesis, dissertation, and 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 by 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.

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 F's. 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 <http://online.ualr.edu/ofs/cs.html>.
- Transcripts presented for admission or evaluation of credit 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 programs require at least 30 hours of graduate credit and a cumulative GPA of at least 3.0 on all graduate courses 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 specialists 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. For doctoral students, the process may involve filing an Advancement to Candidacy notice.

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.

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 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

- the UALR Graduate Catalog
- the university student handbook
- the university's graduate student 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 Graduate School at UALR. Every UALR graduate student is expected to perform his or her academic, research, artistic, scholarly, and other creative activities in a fashion reflective of the highest standards of the university, his or her profession, and a functional civil society. Academic dishonesty is considered to be a violation of these standards.

Academic dishonesty involves cheating in the most general sense of the word and includes, but is not limited to

- the giving or receiving of any unauthorized assistance between multiple students
- the giving or receiving of unfair advantage
- plagiarism (i.e., claiming as one's own 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 Academic Integrity and Grievance Policy of the Faculty Handbook (<http://www.ualr.edu/provost/appeals.pdf>).

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 areas of

- 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 this 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 Academic Integrity and Grievance Policy of the Faculty Handbook (<http://www.ualr.edu/provost/appeals.pdf>).

While a student is under investigation for academic dishonesty or research misconduct, the graduate student 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 subjected 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 a 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 rDNA, living tissue, pathogens, etc.).

Before collecting data that involves human subjects, animals or biomaterials, 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

- 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

- Publication in the 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 to the ProQuest database

Information related to UALR research compliance may be obtained from the UALR Research Compliance Office, c/o the Graduate School, Administration North - 3rd Floor, 2801 South University Avenue, Little Rock, AR 72204. Contact the Research Compliance Officer at 501-569-8583.

Thesis/Dissertation

If a thesis is required, it 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 their projects. The *UALR Dissertation and Thesis Guidelines* is available online at <http://www.ualr.edu/gradschool/pdfs/thesisguide.pdf>.

Most activities in which information about humans is recorded, including all theses and dissertations and some class projects, 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 is 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 web site (<http://www.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 three bound copies of theses/dissertations (four copies for joint programs) and the electronic submission of theses and dissertations to ProQuest. 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, or they can have copies bound for distribution to the Graduate School and campus by the appropriate deadlines. (See *UALR Dissertation and Thesis Guidelines* for more information and fees.) One typed, unbound copy of the completed and approved document must be delivered to the Graduate School before the planned graduation date. After review by the Graduate School Dean, it will be returned to the student for corrections, for copying, or for binding by appropriate deadlines. Deadlines for the receipt of all graduation requirements are given on the Graduate School web site at www.gradschool.ualr.edu. The transcript showing the degree earned will not be released until the Graduate School has received copies of thesis or dissertation and ProQuest has received the electronic version.

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 the semester before 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 online at <https://boss.ualr.edu>). Failure to apply to graduate by the published deadline will result in the degree being awarded the following 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 two times each year--at the end of the Fall and Spring semesters. Master's students may participate (walk) 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, 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.

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, and colleagues; their biographies are reviewed by a special University committee of faculty, staff, and students; and students selected to receive the honor are presented to the Office of Student Activities coordinator, who presents the names to be included in the national publication.

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 and the Office of Admissions and Financial Aid if 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 (<https://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 <http://www.ualr.edu/www/handbook/handbook.html>.

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, e-mail, 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 found online at <http://www.ualr.edu/www/handbook/handbook.html> and 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 students' responsibility to be familiar with the *UALR Student Handbook*

(<http://www.ualr.edu/www/handbook/handbook.html>), which details student rights, responsibilities, and expected conduct; rules and regulations of the University; and procedures for grievance, appeals, due process, etc.

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 the 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 <http://www.ualr.edu/www/handbook/handbook.html>. 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.

Student Services

Educational and Student Services

The vice chancellor for educational and student services has the general responsibility for coordinating services to students. These services include admissions, academic advising, academic records, the UALR Bookstore, cooperative education, counseling and career planning, dining services, disability support services, fitness and aquatics, health services, housing, personal enrichment courses, intramural and recreational activities, orientation programs, registration, student activities, and testing services and student life research.

Adult Learners (Nontraditional Students)

Adult learner is defined as a student 25 years of age or older who is beginning or returning to school after being away from college for a number of years and who plans to enroll in credit courses.

To respond more effectively to this group's needs, the Office of Campus Life serves as an advocacy and referral office and assists new adult students.

Support for adult learners includes help with questions, peer support, and opportunities to enhance a positive sense of self. Special interest sessions for adult learners are also provided, and advising is offered to organizations targeting adult learners. For more information about these services and programs, contact the Office of Campus Life.

Alumni Association

The UALR Alumni Association sponsors a variety of activities for students and former students including homecoming, reunions, speaker series, and other special events. The association offers several scholarships, including one to a second-generation student, and it cosponsors GradFest each fall and spring semester. Members receive on-campus discounts and receive *Alumnus*, the publication of the Alumni Association. The Alumni Association offers a basic membership option or membership in a specific constituency group, and is open to all former students of UALR and its predecessor institutions (Little Rock University and Little Rock Junior College) for a small annual membership fee.

Bookstore

The UALR Bookstore is located in the Donaghey Student Center complex and is the book center for the campus community. In addition to providing required and recommended textbooks, the Bookstore has a general book department with a basic selection of books, special promotions, school and office supplies, and a special order service. The gift department includes jewelry, imprinted clothing, and greeting cards. University class rings are ordered individually for graduating students. The Bookstore is managed by Barnes and Noble Bookstores, Inc., and is a member of the National Association of College Stores and the Southwest College Bookstore Association.

Campus ID Card

The UALR photo Campus Card is required to access the Donaghey Student Center Fitness and Aquatics Center, library, athletic events, and special activities, and to perform check cashing and enrollment adjustments. The ID Card is also used as a debit card for those receiving book vouchers. The card may not be used by any person other than the one to whom it is issued, and it must be surrendered on the request of any official of the University. If an ID card is lost, another can be obtained at the Donaghey Student Center for a fee. Campus Cards are issued at the Donaghey Student Center during regular operating hours.

Office of Campus Life

The professional staff members in the Office of Campus Life are dedicated to the development of the whole student, believing that the best way to educate people is to integrate fully all objectives of learning.

The Office of Campus Life has primary responsibility for new student orientation and programs, advocacy programs for women, adults and minorities, campus celebrations, social Greek life advisement, registration and advisement of student organizations, allocation and administration of the student activity fee, peer tutoring services, and administrative support for registered student organizations. For more information regarding the above programs and services, contact the Office of Campus Life.

Counseling and Career Planning Services

UALR's Office of Counseling and Career Planning offers assistance in personal counseling, career and educational planning, and the job search. Individual appointments with a counselor are available to facilitate progress toward life goals and to help overcome problems. The office also has many tools to help students in their career goals, from interest finders and occupational information to job listings. All students are invited to visit the office, in Ross Hall 417, to take advantage of the many resources it offers. For all additional assistance and information, please visit UALR's Counseling and Career Planning web site at http://www.ualr.edu/ccps_dept/.

Disability Support Services

It is the policy of UALR to accommodate students with disabilities including, but not limited to, physical, sensory, learning, psychiatric, and medical disabilities, pursuant to federal and state law. Any such student who needs accommodation, for example in seating placement, or in arrangements for note-taking, examinations, or access to information on the web, should inform the instructor at the beginning of the course. The chair of the department offering the course is also available to assist with accommodations.

Other services available to students with disabilities include specialized orientation to the campus, assistance with course registration, assistance with class schedule preparation, special parking permits (visit Health Services), reader and interpreter services, adaptive equipment, and disability-related counseling. Disability Support Services also facilitates classroom and testing modifications provided by faculty.

Disability Support Services currently has two U.S. Department of Education grant-funded programs. Project PEC is funded through a contract with the Postsecondary Education Consortium at the University of Tennessee. Funds have been used for development of model programs as well as outreach to the state in the area of serving students who are deaf or hard of hearing. Project PACE focuses on providing information and training to faculty and administrators on how best to teach students with disabilities. To reach Project PACE, call (501) 569-8410.

For more information, contact Disability Support Services by visiting <http://www.ualr.edu/dssdept/> or call (501) 569-3143. The office is located in the Donaghey Student Center, room 103.

Donaghey Student Center

The 180,000 square foot multifunction Donaghey Student Center complex is guided by a three-part mission: to establish a climate that nurtures personal wellness and encourages individuals to be positive contributors to society; to support the mission of the University by providing a diversity of facilities, programs, and services to enhance the educational environment and improve the quality of college life; and to be a place of convergence that provides a sense of campus community and linkage to the University's public.

The Donaghey Student Center houses the Bookstore, dining services, the Office of Educational and Student Services, intramural-recreational services, Disability Support Services, Health Services, Leisure Science, Campus Life, and the facility's administrative offices. There are also offices for the Student Government Association, UALR Forum, University Program Council, and over 40 student organizations.

The contemporary complex features full dining services, catering and conference facilities and services, meeting and banquet rooms, a food court with national franchises, a TV lounge, cyber cafe, and other facilities and conveniences to serve the needs of the campus community.

The fitness and aquatics section of the Donaghey Student Center showcases an Olympic-sized pool; a weight room with variable resistance machines and free-weights; cardiovascular training equipment including stair steppers and exercise bikes; basketball, volleyball, wallyball and racquetball courts; a one-eighth mile running track; steam rooms and saunas; and more.

Students, faculty, and staff may access these facilities with a valid Campus Card (student ID). Family members may also join for a nominal fee. A variety of sports equipment, e.g., basketballs and racquets, are available at no charge at the equipment services counter. Locker and towel service is available at a nominal fee.

Many programs are available, including fitness, aquatic, intramural sports, and leisure and wellness activities. Services include land and water aerobic classes, strength training and conditioning assistance, fitness screenings, weight control seminars, and intramural tournaments in basketball, volleyball, golf, and more.

The Donaghey Student Center is professionally affiliated with the National Association of College Auxiliary Services, the Association of College Unions-International, and the National Intramural-Recreational Sports Association. For more information about the facilities and services call (501) 569-3362 or visit: <http://www.ualr.edu/dsc/>.

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.

Each spring, GSA holds a Graduate Student Forum at which interested students can present scholarly papers to the University community. GSA elects and appoints students to committees that perform various services for the student body, such as advising the library on student needs. The association is an affiliate of 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. All graduate students, full-time or part-time, are automatically members and are encouraged to participate. For more information, ask in the Graduate School office or call 569-8659.

Greek Organizations

UALR has a wide variety of Greek social fraternities and sororities, as well as honor and recognition societies and professional fraternities. These traditional college student organizations (called Greek organizations because of their Greek names) provide democratic, social, and leadership experience; give value beyond the college years; create an ever-widening circle of service beyond membership; answer the yearning for spiritual expression and guidance; and fill the need to belong. Membership is by invitation, following a formal "rush week" during which each sorority and fraternity holds parties for potential members to learn about the organizations. For more information or to participate in rush week, call the Office of Campus Life, 569-3308.

Health and Accident Insurance

Students are responsible for their own health and accident coverage while enrolled at UALR. An optional student group health insurance plan is offered to UALR students, their spouses, and dependent children. Information and applications are available in the Office of Health Services. Students must apply for this health insurance plan within 30 days of the first day of class for the fall term or may enroll at the beginning of the spring semester on a prorated basis for eight months. Insurance is mandatory for international students.

Health Services

The Office of Health Services is located in the Donaghey Student Center and is staffed by nurses Monday through Friday (the Department of Public Safety will respond to an emergency 24 hours a day). Readily accessible health information, screening programs, immunizations, assessment and medication for common illnesses, first aid, and medical referrals are provided to enable students to take full advantage of academic opportunities.

Health service programs are free and available to all students. However, students may be referred to a physician or local health care facility for definitive care and are responsible for these medical expenses. Staff can provide follow-up care such as blood pressure checks, dressing changes, and weight management information.

Physical examinations are not required of UALR students, but proof of immunization for measles and rubella is required of all applicants born after January 1, 1957. Students with medical problems or physical disabilities are encouraged to fill out a brief information card at the Office of Health Services by the end of the first week of classes. All patient information is confidential.

Housing

The University offers a variety of housing services coordinated by the Office of Student Housing. Services include a residence hall, University-owned houses and apartments, and housing and roommate referral.

The residence hall houses 306 students, with controlled security-card access and a 24-hour staffed reception desk. Each two-bedroom suite accommodates four students and includes a bath and kitchenette. Cable television service and computer access is provided in every student room. Telephone service is available in every student room for a nominal fee. The hall provides a computer lab, study and television lounges, recreation room, mail service, and laundry and vending machines.

UALR owns a limited number of apartments and houses that are available to students, faculty, and staff. These accommodations are unfurnished, of various sizes and types, and within walking distance of the campus.

The office maintains a list of persons seeking roommates and of apartments, townhouses, duplexes, rooms, and mobile homes available in greater Little Rock, as well as apartment guides, commercial and private listings, brochures, and other information. All rental arrangements on privately owned accommodations are between the renter and tenant.

UALR adheres to all federal and state regulations and guidelines regarding nondiscrimination in housing. Inquiries may be made to the Office of Student Housing at (501) 661-1743.

Information Center

The Information Center is located in the Donaghey Student Center. The Center keeps a list of office locations for faculty, departments, and colleges and maintains a master calendar of campus activities. Students can request meeting rooms on forms available at the center. Facility reservation forms are also available from the University's Central Stores. The Information Center's telephone number is (501) 569-3362.

Intercollegiate Athletics

The UALR athletic program is a member of the National Collegiate Athletic Association Division I and abides by NCAA rules and regulations. Men's and women's teams compete in the Sun Belt Conference. Men's sports include baseball, basketball, cross country, tennis, and water polo. Women's sports include basketball, cross country, soccer, swimming, tennis, track, and volleyball. Any student interested in intercollegiate sports participation is encouraged to try out. Interested students should contact the director of athletics.

International Student Services

This office is responsible for foreign student orientation, assists international students regarding living and studying on an American campus, assists with housing, provides advisory services for matters involving nonacademic concerns, and helps develop programs to bring foreign and U.S. students together. The office works in cooperation with other units on campus that serve international students. For more information, phone 501-569-3582.

Intramural-Recreation Services

Intramural-recreation services are offered by the Donaghey Student Center. Services offered include open recreation, fitness, aquatics, intramural sports, outdoor recreation, instructional sports, and club sports.

Intramural sports programs include flag football, swimming, volleyball, basketball, tennis, golf, table tennis, and more. There are also workshops to assist students in sharpening their skills in some sports and other leisure pursuits. These include land and water aerobic classes, swimming lessons, and special fitness events. Students may also get a fitness assessment and guidance from the fitness and wellness staff. Strength training and conditioning assistance is always available in the weight room. This office also serves the facility and programming needs of recognized student organizations that are sports or recreation related. For more information call (501) 569-8284.

Ottenheimer Library

The library plays a key role in every student's education. Students are urged to visit the library early and often in their academic careers. The library staff provides a number of reader's services, including information about the automated card catalog, special collections, reference materials, and internet resources.

The UALR Ottenheimer Library is an open-stack library, which means patrons may select the book they want instead of waiting for a staff member to retrieve it. However, that puts a special obligation on users to act responsibly by not taking more than they need and by not taking books without checking them out.

Ottenheimer Library meets a variety of student, faculty, and general public needs. Over 2,300 people use the library on an average day.

The library's staff provides circulation services, access to assigned readings in the Baum Reserve Reading Room, interlibrary loans, and reference assistance. Reference librarians also conduct course-specific instruction sessions and assist students accessing information through the library's on-line catalog, in-house databases, and the internet.

The library holds more than 480,000 volumes and subscribes to about 2,000 periodicals, and access to more than 20,000 electronic journals. The library also subscribes to more than 100 electronic databases. In addition, it houses a microform inventory of nearly one million items along with over 10,000 phonograph albums, audio books, and music compact disks. As a selective depository for federal documents, the library receives about 30 percent of the items offered by the Government Printing Office in Washington, D.C. Ottenheimer Library is the state's only depository of European Union documents and also collects Arkansas state documents. Overall, the library contains more than 300,000 government documents. The Archives and Special Collections highlights materials specific to UALR, Arkansas, and the lower Mississippi Valley.

Individual study carrels and self-service photocopiers are available for faculty and student use. Along with microfilm reader-printers, the Instructional Media Services area provides equipment for visually-impaired students. This includes a Braille dictionary, close-captioned television, and a ReadingEdge machine. Instructional Media Services supplies equipment and video programs directly to classroom faculty while serving the larger campus community through teleconference down-links.

Ottenheimer Library subscribes and contributes to the Online Computer Library Center (OCLC) and is a founding member of its regional AMIGOS network. In addition to providing authoritative cataloging data, these services allow UALR faculty and students prompt interlibrary loan access to the millions of items held by other member libraries. The library also participates in direct-to-user reciprocal borrowing with the nine other University of Arkansas System libraries.

The library is open 87 hours a week when classes are in session; the schedule expands during final exam week. The building is open to the public and all collections are available for in-house use.

Library hours in the fall and spring semesters are 7:45 a.m. to 10:45 p.m. Monday through Thursday, 7:45 a.m. to 4:45 p.m. Friday and Saturday, and 1:00 p.m. to 9:45 p.m. Sunday. Summer hours are 7:45 a.m. to 9:15 p.m. Monday through Thursday, 7:45 a.m. to 4:45 p.m. Friday, 9:00 a.m. to 12:45 p.m. Saturday, and 1:00 p.m. to 6:45 p.m. Sunday. Hours vary during holiday and semester breaks.

General information is available by calling (501) 569-3123. The telephone number for reference and documents assistance is (501) 569-8806.

Library Archives and Special Collections

The Ottenheimer Library's Archives and Special Collections Department, located on the second floor of the Library, houses materials on Arkansas and the lower Mississippi Valley. The department contains more than 5.5 million items of archival or manuscript material; 16,250 books; 4,500 pamphlets, posters, and similar materials; 25,000 photographs and postcards; a variety of memorabilia; and the library's non-circulating book collection.

Public Safety

The UALR Department of Public Safety (DPS) is responsible for maintaining an orderly, safe environment for the pursuit of education, and it works in many ways to serve, protect, and assist the students, faculty, staff, and their guests. Police service is provided 24 hours a day, seven days a week, and University police officers are commissioned law enforcement officers with the same authority and arrest powers as city police officers. The public safety telephone number is 569-3408; 569-3400 for emergencies.

Public Safety provides parking and traffic control, individual assistance, crowd control at campus events, crime control, and crime prevention information. Brochures listing traffic, parking, bicycle, pet, and other regulations are available in the public safety office, and these regulations are detailed in the UALR Student Handbook. University police officers are there to help, but students are responsible for knowing and obeying University regulations.

The department should be notified immediately in the event of theft, assault, public drunkenness or other disturbances, or any other criminal, dangerous, or suspicious activity. The Student Patrol, trained students equipped with radios, flashlights, and identifying caps and badges, regularly patrol the campus buildings and parking lots and are available on request as escorts to on-campus destinations.

Emergency telephones, direct lines to the public safety dispatcher, are located around campus and their use is encouraged. These phones are in small, gray metal boxes on poles topped with flashing blue lights. Simply pick up the receiver and wait for the dispatcher to answer.

UALR is in compliance with federal law requiring disclosure of statistics regarding arrests and certain crimes.

Share America Program

The Share America Program at UALR was established in 1994 and provides more than 1700 children in the Little Rock Public Schools with educational enrichment, health care, family assistance, and special gifts. The program, which was the first Share America site in the United States, was established by a grant from Children International, a Kansas City-based child sponsorship organization. Share America serves as a learning laboratory for UALR students who volunteer for one-time service projects or serve as mentors and tutors. Share America welcomes the opportunity to arrange internships and course credit for students involved in special projects.

Speech, Language, and Hearing Clinic

This program provides evaluations and therapy for any student wishing assistance. The UALR Speech, Language, and Hearing Clinic is accredited in speech-language pathology and audiology and is supervised by certified speech-language pathologists and audiologists. Self, faculty, and external referrals may be made. Evaluations and therapy are scheduled at the faculty member's and student's convenience. The clinic is located in the Speech Communication building. Appointments may be scheduled by calling (501) 569-3155.

This clinic has the only diagnostic and rehabilitative training program in audiology in Arkansas. Audiological services include testing of hearing and communication skills, monitoring of hearing problems, hearing aid evaluations, hearing aid checks, training in speech reading, and counseling services for hearing-impaired students who may be experiencing difficulty in school because of hearing problems.

Speech and language services include evaluations and therapy in disorders of articulation, language, stuttering and cluttering, voice, and organic disorders such as laryngectomy, aphasia, cerebral palsy, and cleft palate.

Some services are available at a reduced charge to regularly enrolled students. In addition, referrals are encouraged from community speech- and hearing-impaired children and adults.

Student Activities

The Office of Campus Life provides advisement to all registered student organizations including those funded by the activity fee, coordinates the assignment of student organization office space, and provides student development and leadership enhancement opportunities for UALR students. The office encourages a diversity of activities designed to entertain and educate while providing opportunities for student development through extracurricular experiences.

The Office of Campus Life is responsible for the fair and equitable allocation of the student activity fee, as well as for monitoring the expenditure and usage of the fee. The office develops and maintains the criteria and policies for the student activity fee allocation process.

Student Conduct

Student rights, responsibilities, and behavior as well as other information on matters of conduct and due process are described in the UALR Student Handbook. This publication is given to students at orientation or may be obtained from the Office of Educational and Student Services. Students are considered to be mature individuals who neither lose the rights nor escape the responsibilities of citizenship through enrollment at UALR.

Student Government Association

The UALR Student Government Association (SGA) offers an opportunity for students to play an active role in the University's affairs and provides information on campus policies, events, and organizations, and an avenue for students to make known their feelings about campus policies. SGA officers are selected by campus-wide election and represent the student body in the UALR University Assembly.

The association appoints student members to UALR's administrative and standing committees, provides an appeal system for parking and traffic violation tickets, maintains open lines of communication between University policy makers and students, and provides meeting space for student organizations. For more information or to become involved with the student government, call 569-3210.

Student Organizations

There are more than 100 student organizations and clubs registered at UALR. These groups offer opportunities for leadership and student development experiences; recognize scholarship and leadership achievements at either the undergraduate or graduate level; and provide social experiences and opportunities to promote common interests in such areas as social action, politics, religion, philosophy, ethics, recreation, and hobbies. For a complete list of registered student organizations, or to register a student organization, contact the Office of Campus Life.

Student Publications

UALR recognizes two official student publications on campus. The *Forum* is the student newspaper. It is published weekly during the fall and spring semesters and four times during the summer. The *Equinox* is a student literary magazine, published annually.

Testing Services

The Office of Testing Services and Student Life Research makes available assessment programs to provide information that assists students in educational and career planning, as well as personal decision making.

Information on national programs required for admission to graduate or professional schools is available, including the Graduate Management Admission Test, Graduate Record Examination, Law School Admission Test, Medical College Admission Test, Miller Analogies Test, Praxis series, Optometry Admission Test, and Test of English as a Foreign Language (TOEFL). In addition, the office administers a number of examinations for licensing and certification boards.

Examinations are administered according to national schedules that require candidates to register with the appropriate national testing service according to fixed deadline dates. Information bulletins that include test dates and applications are available at the Office of Testing Services and Student Life Research, the Graduate School, and the Information Center. For more information call 569-3198.

Computerized administrations of standardized tests are given at Pro-Metric Center in Little Rock, (501)663-8341.

University Program Council

The University Program Council (UPC) offers students an opportunity to choose, organize, and produce entertainment events and other activities for the campus community. UPC presents concerts, comedians, lectures, movies, and other events several times a month, all planned and produced by student members. Because UPC cosponsors events with other UALR organizations, members have the opportunity to interact with many diverse campus groups.

In addition to activity programming experience, UPC members receive leadership development and networking opportunities at regional conferences. For more information, see <http://www.ualr.edu/upc>.

University Writing Center

The University Writing Center offers writing assistance to any student at any level. Word processing is also available.

Located in Student Union B 116, the University Writing Center is open six days a week. Hours change each semester. For more information, come by or call (501) 569-8343. You may also visit the Center for help with writing at the University Writing Center Online: <http://www.ualr.edu/owl/>.

Vehicle Registration and Parking

Every student who owns or operates a motorized vehicle on the campus is required to register that vehicle and display a parking permit as instructed. A student may register one vehicle for open parking free of charge. Contact the Department of Public Safety for more information on registering vehicles.



Research, Learning, and Service

American Native Press Archives

The American Native Press Archives 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 archives supports research activities, publishes its newsletter American Native Press, and maintains a web site found at <http://www.anpa.ualr.edu/>, 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 Archives, Ottenheimer Library; materials are available during regular library hours.

Arkansas Centre for Earthquake for Education and Technology Transfer (ACEETT)

The Arkansas Department of Emergency Management (ADEM) and the University of Arkansas at Little Rock (UALR) have established a collaborative program to assist the state of Arkansas in Hazard Mitigation Planning and Public Education. Through this program, the Center (<http://quake.ualr.edu/public/>) provides public education, hazard mitigation, and scientific research to make our communities more disaster resistant. Currently, ACEETT is collaborating with other regional centers (e.g., St. Louis University, Memphis State University, USGS, and CUSEC) and it is committed to actively participate in FEMA's Project Impact.

Arkansas International Center

The center (<http://www.ualr.edu/aic/>) conducts international professional exchange programs for adults in the fields of education, business, government, and nonprofit organizations. The center's mission is to:

- Collaborate in making Arkansas internationally aware and involved through education, economic development, and contacts with present and potential international leaders.
- Increase institutional and individual capabilities for helping to plan, execute, and manage both in the US and foreign countries.

Arkansas Small Business Development Center

The Arkansas Small Business Development Center (ASBDC) 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 ASBDC is administered through a cooperative agreement between UALR and the U.S. Small Business Administration.

The ASBDC (<http://asbdc.ualr.edu/>) 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 Administration. 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 (<http://asgc.ualr.edu/>) which is to promote 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 Studies

The Center for Arkansas Studies promotes the study and teaching of Arkansas history and culture. Its activities include publication of materials about Arkansas, recognition of Arkansas artists and authors, and development of a regional studies program at UALR. To stimulate scholarship on Arkansas, the center offers the Virginia C. Ledbetter Prize, a \$1,000 award given every two years to an outstanding nonfiction book on an Arkansas topic.

Center for Applied Studies in Education (CASE)

The center's (<http://www.ualr.edu/crtldept/>) mission is to improve the quality of education and human services in Arkansas and globally through a number of inter-related activities consisting of:

- 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 only one of twenty-five such centers nationwide. The Center for Gifted Education at the University of Arkansas at Little Rock provides programs and services to talented students and their families, teachers, and administrators. Established in 2001, it is only one of twenty-five such centers nationwide. The goals of the Center (<http://giftedctr.ualr.edu/>) are:

- 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 their 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 Administration at UALR. Its mission is to support statewide economic development activities through research, information, service, training, and education. IEA serves businesses, all levels of government, labor organizations, educational institutions, nonprofit agencies, and public, acting as the State's official representative for several programs. Contact information is provided on the IEA web site at <http://www.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 web site with comprehensive economic development information for Arkansas cities. It prepares a number of publications on a regular basis.
- The 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 Professional Studies combines all elements of the University mission under one umbrella. 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 Arkansas Public Administration Consortium (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 for all areas of state and local government as well as nonprofit organizations. More information is available at IOG's web site, found at: <http://www.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 web site at <https://rhetoricandwriting.ualr.edu/lrwp> for more information.

MidSOUTH Center for Leadership and Training

The center (<http://www.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 select multi-disciplinary students who agree to work for the Arkansas Division of Children and Family Services (DCFS).

Nanotechnology Center

The Nanotechnology Center (<http://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.

STRIVE Program

The Arkansas STRIVE program (<http://www.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 purpose of the program is to provide teachers with hands-on, real-world research experiences that expand their scientific and technological knowledge. The program works with the teachers to develop inquiry-based and problem-based 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.

Applied Communication Studies

Speech Communications
237, 569-3158

Master of Arts

The Master of Arts in Applied Communication Studies provides understanding and development of communicative behaviors necessary to function effectively in all areas of today's business and professional world. The primary objective of the program is to guide students in the application of communication theory to a variety of interpersonal, institutional, public, and organizational contexts. The curriculum provides 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. For more information, please visit the web site at <http://www.ualr.edu/spchcomm/gradprog.html>.

Tracks

The program is divided into two tracks intended to provide options for students with differing goals. A combination of evening and weekend courses will enhance your knowledge and skills related to organizational and interpersonal communication. Each track maintains an applied focus, and students are expected to complete their course work, comprehensive exams, and final project in two years. Opportunities for students interested in preparation for a doctorate after completing their master's are available as well.

The *Applied 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 course 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.

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 2.7 (4.0 scale) or 3.0 in the last 60 hours
- Score of at least 1,000 on the verbal and quantitative sections of the Graduate Record Examination or 400 on the Miller Analogies Test
- Two letters of recommendation (send to program coordinator)
- 18 speech communication hours or Speech 7390 (a preparatory three-hour summer course)
- 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, 569-3158 if you want to be considered for early or late admission.

Program Requirements

Applied Communication Track

The program is offered in the evening, and course work can be completed in two calendar years. Applied 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 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).

Applied Track: Example Two-Year Plan

Fall - First Year

- SPCH 7301 Human Communication Theory
- SPCH 7321 Organizational Communication Theory

Spring - First Year

- SPCH 7322 Organizational Communication Culture Analysis
- SPCH 7350 Crisis Communication (weekend course)

Summer - First Year

- 3 Hour Elective: e.g., SPCH 5311, 5312, 5313, 5324, 5350, 7311, 7312, 7352, or 7324

Fall - Second Year

- SPCH 7330 Communicating Change and Information Diffusion
- SPCH 7302 Interpersonal Communication: Theory and Context

Spring - Second Year

- SPCH 8310 Seminar in Applied Communication Studies
- SPCH 7310 Topics in Interpersonal Communication (weekend course)

Summer - Second Year

- 3 Hour Elective: e.g., SPCH 5311, 5312, 5313, 5324, 5350, 7311, 7312, 7352 or 7324

Total credit hours for MA in IOC: 33

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 will be offered jointly by UALR and UAMS. The health communications track requires students to complete 15 credit hours of core courses and 15 credit hours of electives plus a 3-hour master's project.

Core Courses

- SPCH 7301 Communication Theory
- SPCH 7321 Organizational Communication
- SPCH 7302 Health Communications/Interpersonal Communication
- SPCH 7311 Communication Assessment
- SPCH 7350 Seminar in Effective Crisis Communication

Elective Courses

- PBHL 5653 Theories of Health Behavior and Health Education
- PBHL 5783 Health Communication
- PBHL 7023 Health Administration
- Health/PR Campaigns
- Health Communication and Technology

Example Two-Year Plan

Fall - First Year

- SPCH 7301 Human Communication Theory
- SPCH 7321 Organizational Communication Theory

Spring - First Year

- SPCH 7322 Communication Cultures and Context
- SPCH 7302 Health Communications/Interpersonal Communication or SPCH 5350 Effective Crises Communication

Summer or Spring - First Year

- SPCH 5350 Effective Crisis Communication

Fall - Second Year

- Health/PR Campaigns
- PBHL 5653 Theories of Health Behavior and Health Education

Spring - Second Year

- PBHL 5783 Health Communication
- PBHL 7023 Health Administration

Summer - Second Year

- Health Communication and Technology
- A final project is also required. The term during which this requirement is fulfilled should be determined by the student and his/her advisor.

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.

Graduation Requirements (for both tracks)

- Cumulative GPA of at least 3.0 on an approved program of study
- Successful completion and defense of master's paper, internship paper, or thesis
- Successful completion of the comprehensive exam

Courses in Interpersonal and Organizational Communication

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 7300 Interpersonal Communication Concepts

Prerequisites: graduate standing, consent of instructor. (For non-IOC graduate students.) Concepts of human interaction as a 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, nonverbally; 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.

Applied Science

Applied Sciences (ETAS)
300, 569-8000

Master of Science and Doctor of Philosophy

The applied science graduate programs are housed in the Department of Applied Science, an interdisciplinary, graduate-only department. The programs offer applied research in a broad set of emphasis areas, including applied chemistry, robotics and mechatronics, biomedical engineering, applied biosciences, geophysics, applied computing, environmental research, signal processing, information quality, and materials and powder science.

The applied science department offers two degrees, the Doctor of Philosophy and the Master of Science. Each degree has several emphases. Faculty housed in other departments in both the College of Science and Mathematics (CSAM) and the Donaghey College of Engineering and Information Technology (EIT) participate in the emphasis tracts. For more information and access to the online application process, visit the Department of Applied Science web site at <http://www.technologize.ualr.edu>.

Master of 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. The student may either pursue a generic degree in applied science or, with sufficient specialized course work, may earn a master's degree with one of two emphases, applied physics or engineering science.

Program Requirements

Course Work

The Master of Science degree requires 30 credit hours beyond the baccalaureate degree. The student's plan of study must be developed in conjunction with the thesis advisor and advisory committee. Twelve credit hours of master's thesis (ASCI 8000) are required. A minimum of 18 credit hours in 5000 or 7000 level courses within CSAM or EIT must be taken.

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 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.

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

To earn an emphasis in engineering science, students must take at least nine credit hours from recognized engineering courses in either the Applied Science Department or the Systems Engineering 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.

Thesis and Advisory Committee

The students' advisory committee will be composed of four members, including the students' thesis advisor.

The thesis subject is selected by the student and the advisory committee at least one year prior to the oral defense. The written thesis format must follow the *UALR Graduate School Dissertation and Thesis Guide* 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.

Graduation Requirements

- Successful completion of an approved program of study with a minimum GPA of 3.0
- Successful completion of proposal and oral defense
- Successful completion of dissertation and oral defense
- Successful completion of the writing requirements

Doctor of Philosophy

Faculty participating in the doctoral program are drawn from the Departments of Applied Science, Biology, Chemistry, Computer Science, Physics and Astronomy, Engineering Technology, Systems Engineering, Information Science, and Mathematics and Statistics.

The Doctor of Philosophy is the highest academic degree offered at UALR. It is awarded upon completion of a program of advanced study and completion of an original dissertation in applied research or design. Work done that is not under the supervision of an applied science doctoral faculty member will not be accepted in lieu of the dissertation requirement. 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 PhD 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 Departments of Chemistry and Applied Science have research-quality instrumentation and computer facilities, give individual attention to each student, and offer high-quality instruction.

Engineering Science and Systems

Engineering science is an emphasis area of applied science which emphasizes basic research, design, and development in traditional areas of mechanical, electrical, biomedical, or systems engineering. Research topics in subjects such as mechatronics, robotics, signal processing, communication systems, instrumental science, powder/particle technology, biomedical instrumentation, and combustion are available to graduate students.

Applied Physics

The applied physics doctoral emphasis is designed to extend the undergraduate physics theoretical background into areas of applied research such as instrumentation, computational physics, image processing, geophysics, nuclear physics, spectroscopy, and optics.

Applied Computing

The emphasis in applied computing focuses on hardware applications, software applications, or data applications. The student's research furthers the application of computing to the sciences, engineering, or social sciences.

Computational Science

The computational science emphasis applies mathematical modeling, simulation and visualization, and high performance computing to a specific scientific discipline.

Information Quality

The Information Quality emphasis is designed to meet the growing demands from academia, industry, and government for qualified professionals with PhD degrees that encompass the theory, principles, and models essential to the discipline of information quality, or "data quality," which is the degree of fitness for use (utility of information) in a given application. Some of the topics in the Information Quality emphasis are information integration; data architecture; entity and identity resolution; identity management; enterprise architecture; data protection and privacy; and data governance, risk, and compliance.

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 web site at <http://technologize.ualr.edu/appliedscience/>.

A student supported by a graduate assistantship shall be registered as a full-time student.

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 550 on the paper based Test of English as a Foreign Language (TOEFL) 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).

Admission Requirements

Applicants must possess a baccalaureate degree in an appropriate scientific discipline such as engineering, chemistry, physics, biology, mathematics, or computer science. They must have a GPA of 3.3 in the last 60 undergraduate credit hours. Applicants whose GPA in the last 60 credit hours is less than 3.5 must have a minimum combined quantitative and verbal score on the GRE of 1000 (out of 1600) and a minimum score on the writing assessment of 4.5. Applicants must possess the prerequisites for their intended areas of study. Note: Applicants with a 3.5 or greater GPA on their last 60 credit hours are not 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 CSAM or EIT graduate credits in the first year of study to be fully admitted.

Entrance Exams

In the week prior to the start of classes, incoming students will undergo a series of entrance exams or placement interviews, in which the student must demonstrate proficiency in the candidacy subjects. 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 undergraduate courses, which will not count toward his/her degree program, to remedy any deficiencies. Courses numbered at 4000 level or lower are not covered under the assistantship tuition waiver.

Writing Requirement

An English Writing Proficiency Exam (WPE) will be offered each Fall term by the Department of Applied Science. 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 Fall term. The student must take the EWPL each Fall term until they pass.

Seminar Requirement

All PhD students are required to register for the Applied Science Seminar (ASCI 7190) each semester of residency. Some emphasis areas have an additional seminar requirement. Individual requirements are described in each emphasis area.

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. A minimum of eighteen (18) credit hours of course-work is required from 5000 and 7000 level courses in CSAM and EIT. The student's plan of study must be developed in conjunction with his/her doctoral advisor and advisory committee. 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 Doctoral Affairs Committee, 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 Doctoral Affairs Committee.

Transfer of Credit

Transferability of credit is determined by the student's advisory committee based upon the applicability of the courses 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

Applied Chemistry

- Analytical Chemistry
- Inorganic Chemistry
- Organic Chemistry
- Physical Chemistry

Applied Physics

- Mechanics
- Electricity and Magnetism
- Quantum Mechanics
- Statistical Thermodynamics
- Elastic Wave Theory
- Potential Theory

Applied Biosciences

- Physiology
- Genetics
- Biochemistry
- Computational Biology
- Ecology and Evolution

Engineering Science and Systems

- Measurement and Control Systems
- Fluid and Solid Mechanics
- Analog/Digital Electronics and Signal Processing
- Mechatronics and Robotics
- Materials Engineering
- Modeling and Simulation
- Telecommunication Systems
- Discipline Specific Applications

Applied Computing

- Hardware
- Software
- Information

- Methods

Computational Science

- High Performance Computing
- Applied Mathematics
- Modeling and Visualization
- Discipline Specific Applications

Information Quality

- Total Quality Management and Statistical Quality Control
- Information Quality Theory
- Information Systems Analysis
- Database Systems

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. The Doctoral Affairs Committee (DAC) must approve the committee constituency.

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.

Changes may not be made to the student's doctoral advisory committee within six months of dissertation defense. In event of exigent circumstances, an appeal may be made to the DAC to shorten the time between a change in the student's doctoral advisory committee and the dissertation defense.

Dissertation Proposal

At least two years prior to the dissertation defense, the candidate must present a proposal for his/her dissertation work to his/her advisory committee.

Dissertation Defense

Students will orally defend their research before their advisory committee. The defense will be open to the public and must be announced at least two weeks in advance.

Graduation 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 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 outside the Department of Applied Science are found in 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 in 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 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, processes and threads, inter-process communication, event-driven and signal handling, pipes, sockets, client/sever. It also covers graphics and user interface design. Students who have taken ASCI 4308 for credit cannot take ASCI 5308 for credit.

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 5320 Introductory Continuum Mechanics

Prerequisite: MATH 2453 and MATH 3322 or their equivalent, PHYS 2321 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 electric fields. Using a first principles approach, the fundamental conservation laws of mass, charge, momentum and energy will be covered. Applications to deformation in solids, heat transfer, fluid flow and electric fields will be addressed.

ASCI 5325 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 strain, 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 per week.

ASCI 5330 Acoustics I

Prerequisite: MATH 2453 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 cepstral analysis. Applications to noise analysis and control, and machinery diagnosis through sound and vibration measurements. Three hours lecture. Three credit hours.

ASCI 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, are covered. Use of electric motors and pneumatics in mechanical systems 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.

ASCI 5340 Mechatronics II

Prerequisite: ASCI 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 (Encoders, 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 hours credit.

ASCI 5350 Analog and Digital Electronics Design

Prerequisite: SYEN 2315 or equivalent. Operation of analog, digital integrated circuits. Includes amplifiers, A/D and D/A circuits, active filters, special function circuits as used in computers and instrumentation for measurement and control. 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 system (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 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 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 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. Su

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 7298 Recombinant DNA Methods and Applications

Prerequisite: Graduate standing in Applied Science or consent of instructor. A laboratory course which teaches the principles, techniques, and applications of recombinant DNA technology, gene cloning, restriction enzyme methods and nucleic acid sequencing. Discussions emphasize both the basic molecular biology of genes and how the techniques can be applied to understand gene structure and regulation, elucidate gene function, prepare vaccines, etc. Six hours of laboratory per week.

ASCI 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 kernel for their own embedded application. They will learn techniques necessary for developing real-time Linux device drivers, 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.

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 7312 Transducers and Real Time Control

Prerequisites: ASCI 4335 or equivalent, ASCI 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.

ASCI 7315 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, 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.

ASCI 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.

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 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. Foca 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 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 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.

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 MA in Art web site at <http://www.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.

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. Applications received after these deadlines will be considered only for provisional enrollment.

Admission requires:

- Baccalaureate degree from an accredited institution with a cumulative GPA of 2.7 (4.0 scale) or 3.0 in the last 60 hours
- Two letters of recommendation (optional for students who have taken art course work 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 applicant's students' work. The student 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 better earned in the past five years may be transferred from another accredited institution.

Special Students

Students admitted to the Graduate School 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 better) toward program requirements.

Program Requirements

All students must maintain at least a 3.0 GPA. Only 12 5000-level hours can 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.

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 undergraduate intermediate level II courses or departmental examination. 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 7399 Exhibition and Catalogue Project. 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 Exhibitions and Catalogue Project.

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 exhibition and catalogue project must be proposed to and accepted by the student's advisory committee before Advancement to Candidacy is granted. The exhibition must be organized and scheduled according to departmental policies, and the catalogue must document the exhibition following 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
- 7399 Exhibition and Catalogue Project

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 or mounted and catalogued exhibition

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, 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, 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.

ARHA5302 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, 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 to c. 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-, 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"x10" 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 Exhibition and Catalogue Project

Prerequisite: 27 graduate hours. Prepare, complete final exhibition, catalogue. May be taken credit/no credit but only once for grade. Offered in fall and spring.

Doctor of Audiology

(With the University of Arkansas for Medical Sciences)

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 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. Two program tracks are offered to students, a post-bachelor's degree track and a post-master's degree track.

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 and private clinics; private practice; community speech, language, and hearing centers; college and university programs; rehabilitation centers; residential institutions; school systems; and industrial settings. Please visit the program's web site at <http://www.ualr.edu/audiology/> for more information.

Accreditation, Licensure And Certification

The Au.D. degree program is accredited by the American Speech-Language-Hearing Association (ASHA). 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 ASHA and/or for certification through 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.

Graduate Assistantships

In addition to the financial aid opportunities described in the Financial Aid Information section of the UAMS College of Health Related Professions Catalog, the department has a limited number of program-specific graduate assistantship opportunities; these awards typically do not include tuition remission. Contact the department at (501) 569-3155 for further information regarding graduate assistantships which may be available to qualified, full-time, audiology graduate students. For other forms of financial aid students should contact the UAMS Financial Aid Office (501-686-5451).

Admission Requirements

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. Undergraduate course work in mathematics (college algebra or higher) and in biologic, physical and behavioral sciences is required. A course in statistics is strongly encouraged but is not required. Although there are no prerequisites in audiology or speech pathology course work, the program does require that all students have one course in phonetics and one course in language acquisition. If these are not completed prior to admission they must be completed during the course of study for the Au.D.

Application Procedures And Deadlines

Application for the Au.D. program is made through the College of Health Related Professions, University of Arkansas for Medical Sciences, 4301 West Markham Street, #619, Little Rock, Arkansas, 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 CHRP-UAMS, 4301 West Markham Street, #619, Little Rock, Arkansas,

72205-7199. The letter of application and three letters of recommendation should be sent to AUSP-UALR, 2801 South University Avenue, Little Rock, Arkansas, 72204.

Post Baccalaureate

Completed application materials must be received by February 1 of each year for consideration for admission the following fall semester. Earlier submission of applications is strongly recommended. Students are admitted for the fall semester only. Application procedures are delineated below:

1. The CHRP Application for Admission is required. A copy of the application can be found at <http://www.uams.edu/chrp/apply/>.
 - a. A non-refundable application fee of \$20.00 is required and must accompany the CHRP application.
 - b. Contact the department office or the CHRP Office of Student Affairs for more information.
2. Transcripts provided to CHRP must be official; i.e., sent directly to CHRP from the issuing institution(s). A transcript "issued to the student" or received from the student or anyone else is not acceptable.
 - a. Arrange for each college or university attended to forward an official transcript to the CHRP Admissions Office.
 - b. 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.
3. Arrange for an official copy of the General Test of the Graduate Record Examination (GRE) to be sent to the UAMS College of Health Related Professions: Institution Code 6146.
4. Prepare an application letter to the Audiology Admissions Committee (business format, 12-pt font and < 2 pages) addressing:
 - a. An explanation of your interest in audiology.
 - b. Your long-term and short-term goals.
 - c. Other information you deem relevant to the committee's decision-making process.
5. Three letters of recommendation on the official recommendation form are required for consideration for admission (<http://www.uams.edu/chrp/audiospeech/>).
 - a. Recommendations should be from mentors/professors with whom you have worked and who are familiar with your ability and academic performance.
 - b. Reference letters must be sent by the recommending individual directly to AUSP-UALR, 2801 S. University Avenue, Little Rock, Arkansas, 72204.
6. TOEFL scores as applicable. See International Applicants on page 11.

Post-Master's

Application procedures for the post-master's track follow steps 1 - 6 above. In addition, the date of the GRE score must be within the past five (5) years, proof of current state licensure in audiology and/or national certification in audiology (CCC-A or ABA) must be provided. 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 semester credits of graduate level courses specified by the department). Contact the department for more specific requirements.

Professional Curriculum

The program requires a minimum of 118 graduate semester credits (SC). Students should expect to travel away from central Arkansas for some of their practicum experiences. A degree is awarded upon successful

completion of all academic and practicum requirements for the College of Health Related 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) 569-3155.

Post-Baccalaureate Requirements

The post-baccalaureate Au.D. degree is designed to be completed in four 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. The following 118 graduate semester credits are offered in the graduate Audiology program. All courses listed below or their equivalency must be successfully completed to obtain the Doctor of Audiology degree.

Fall (13 Semester Credit Hours)

AUSP 7380 Basic Diagnostic Audiology
AUSP 7331 Anatomy and Physiology of the Auditory and Vestibular Systems
AUSP 7332 Acoustics and Psychoacoustics
AUSP 7332 Instrumentation in Audiology and Speech Pathology
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Spring (13 Semester Credit Hours)

AUSP 7087 Topics in Audiology (Advanced Diagnostics)
AUSP 7382 Electrophysiology Assessment of the Auditory System
AUSP 7226 Outcomes Research and Evidence-Based Practice
AUSP 7384 Amplification
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Summer (7 Semester Credit Hours)

AUSP 7224 Genetics of Hearing Loss
AUSP 7386 Audiologic Rehabilitation: Adult
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Fall (14 Semester Credit Hours)

AUSP 7334 Pediatric Audiology
AUSP 7223 Advanced Electrophysiology
AUSP 7383 Medical Audiology
AUSP 7351 Amplification II
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Spring (15 Semester Credit Hours)

AUSP 7385 Pediatric Amplification and Intervention
AUSP 7360 Research Methods in Communication Disorders
AUSP 7365 Counseling in Communication Disorders
AUSP 7350 Evaluation and Treatment of the Balance System
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Summer (7 Semester Credit Hours)

AUSP 7228 Professional Issues in Audiology and Speech Pathology
AUSP 7094 Independent (Directed) Research
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Fall (13 Semester Credit Hours)

AUSP 7342 Multicultural Issues in Communicative Disorders
AUSP 7370 Educational Audiology
AUSP 5172 Implant Device Technology
AUSP 7094 Independent (Directed) Research
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Spring (14 Semester Credit Hours)

AUSP 7333 Auditory Processing
AUSP 7227 Hearing Conservation
AUSP 7229 Audiology Practice Management
AUSP 7000 Independent Study or Elective*
AUSP 7094 Independent (Directed) Research
AUSP 7091 Audiology Practicum
AUSP 7181 Clinical Laboratory

Summer (8 Semester Credit Hours)

AUSP 7000 Independent Study or Elective*
AUSP 7094 Independent (Directed) Research (if not complete)**
AUSP 7091 Clinical Externship (Practicum)
AUSP 7181 Clinical Laboratory

Fall (7 Semester Credit Hours)

AUSP 7094 Independent (Directed) Research (if not complete)**
AUSP 7091 Clinical Externship (Practicum)
AUSP 7181 Clinical Laboratory

Spring (7 Semester Credit Hours)

AUSP 7094 Independent (Directed) Research (if not complete)**
AUSP 7091 Clinical Externship
AUSP 7181 Clinical Laboratory

Total Semester Credit Hours 118

*Electives

AUSP 7320 Auditory Based Intervention
AUSP 7367 Infant-Toddler Communication: Development-Assessment
AUSP 7282 Learning Disabilities
AUSP 5352 Sociolinguistics
AUSP 7087 Topics in Audiology

**Research 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, 13 semester credit hours of practicum, and 16 semester credit hours of clinical externship (taken under 540V Practicum) during the final academic year. Practical 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

AUSP 7016 Clinical Externship

Full-time, applied, supervised practicum experience for graduate students in residence, encompassing the broad scope of diagnostic and rehabilitative audiology clinical practice across the life span.

AUSP 7112 Directed Research

Research or individual investigation for graduate students under the direction of a research mentor. Repeated registration is permitted.

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.

AUSP 7187, 7287, 7387 Topics in Audiology

Prerequisite: consent of instructor. Emphasis on topics related to clinical or rehabilitative audiology. May be repeated for up to six hours. *UAMS course ASP 520V.*

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. *UAMS course ASP 540V.*

AUSP 7194-7694 Independent Research

Research or individual investigation. May be applied toward degree requirements if approved and a letter grade is given. Repeated registration is permitted. *UAMS course ASP 516V.*

AUSP 7212 Directed Research

Research or individual investigation for graduate students under the direction of a research mentor. Repeated registration is permitted.

AUSP 7222 Speech Perception

Prerequisite: Graduate student standing. 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. *UAMS course ASP 5132.*

AUSP 7223 Advanced Electrophysiology

Prerequisite: AUSP 5083/AUSP 7382 or permission of the instructor. Advanced principles and techniques in the use of evoked potentials to assess auditory function. Lecture and laboratory. *UAMS course ASP 5142.*

AUSP 7224 Genetics of Hearing Loss

Prerequisites: AUSP 7383 Medical Audiology. 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. *UAMS course ASP 5162.*

AUSP 7227 Hearing Conservation

Prerequisites: AUSP 7221 Instrumentation; AUSP 7380 Basic Diagnostic Audiology. Noise measurement, OSHA requirements, occupational noise management, recreational audiology, and designing and implementing hearing conservation programs for adults and children. Two credit hours. *UAMS course ASP 5212.*

AUSP 7228 Professional Issues in Audiology and 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. *UAMS course ASP 5222.*

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. *UAMS course ASP 5232.*

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.

AUSP 7263 Sociolinguistics

The linguistic structure of language, nature, and forms of symbolic behavior. Human uses of symbols from various groups and socio-economic levels, particularly in communication. Prerequisite: Courses in phonetics and normal language acquisition. *UAMS course ASP 5142.*

AUSP 7282 Learning Disorders

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. *UAMS course ASP 5173.*

AUSP 7312 Directed Research

Research or individual investigation for graduate students under the direction of a research mentor. Repeated registration is permitted.

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. *UAMS course ASP 5163.*

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. *UAMS course ASP 5112.*

AUSP 7325 Implant Device Technologies

Prerequisites: AUSP 7384 Amplification I. Overview of the history of the development of implant technologies for treatment of hearing loss including but not limited to cochlear, middle ear, bone anchored implant technologies. Counseling, pre- and post-operative audiological evaluation procedures, surgery, speech processing strategies, patient performance and current research topics are included.

AUSP 7326 Outcomes Research and Evidence Based Practice

Prerequisite: AUSP 7360. Research Methods in Communication Disorders; BIOM 5013 Biometry I (UAMS) 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. *UAMS course ASP 5182.*

AUSP 7331 Anatomy & Physiology of the Auditory and Vestibular Systems

Detailed information of the anatomy, physiology, electrophysiology, and neurophysiology of the peripheral auditory and vestibular systems. Three credit hours. *UAMS course ASP 5043.*

AUSP 7332 Acoustics and Psychoacoustics

Designed to provide basic information regarding the physics of sound, the measurement of sound and an introduction to the psychoacoustic basis of hearing and its clinical applications. *UAMS course ASP 5053.*

AUSP 7333 Auditory Processing

Prerequisites: AUSP 7380 Basic Diagnostic Audiology. Emphasize a theoretical overview, differential assessment, and treatment of adults and children with auditory processing disorders. Intended to blend theoretical knowledge with practical clinical methods and techniques. Three credit hours. *UAMS course ASP 5063.*

AUSP 7334 Pediatric Audiology

Prerequisite: AUSP 7380 Basic Diagnostic Audiology. Provides students with an understanding of normal auditory development and theoretical, clinical, and practical issues involved in screening, assessment, and management of children with hearing loss. Three credit hours. *UAMS course ASP 5153.*

AUSP 7335 Advanced Psychoacoustics

Prerequisite: AUSP 7332 Acoustics and Psychoacoustics. Designed to provide advanced information regarding how listeners with normal hearing and those with hearing loss process sound. Topics to be covered include: loudness, frequency selectivity, temporal processing, pitch perception, space perception, object/pattern perception, speech perception, experimental design, and signal detection theory. Three credit hours. *UAMS course ASP 5123.*

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.

AUSP 7342 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 ASP 5293.*

AUSP 7350 Evaluation & Treatment of the Balance System

Prerequisite: AUSP 7383 Medical Audiology. 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. *UAMS course ASP 5263.*

AUSP 7351 Amplification II

Prerequisite: AUSP 7384. 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. *UAMS course ASP 5253.*

AUSP 7360 Research Methods in Communicative Disorders

Research methodologies in audiology, speech-language pathology; includes prospectus development, funding sources, data collection, 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 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. *UAMS course ASP 5173.*

AUSP 7367 Infant-Toddler Communication

Investigates 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. *UAMS course ASP 5133.*

AUSP 7370 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 law associated with children with special needs. *UAMS course ASP 5033.*

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.

AUSP 7380 Basic Diagnostic Audiology

Prerequisite: Undergraduate introductory audiology course. 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. *UAMS course ASP 5023.*

AUSP 7381 Advanced Diagnostic Audiology

Prerequisites: ASP 5023/AUSP 7380 Basic Diagnostic Audiology. Principles of and techniques for advanced audiometric evaluation, including speech in noise testing, 'special tests' (e.g., tinnitus matching, fistula, Eustachian tube), pseudohypacusis and otoacoustic emissions are covered. Report writing and making appropriate recommendations will also be discussed.

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. *UAMS course ASP 5083.*

AUSP 7383 Medical Audiology

Prerequisite or co-requisite: AUSP 7331 Anatomy and Physiology of the Auditory and Vestibular Systems and AUSP 7380, Basic Diagnostic 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 disorders will also be discussed. *UAMS course ASP 5103.*

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. *UAMS course ASP 5223.*

AUSP 7385 Pediatric Amplification and Intervention

Prerequisites: AUSP 7380, Basic Diagnostic Audiology. Advanced diagnostic strategies for children with hearing loss, amplification selection, fitting, verification, and validation considerations specific to the pediatric population, and family centered care/management guided by desired communication and educational outcomes. Family advocacy for legislated rights and family support are also included. *UAMS course ASP 5233.*

AUSP 7386 Aural Rehabilitation: Adults

Prerequisites: AUSP 7380, Basic Diagnostic Audiology. Principles of audiologic rehabilitation for adults, including evaluation, counseling, use of amplification and other assistive devices, and communication strategies. Various models of audiologic rehabilitation will be presented. *UAMS course ASP 5243.*

AUSP 8109 Grant Writing Internship

This course involves the development, completion, and submission of a grant proposal to a private or public funding agency.

AUSP 8110 Teaching Internship

This course provides doctoral students with supervised experience in academic instruction.

AUSP 8111 Supervision Internship

This course provides doctoral students with supervised experience in clinical supervision/instruction.

AUSP 8121, 8221 Supervision Internship

This course provides doctoral students with supervised experience in clinical supervision/instruction. *UAMS course ASP 611V.*

AUSP 8123, 8223 Teaching Internship

This course provides doctoral students with supervised experience in academic instruction. *UAMS course ASP 611V.*

AUSP 8131, 8631 Research Project

This course covers skills necessary to complete a research project consisting of a research question, review of the literature, methodology, IRB approval, data collection, analysis of data, and written report. *UAMS course ASP 611V.*

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.

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.

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.

AUSP 8300 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.

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.

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.

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 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.

Master of Science and Doctor of Philosophy

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 web site at <http://bioinformatics.ualr.edu/grad>.

Admission Requirements for both MS and PhD

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 an overall undergraduate GPA of a 3.0 or a 3.3 or better on their last 60 credit hours as an undergraduate. GRE scores, a letter of intent, 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.

Master of Science

Requirements for the Master of Science Degree

The MS 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 and a minimum of seven total courses (a minimum of three credits each) in these three 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 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.

MS 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

Requirements for the Doctor of Philosophy Degree

The PhD requires completion of the MS degree in bioinformatics with a grade of A on the student's Bioinformatics Master's Capstone Project. A minimum of four additional semesters of BINF 7193 Bioinformatics Seminar (required for every semester enrolled) and a minimum of 32 credit hours of research complete the PhD program culminating in the successful defense of the student's dissertation research.

Within the first six months of entering the PhD program, students must have an approved advisory committee and defend their dissertation proposals as part of their Candidacy Examination. During the first eight months, post-MS, PhD students must complete and successfully present a grant proposal related to their research topics.

Doctoral 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;
- Successful completion of a grant proposal and its oral presentation;
- Successful completion of the dissertation and oral defense;
- Successful completion of the writing requirement.

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 and collectively must represent a minimum of three of the four cores of the graduate program. The fifth member must be an external member who is not a member of the UALR or UAMS faculty. The Bioinformatics Program Director must approve the Committee constituency.

The dissertation subject is selected by the student and Doctoral Advisory Committee approximately 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 Guide* found on the Graduate School web site.

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 Student Evaluation Committee 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.

Doctoral Grant Proposal

Soon after passing the oral candidacy examination and within eight months of entering the PhD Program, students are required to prepare and submit written grant requests, where they are the Principal Investigators, to fund their dissertation research. The funding source may be internal (e.g., the UAMS CAGSRF grant program) or external (e.g., a fellowship request or an NIH or NSF doctoral dissertation research support grant). This proposal will be evaluated by the student's Doctoral Advisory Committee, the Student Evaluation Committee, and the Program Director during a formal, oral presentation.

Dissertation Defense

Students will orally defend their research before their Doctoral Advisory Committee. 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.

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. A maximum of ten (10) credits may be transferred into the program. 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 <http://bioinformatics.ualr.edu/gradadmit>.

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 a non-credit 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

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 79 on the Internet-based Test of English as a Foreign Language (TOEFL) or 213 on the computer-based version. Exceptions may be made for students who petition the Program Director and who received a degree from a university in other English-speaking countries.

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 bioinformaticists, drawing upon bioinformatics-related seminars/colloquia available at UALR and UAMS. 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 PhD dissertation.

Master of Science

The Department of Biology offers a Master of Science degree with two possible tracks: the thesis option and the non-thesis/course work option. 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 which are desired by potential and/or current employers, specific knowledge and techniques relevant to specialized fields within biology, and the opportunity to work independently on a thesis (or project) 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 web site at <http://www.ualr.edu/biology/msbiol.html>.

Admissions Requirements

Students applying to the Master of Science program in biology should meet all the requirements for admission to the UALR Graduate School. In addition, the following requirements should be met:

- 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 950 on the verbal and quantitative sections of the GRE general section. GRE tests must have been taken within the last five years.
- International students must present TOEFL scores. Minimum scores for acceptance are 525 on the paper-based test or 195 on the computer-based version.

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.

Application Procedures

Applications for Fall semester entry are due by April 15 and Spring semester entry applications are due by November 1.

Application materials include:

- Completed UALR Graduate School application form;
- Formal letter of application written by the applicant, including a personal statement of career interests and objectives;
- Official college transcripts;
- GRE scores; and
- Three letters of recommendation from persons well acquainted with the applicant. Letters from former faculty are expected.

Financial Aid

Graduate assistantships that support teaching and research activities are available to qualified full-time students. Tuition is paid, and a stipend is provided for living expenses. 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.

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
- BIOL 7191 Graduate Seminar (3 semesters)

Thesis 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 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. 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 each Fall term by the Applied Science Department. Students who select the cell and molecular biology track have two options:

Thesis Option

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 from three of the following five competency areas:

- **Physiology:** BIOL 5403 Comparative Physiology, BIOL 5419 Plant Physiology, 5422 Mammalian Physiology
- **Genetics:** ASCI 7385 Concepts in Genetic Analysis
- **Biochemistry:** CHEM 5420 Biochemistry, ASCI 7375 Biochemistry of Biological Molecules
- **Computational Biology:** BIOL 5415 Biometry
- **Ecology and Evolution:** BIOL 5410 Evolution, BIOL 5412 Plant Ecology

Course Work Only Option

36 semester hours to include core requirements listed above, 3 hours of seminar, and the remaining courses to be electives.

Thesis and Advisory Committee

The student's Advisory Committee will be composed of at least three faculty members, including the student's thesis advisor. The student must select a thesis 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 Guide found on the Graduate School web site.

Students in the non-thesis (course work) track must select an Advisory Committee of at least three faculty members who will guide the student in his/her course work sequence and oversee the student's progress.

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.

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);
- Successful completion of the writing and seminar requirements

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 science 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 basis 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), Linea 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.

Graduate Business Programs

Reynolds Center
569-3356

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

- Master of Accountancy (MACC)
- Master of Business Administration (MBA)
- Executive MBA for Experienced Managers
- Master of Science in Management Information Systems (MS in MIS)
- Master of Science in Taxation (MST)

The COB partners with the School of Law to offer a concurrent MBA-JD degree and with UAMS to offer concurrent MBA-PharmD and MBA-MD programs. In addition, the COB offers Graduate Certificates in Accountancy, Taxation, Information Systems Leadership, Management, and Management 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, (1) to facilitate entry and career growth in the field of Accounting, including the completion of the 150-hour CPA exam requirements (2) to add significant value to participants' previous Accounting education, and (3) to provide an integrated yet diverse graduate program in accounting education. Students interested in the MACC program should contact Dr. Robert R. Oliva, Chair, Department of Accounting, at (501)569-3351 (or email rroliva@ualr.edu).

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: 1) an understanding of the strategically interrelated functional areas of business; 2) the use of analytical skills, critical thinking skills, and technology to solve contemporary business problems; 3) an understanding of the impact of diversity and global and ethical perspectives in business; and 4) 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 Executive MBA (EMBA) curriculum covers the same breadth of subject matter encompassed in the MBA program. It has been designed for experienced managers and professionals who seek a working knowledge of business concepts as well as the ability to utilize this information in daily decision-making. Courses have been sequenced so that one course builds on another. The courses are designed to compliment and enhance the varied work experiences and backgrounds of the students. The EMBA program requires 46 semester hours (credits). This is an 18-month, lock-step program, and all classes are completed with the same cohort group. A new class starts each year. Classes generally meet Friday and Saturday on alternate weekends. The program also includes a residency week shortly after the program starts and an international trip at the end of the first year. Students interested in the Executive MBA program should contact the EMBA Director at 501.569.8867 (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 Associate Dean, Felicia Epps (email afepps@ualr.edu). Pharmacy students interested in the concurrent MBA-PharmD program should contact Cindy Stowe (501) 686-6484 or (stowecindy@uams.edu). Medical students interested in the concurrent MBA-MD program should contact Dr. Richard Wheeler at (501) 686-8499 (or WheelerRichard@uams.edu).

The Master of Science in Management Information Systems (MS in MIS) integrates knowledge of information technology (IT) and the functional areas of business. This program places emphasis on strategic IT applications and development of project management, team, and communication competencies.

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 MIS program should contact Dr. Robert Mitchell, Chair, Department of Management at (501) 569-3383 (or email rbmitchell@ualr.edu).

The Master of Science in Taxation (MST) is designed for students holding an accounting undergraduate degree, or its equivalent. The goals of the MST are, (1) to facilitate entry and career growth in the field of Accounting, including the completion of the 150-hour CPA exam requirements (2) to add significant value to participants' previous Accounting education, and (3) to provide an integrated yet diverse graduate program in accounting education. Students interested in the MST program should contact Dr. Robert R. Oliva, Chair, Department of Accounting, at (501)569-3351 (or email rroliva@ualr.edu).

The Graduate Certificate Programs in Accountancy and in Taxation (ACCT-GC and TAXN-GC) each consists of 12 graduate credits which may be completed in the evenings or on weekends. 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 can 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 Dr. Robert Oliva, Chair, Accounting Department at (501) 569-3352 (or email rroliva@ualr.edu).

The Graduate Certificate in Information Systems Leadership (ISLR-GC) is a 15 credit program designed to provide the technology professional a focused collection of course work to build proficiency in areas essential to IS leadership. The program is designed for post-baccalaureate students and working professionals with an MIS or related background who are interested in moving into leadership roles within their organizations or in preparation for entering a master's program. Course work completed for the certificate may be applied to the Master of Science degree in MIS. Students interested in this certificate program should contact Dr. Robert Mitchell, Chair, Department of Management at (501) 569-3383 (or email rbmitchell@ualr.edu).

The Graduate Certificate in Management (MGMT-GC) is a 12 credit program designed to provide an integrated and efficient exposure to the discipline of management. The program provides post-baccalaureate students and working professionals a foundation to facilitate entry into and progression in management. This certificate program exposes students to management applications including human behavior in organizations, motivation, leadership, and managing staff and resources. Coursework completed for the certificate may be applied to the MBA program. Students interested in the certificate program should contact Dr. Robert Mitchell, Chair, Department of Management at (501) 569-3383 (or email rbmitchell@ualr.edu).

The Graduate Certificate in Management Information Systems (MGIS-GC) is a 12 credit program designed to provide students focused course work to gain knowledge and skills for entering or progressing in 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 degree program. Course work completed for the certificate may be applied to the Master of Science degree in MIS. Students interested in this certificate program should contact Dr. Rhonda Syler at (501) 569-8889 (or rsyler@ualr.edu) or Dr. Robert Mitchell, Chair, Department of Management at (501) 569-3383 (or email rbmitchell@ualr.edu).

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:

- Fall Semester - July 15th
- Spring Semester - December 15th
- Summer Semester April 15th

Prospective students are encouraged to submit their online application form and other documents well in advance of stated deadlines. (See <http://www.ualr.edu/gradschool/> for application information.) For information regarding EMBA application deadlines and start dates, contact the EMBA Director at 501.569.8863 or email mbaadvising@ualr.edu.

Students may enter the Graduate Certificates, MACC, MBA, MS in MIS, or MST programs in any semester or summer session.

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. In order 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 a directed research 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.

Transfer Credits

Credit for course work completed at another college or university is applied without limit to Foundation course requirements. 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, MS in MIS or MST. Transfer credits cannot be used to waive program requirements for the Graduate Certificate Programs or for the Executive MBA.

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 can not 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.

Program Changes Between the MACC, MBA, MS in MIS, and MST Programs

Graduate business students, who are currently active and in good standing with a GPA of at least 3.0, and meet all other admission program specific requirements may switch between the various graduate business programs without providing further documentation. Visit <http://www.ualr.edu/gradschool/> for a change of program form.

Reenrolling in Graduate Business Programs

Former graduate business 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 as 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 can not also be counted towards graduate degree requirements.

Undergraduate Equivalent Courses

Requirements for MBA and MS in MIS Foundation courses may be fulfilled with undergraduate equivalent courses with a grade of C or better. Undergraduate courses cannot be used to waive or fulfill core or elective requirements in any graduate business program.

Graduation Requirements

Students must complete all required courses and earn an overall GPA of 3.0 or higher in order 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.

Attempt Limit for Graduate Accounting Classes

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

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.

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.

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, distance learning classroom, or executive 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.

Master of Accountancy (MACC) and Master of Science in Taxation (MST)

MACC and MST Admission Requirements

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* Overall GPA (based on a 4.0-point scale) + GMAT Score greater than or equal to 1020 or
- 200* GPA in last 60 semester hours (or equivalent) + GMAT Score greater than or equal to 1080
- The minimum acceptable GMAT Score is 420 and the minimum acceptable GPA 2.50.

The GMAT exam will be waived if one of following two criteria is met:

- 1) Applicant has passed all parts (or levels) of a professional licensing exam in accounting, finance or law or
- 2) 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.

GMAT scores used for admission must be taken within the past five years. 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.

MACC Program Requirements

Required Core Courses (12 Credits)

- ACCT 7361: Advanced Topics in Auditing
- ACCT 7362: Advanced Topics in AIS
- ACCT 7363: Accounting Theory and Research
- ACCT 7364: Advanced Topics in Managerial Accounting

Breadth Courses (12 Credits)

Four (4) approved graduate accounting or taxation courses or three (3) approved graduate accounting and taxation courses and one (1) approved graduate-level Finance course.

Electives (6 credits):

Any approved graduate course.

MST Program Requirements

Required Core Courses (12 hours)

- ACCT 5323: Research in Federal Taxation
- ACCT 5366: Federal Corporate Taxation
- ACCT 7360: Taxation of Pass-Through Entities
- ACCT 7370: Estate and Gift Taxation

Breadth Courses (12 credits)

Four (4) approved graduate accounting or taxation courses or three (3) approved graduate accounting and taxation courses and one (1) approved graduate-level Finance course.

Electives (6 credits):

Any approved graduate course.

Certain graduate business courses cannot be used to fulfill either the breadth or elective requirements in the MACC or MST --e.g. MBA Foundation courses, ACCT 7304 or ACCT 7330.

Students may count a maximum of 6 credits or 5000-level courses towards their Masters in Accountancy and the Master of Science in Taxation program requirements.

If a student receives more than 2 grades of C or lower, he or she will be dropped from the program.

Master of Business Administration (MBA)

MBA Admissions Requirements

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

- (200X cumulative GPA) + GMAT score greater than or equal to 1020

or

- (200X GPA in last 60 semester hours) + GMAT score greater than or equal to 1080
- Applicants with a GPA less than 2.50 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.

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.

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.

MBA Program Requirements

Foundation Courses (18 graduate or 33 equivalent undergraduate credits)

ACCT 7302 Accounting Methods and Reports (or ACCT 2310 Principles of Accounting I & ACCT 2330 Principles of Accounting II)

ECON 7300 Economic Principles (or ECON 2322 Principles of Microeconomics & ECON 2323 Principles of Macroeconomics)

ECON 7320 Quantitative Analysis (or ECON 2310 Business Statistics & ECON 2312 Quantitative Methods)

MKTG 7301 Marketing Analysis, Planning and Control (or MKTG 3350 Principles of Marketing & MKTG 2380 Legal Environment of Business)

FINC 7301 Financial Management (or FINC 3310 Business Finance)

MGMT 7302 Management and Organizational Behavior

(or MGMT 3300 Organizational Behavior and Management & MGMT 3305 Management Information Systems)

Note: All Foundation courses will be waived if the students has an undergraduate degree in business from an AACSB accredited school with a GPA of 3.25 or higher.

Required Core Courses (30 graduate credits)

ACCT 7304 Accounting for Decision Making (See notes)

ECON 7313 Managerial Economics

FINC 7311 Corporate Financial Planning

MGMT 7310 Organizational Behavior

MGMT 7350 Information Systems Management

MKTG 7311 Marketing Strategy (See notes)

MGMT 7380 Corporate Strategy (Capstone Course to be taken at end of program)

Electives (9 credits)

Students who have completed 12 or more credits of accounting classes at the 3000 or 4000 level will be permitted to replace ACCT 7304 with a graduate-level accounting elective. This will also enable these students to simultaneously complete a MBA and Graduate Certificate in Accountancy or Taxation.

Students who have completed 12 or more credits of marketing classes at the 3000 or 4000 level will be permitted to replace MKTG 7311 with a graduate-level marketing elective.

Students may complete a concentration by taking all three elective courses in the same area. Concentrations are available in accounting, finance, international business, management, and marketing. A concentration is not required, and students may choose electives from multiple areas. No more than six hours of 5000 level courses will be accepted in the MBA program.

Executive MBA Program (EMBA)

EMBA Admission Requirements

Five or more years of management or professional experience. (Applicants must submit a resumes and letters of recommendation attesting to their professional experiences. The Admissions Committee will also conduct an interview to determine level of experience and readiness for the Executive MBA.)

The GMAT is not required but may be requested by the Admissions Committee.

A support agreement signed by the applicant's employer giving permission for participation in classes during normal work hours.

EMBA Required Courses (46 graduate credits)

ACCT 8400 Accounting Information for Decision Making

ACCT 8208 Legal and Ethical Issues in Business

ECON 8200 Economic Principles

ECON 8210 Economic Strategy

ECON 8320 Statistical Methods in Business

FINC 8310 Financial Management

FINC 8311 Financial Planning

IBUS 8300 Field Study in International Business

IBUS 8400 Seminar in International Business

MGMT 8100 Information Systems Technology

MGMT 8107 Leadership Foundation

MGMT 8108 Strategic Applied Leadership

MGMT 8270 Operations Management

MGMT 8380 Strategic Management

MGMT 8310 Applied Organizational Behavior

MGMT 8341 Human Resource Management

MKTG 8301 Marketing Management

MKTG 8311 Marketing Strategy

Concurrent MBA Programs

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) In order 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:

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.

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.

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.

A student who has completed one degree may not thereafter enter the concurrent degree program to complete the other degree.

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.

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.

Grade point averages and class standings in each program are determined without consideration of the six hours of credits accepted from the other program.

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 in Management Information Sciences (MS in MIS)

MS in MIS Admission Requirements

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

- 1) 200*overall UG GPA + GMAT greater than 1020; or
- 2) 200* last 60 hours UG GPA + GMAT greater than 1080

In all cases: 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: <http://www.ets.org/gre/2008/9934/tool.html>)

Exceptions:

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

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.

MS in MIS Program Requirements

Foundation Courses (12 graduate or 24 undergraduate credits)

- ACCT 7302 Accounting Methods and Reports or
- ACCT 2310 Principles of Accounting I and
- ACCT 2330 Principles of Accounting II
- MKTG 7301 Marketing Analysis, Planning and Control or
- MKTG 3350 Principles of Marketing and
- MKTG 2380 Legal Environment of Business
- MGMT 7302 Management and Organizational Behavior or
- MGMT 3300 Organizational Behavior and Management and
- MGMT 3305 Management Information Systems
- MGMT 7303 Systems Development and Database Design or
- MGMT 3307 Systems Dev Methodologies and
- MGMT 4350 Business Data Mgmt Systems

Required Core Courses (33 graduate credits)

- ACCT 7330 Managerial Accounting for Information Systems Specialists
- MGMT 7304 Business Applications in Object-Oriented Programming
- MGMT 7305 Advanced Data Management Systems
- MGMT 7307 Systems Analysis and Design Methods
- MGMT 7308 Advanced Business Communications
- MGMT 7312 Team Development
- MGMT 7350 Information Systems Management
- MGMT 7352 Emerging Technologies
- MGMT 7353 Project Management (Capstone Course to be taken at the end of program.)

Electives (6 credits)

Graduate Certificate in Accountancy

Admission Requirements

A Bachelor's degree in Accounting (or equivalent) from an accredited institution of higher education. Applicant must meet one of the following admissions criteria:

- 1) Overall GPA (based on 4.0-point scale) greater than or equal to 2.80,
- 2) GPA in last 60 semester hours (or equivalent) greater than or equal to 3.00, or
- 3) 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, MACC, or MST electives. Concurrent enrollment in the a Graduate Certificate and the MBA, MACC, or MST programs are permitted. Certificate students who are not concurrently enrolled in the MBA, MACC, or MST programs are limited to the courses in their respective certificate programs. Also, concurrent enrollment in a masters program requires meeting all admission standards in said masters program.

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 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 5366 or 7366 Federal Corporate Taxation
- ACCT 5323 Research in Federal Taxation or 7367 Federal Tax Research, Practice, and Procedure
- 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 Information Systems Leadership

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:

- 1) Passage of select rigorous professional certification exams such as the Project Management Professional, MCSE and MCSD exams. In this case a resume and personal interview required. Decision of Management Department Admission Committee and/or Program Coordinator is final.

- 2) At least 5 years of substantial relevant professional experience. In this case a resume and personal interview required. Decision of Management Department Admission Committee and/or Program Coordinator is final.

Program Requirements

The Graduate Certificate in Information Systems Leadership consists of 15 hours from the following courses:

Required Core Courses (12 hours)

- MGMT 7307 Systems Analysis and Design Methods
- MGMT 7312 Team Development
- MGMT 7350 Information Systems Management
- MGMT 7352 Emerging Technologies and Strategic Issues

Elective Courses (3 hours)

- MGMT 7302 Management and Organizational Behavior
- MGMT 7303 Systems Development and Database Design
- MGMT 7304 Business Applications in Object-oriented Programming
- MGMT 7305 Advanced Database Management Systems
- MGMT 7308 Advanced Business Communications

Graduate Certificate in Management

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:

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

Program Requirements

The Graduate Certificate in Management consists of 12 hours of course work from the following courses:

Required Core Courses (9 hours)

- MGMT 7302 Management and Organizational Behavior (*students with an undergraduate degree in business may substitute an elective course for MGMT 7302*)
- MGMT 7310 Organizational Behavior
- MGMT 7341 Human Resource Management and Industrial Relations

Elective Courses (3 hours)

- MGMT 7308 Advanced Business Communication
- MGMT 7311 Entrepreneurship
- MGMT 7312 Team Development
- MGMT 7335 International Management
- MGMT 7371 Production/Operations Management
- MGMT 7398 Seminar in Special Topics
- One 5000-level course

Graduate Certificate in Management Information Systems

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:

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

Program Requirements

The Graduate Certificate in MIS consists of 12 hours of course work in the following courses:

Required Core Courses (6 hours)

- MGMT 7305 Advanced Database Management Systems
- MGMT 7307 Systems Analysis and Design Methods

Electives (6 hours)

The remaining course work should be selected from the following:

- MGMT 7302 Management and Organizational Behavior
- MGMT 7303 Systems Development and Database Design
- MGMT 7304 Business Applications in Object-oriented Programming
- MGMT 7308 Advanced Business Communications
- MGMT 7312 Team Development
- MGMT 7350 Information Systems Management
- MGMT 7352 Emerging Technologies and Strategic Issues

Not more than one course from the following:

- MGMT 5310 Network Technologies
- MGMT 5312 Object-oriented Programming
- MGMT 5350 Database Management Systems

Graduate Certificate in Taxation

Admission Requirements

A Bachelor's degree (any major) from an accredited institution of higher education and

one or more courses in federal taxation. Applicant must meet one of the following admissions criteria:

- Overall GPA (based on a 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 Taxation may be used as MBA, MACC, or MST electives. Concurrent enrollment in the Graduate Certificate and the MBA, MACC, or MST programs is permitted. Certificate students who are not concurrently enrolled in the MBA, MACC, or MST programs are limited to the courses in their respective certificate programs. Also, concurrent enrollment in a masters program requires meeting all admission standards in said program.

Program Requirements

Required Core Course (3 credits)

ACCT 5323 Research in Federal Taxation or
ACCT 7367 Federal Tax Research, Practice, and Procedure

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 7360 Taxation of Pass-Through Entities
ACCT 7365 State and Local Taxation
ACCT 5366 or 7366 Federal Corporate 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)

Courses in Accounting

ACCT 5322 Federal Taxation II

ACCT 5322 Federal Taxation II Prerequisite: ACCT 3321 with a grade of C or higher. Federal income tax topics related to partnerships and partners, corporations and shareholders, trusts and estates, research methods in tax practice, survey of the unified estate and gift tax law. This course is not open to students with prior credit for ACCT 4322, 4366, 5366, 7360, 7366 or 7370. This course is open to all graduate business students, but it can not be applied to the MACC or the MST.

ACCT 5323 Research in Federal Taxation

Prerequisite: ACCT 3321 with a grade of C or better and graduate status. 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 can not be taken by students with credit for ACCT 4323 or ACCT 7367.

ACCT 5366 Federal Corporate Taxation

Prerequisite: ACCT 4323 with a grade of C or better; or ACCT 5323 or ACCT 7367 with a grade of B or better. Concurrent enrollment in ACCT 5323 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 business students, but can not be taken by students who have taken ACCT 4366 or 7366.

ACCT 5381 Legal, Regulatory and Ethical Environment for Accountants

Prerequisite: MKTG 2380 with a grade of C or greater and graduate status. 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 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 can not be used as an elective in any graduate business program. Open only to students in the MBA program and the MS in MIS or Pre-MS in MIS programs

ACCT 7304 Accounting for Decision Making

Prerequisites: ACCT 7302 or equivalent. Focuses on the users of accounting information and the effect management decisions have on accounting records. Emphasizes through case studies accounting methods for and informational use of data contained in externally and internally generated accounting reports. Topics include the various financial statements, dividends, common stock and bond financing, stock based compensation plans, and short and long term investments. Methods for pricing products, controlling costs, and non-routine decisions are also reviewed. Open to students in the MBA and MS in MIS programs. This course can not be applied towards the Graduate Certificates in Accountancy or Taxation, the MST or the MACC.

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 can not be applied to the Graduate Certificates in Accountancy or Taxation, the MACC or the MST.

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

Prerequisite: ACCT 3321 (or equivalent) with a grade of C or greater. 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 can not be applied against the graduate certificate and masters programs in accountancy or taxation.

ACCT 7340 International Accounting

Prerequisite: ACCT 2310, ACCT 2330, ACCT 3311, ACCT 3312, and ACCT 4314, each with a grade of C or greater; and graduate status. 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 7360 Taxation of Pass-Through Entities

Prerequisite: ACCT 4323 with a grade of C or better; or ACCT 5323 or ACCT 7367 with a grade of B or better. Concurrent enrollment in ACCT 5323 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 Auditing Theory and Practice II

Prerequisites: ACCT 3341, 4351 (or equivalent), each with a grade of C or greater; and graduate status. 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 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, each with a grade of C or greater; and graduate status. 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:

Prerequisite: ACCT 4351 (or equivalent) with a grade of C or greater. 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, each with a grade of C or greater; and graduate status. 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 4323 with a grade of C or better; or ACCT 5325 or ACCT 7367 with a grade of B or better. Graduate Status. Concurrent enrollment in ACCT 5323 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 and graduate status. 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: ACCT 4323 with a grade of C or better, ACCT 5323 with a B or better, or ACCT 7367 with a B or better; and ACCT 4366 with a C or better, ACCT 5366 with a B or better, or ACCT 7366 with a B or better. 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 4323 with a grade of C or better, ACCT 5323 with a B or better, or ACCT 7367 with a B or better. Concurrent enrollment in ACCT 5323 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 4323 with a grade of C or better, ACCT 5323 with a B or better, or ACCT 7367 with a B or better. Concurrent enrollment in ACCT 5323 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 4323 with a grade of C or better, ACCT 5323 with a B or better, or ACCT 7367 with a B or better. Concurrent enrollment in ACCT 5323 is permitted. 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 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 8208 Legal and Ethical Issues in Business

Only open to Executive MBA students.
Introduction to the framework for doing business in the U.S. legal system. Constitutional principles; crimes affecting business; tort and product liability; contract formation and remedies; intellectual property; environmental regulation and mandates. All topics will address the ethical, social, and political issues that influence the workplace and American society.

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.

ACCT 8400 Accounting Information for Decision Making

Only open to Executive MBA students.
Understanding financial statement components; preparing and using financial, managerial, and cost accounting information in making business decisions. Application of basic tax principles to the decision making process is also included.

Courses in Business Administration

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 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 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 Managerial Economics

MBA Core Course or MS in MIS Elective.

Prerequisite: ECON 7300 or equivalent and ECON 7320 or equivalent. Use of economic analysis in public, private sector managerial decision making; microeconomic topics include demand theory and estimation, market structure analysis, pricing policies, game theory, capital expenditures; macroeconomic topics include forecasting, how monetary and fiscal policies influence macroeconomic variables.

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 MIS 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 MIS 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 which 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 MIS 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 MIS 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 8200 Economic Principles

Only open to Executive MBA students.

Theory of the individual firm in the economy; utility, demand theory, elasticity, cost, and price determination, and strategic position of the firm in an industry.

ECON 8210 Economic Strategy

Only open to Executive MBA students.

Prerequisite: ECON 8200. A systematic study of economic forces affecting the business firm and their impact on corporate strategy.

ECON 8300 Seminar in Current Topics

MBA or MS in MIS Elective.

Prerequisite: Consent of instructor. Topics of current importance and interest in economics.

ECON 8320 Statistical Methods in Business

Only open to Executive MBA students.

Statistical analysis with applications in business. Topics include descriptive statistics, probability, sampling theory, hypothesis testing, and regression analysis. Theoretical concepts are reinforced through the use of computer projects.

Courses in Finance

FINC 5320 Bank Financial Management

MBA Elective

Prerequisite: FINC 3310 or equivalent. Analysis and management of the asset and liability portfolio of depository financial institutions. Not open to students with credit for FINC 4320.

FINC 5330 International Finance

MBA Elective

Prerequisite: FINC 3310 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. Not open to students with credit for FINC 4330. FINC 5362 Derivatives

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 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 Corporate Financial Planning

MBA Core Course or MS in MIS Elective.

Prerequisite: FINC 7301 or equivalent. 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 7320 Advanced Investment Analysis

MBA or MS in MIS 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 7325 Financing Entrepreneurial Ventures

MBA or MS in MIS Elective.

Prerequisite: FINC 7301. 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 MIS Elective.

Prerequisite: FINC 7301 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 7340 Real Estate Markets

MBA or MS in MIS 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 MIS Elective.

Prerequisite: FINC 7301 or equivalent. Functions of financial intermediaries; assets, liabilities management analysis; historical highlights, future growth prospects; problems, solutions.

FINC 7362 Derivatives

Prerequisite: FINC 7301 or equivalent with grade of C or better. The cash, futures, and options markets for commodities and financial instruments will be examined. An economic perspective will be used to analyze the development, functions, and mechanics of these markets. The goal is to integrate an understanding of these markets into specific economic situations in order to improve the decision-making process. Not open to students with previous credit for FINC 4362.

FINC 7399 Independent Study

MBA or MS in MIS 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 MIS Elective.

Prerequisite: Consent of instructor. Topics of current importance and interest in finance.

FINC 8310 Financial Management

Only open to Executive MBA students.

Prerequisites: ACCT 8400, ECON 8200 and ECON 8320. The application of financial management concepts to a firm. Topics include financial statement analysis, time value of money, valuation of stocks and bonds, capital asset pricing, capital budgeting, cost of capital, dividend policy, capital structure, and other special topics.

FINC 8311 Financial Planning

Only open to Executive MBA students.

Prerequisites: FINC 8310. Examines the two major decisions of financial managers - the investment decision and the financial decision - from the perspective of value creation. Further develops the financial theory presented in the introductory course with applications to specific cases. Topics include financial forecasting, cost of capital, capital structure, capital budgeting, long-term financing, business valuation and the market for corporate control.

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

IBUS 8201 Seminar in International Business II

Only open to Executive MBA students

Prerequisites: IBUS 8300 and IBUS 8400. Continues the study of management forces impacting an international business environment for a multinational corporation. Topics include international investment theories, foreign direct investment, foreign exchange markets, foreign currency translation, transfer pricing and issues in international taxation, performance evaluation and financial statement analysis.

IBUS 8300 Field Study in International Business

Only open to Executive MBA students

Prerequisites: IBUS 8400. An international trip that provides an opportunity for students to explore first-hand the international dimensions of business. It provides the student with opportunity to identify and pursue strategic issues in international business and to gain consciousness of the impact of culture on business practices. Students will do extensive research on a country and prepare a report detailing business and cultural practices with political and economic components prior to travel. Upon return, students will prepare a written summary of their experiences and compare expectations prior to the field study with the realities of international business.

IBUS 8400 Seminar in International Business I

Only open to Executive MBA students

A study of management forces impacting an international business environment for a multinational corporation. Topics include the fundamentals of international business management, international marketing and international economics. It provides an overview of international business, its history, trends, and possible future direction as well as the phenomena that impact it.

Courses in Management

MGMT 5310 Network Technologies Local

MBA or MS in MIS 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.

MGMT 5312 Object-oriented Programming

MBA Elective. MS in MIS prerequisite course. Does not apply toward MS in MIS Core requirements.

Beginning object-oriented programming course. Focuses on business problem solving and solution development. This course is not open to students with credit for MGMT 4312.

MGMT 5350 Business Database Management Systems

MBA Elective, MS in MIS prerequisite course. Does not apply toward MS in MIS 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.

MGMT 5361 New Venture Creation

MBA or MS in MIS Elective.

Prerequisites: ACCT 7302, MKTG 7300, FINC 7301, or equivalent, or the consent of the instructor. The role of the entrepreneur in new venture development. Identifying, assessing, and developing, entrepreneurial opportunities. Focus on skills needed for business startup. This course is not open to students with credit for MGMT 4361.

MGMT 5365 Business Consulting

MBA or MS in MIS 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 5383 Issues in Entrepreneurship

MBA or MS in MIS 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.

MGMT 7302 Management and Organizational Behavior

MBA and MS in MIS 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 7303 Systems Development and Database Design

MS in MIS 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.

MGMT 7304 Business Applications in Object-oriented Programming

MS in MIS Core Course. MBA Elective.

Prerequisite: MGMT 4312 or 5312 or equivalent. An exploration of the application of object-oriented methodologies to business information systems through applications development using object oriented programming languages.

MGMT 7305 Advanced Database Management Systems

MS in MIS Core Course. MBA Elective.

Prerequisites: MGMT 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.

MGMT 7307 Systems Analysis and Design Methods

MS in MIS Core Course. MBA Elective.

Prerequisite: MGMT 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.

MGMT 7308 Advanced Business Communication

MS in MIS 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 Organizational Behavior

MBA Core Course. MS in MIS Elective.

Organization theory and principles of managing an organization, including internal and external forces. Emphasis on applications of behavioral sciences in understanding. Predicting, and controlling human behavior in organizations.

MGMT 7311 Entrepreneurship and Small Enterprise Management

MBA or MS in MIS 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 MIS Core Course. MBA Elective.

Organizational theory and principles of developing and managing teams.

MGMT 7315 E-Commerce Technologies

MBA or MS in MIS Elective.

An overview of e-commerce technologies, including analysis of e-commerce infrastructure, technology, and managerial and implementation strategies. Focus on web development.

MGMT 7335 International Management

MBA or MS in MIS 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 MIS 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 Human Resource Management and Industrial Relations

MBA or MS in MIS Elective.

Selected topics in personnel administration; emphasis on topics of current importance that meet specific student needs; individual and group research project using primary and secondary sources; readings, case studies, discussions with guest speakers from national, regional, local enterprises in the metropolitan Little Rock area.

MGMT 7350 Information Systems Management

MBA and MS in MIS 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.

MGMT 7352 Emerging Technologies and Strategic Issues

MS in MIS Core Course. MBA Elective.

Prerequisite: MGMT 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.

MGMT 7353 Project Management

MS in MIS Core Course.

Capstone course to be taken at the end of the program. Prerequisites: MGMT 7304, 7305, 7308, 7312, 7350, and completion of or concurrent enrollment in ACCT 7330. 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.

MGMT 7371 Production/Operations Management

MBA or MS in MIS Elective.

Prerequisite: ECON 7320 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.

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 MIS Elective.

Prerequisite: Consent of instructor. Topics of current importance, interest in management.

MGMT 7399 Independent Study

MBA or MS in MIS 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.

MGMT 8100 Information Systems Technology

Only open to Executive MBA students.

Design of end-user applications and their role in managerial/business decision making; familiarization with the basic productivity software packages and the use of Internet resources in business.

MGMT 8107 Leadership Foundations

Only open to Executive MBA students.

Defines leadership, maps leadership style for the individual, and explains its role in management. It focuses on concepts for developing strategic leadership within the organization, experience and skills for leading organization development and change, team interaction, and styles. It draws on writing, exercises, and students' business experience to explore the foundations and techniques of organizational leadership.

MGMT 8108 Strategic Applied Leadership

Only open to Executive MBA students

This course builds upon MGMT 8107, Leadership Fundamentals, adding the concepts of power, self-leadership, strategic leadership, communication, and compensation, in an application-based format. Students learn the role leadership in gaining competitive advantage, through the analysis, formulation, and implementation of a strategic plan. In addition, leadership is stressed, in regard to establishing measure, communicating results, and compensating individuals within the organization.

MGMT 8270 Operations Management

Only open to Executive MBA students.

Prerequisites: Economics 8320. Addresses topics that have applications both in manufacturing and in services, including quality control methods, forecasting techniques, scheduling and planning, the transportation problem, and project management (PERT/CPM). Computer assignments may be given.

MGMT 8310 Applied Organizational Behavior

Only open to Executive MBA students.

Organizational behavior concepts and applications, such as leadership, motivation, perception, conflict, and communication will be included. Emphasis will be placed on learning the traditional areas of organizational behavior using an experiential learning approach.

MGMT 8341 Human Resource Management

Only open to Executive MBA students.

Contribution of the human resource management function in achievement of organizational objectives. Role of upper and middle management in the establishment and implementation of human resource strategies and policies. Topics of discussion: employee selection, performance evaluation, termination, compensation and benefits, reward systems, counseling, negotiation, and personnel/labor law.

MGMT 8380 Strategic Management

Only open to Executive MBA students.

Prerequisites: FINC 8311, and enrollment in last nine program hours. Integrates the functional areas of business and develops a top management perspective; emphasis on developing executive abilities and creative thinking via practice in formulating value statements, visions, missions, objectives, strategies, policies, and alternative courses of action.

Courses in Marketing

MKTG 5330 Services Marketing

MBA Elective

Examines the major differences between goods and services, as well as the problems associated with these 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.

MKTG 7301 Marketing Analysis, Planning, and Control

MBA and MS in MIS 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 Strategy

MBA Core Course. MS in MIS Elective.

Prerequisite: MKTG 7301 or equivalent. Case study approach to analyzing business marketing problems; emphasis on finding, solving problems of product strategy, pricing, promotional strategy, distribution methods.

MKTG 7312 Markets Analysis

MBA or MS in MIS Elective.

Prerequisites: MKTG 7301, ECON 7320 or equivalent. Analysis of consumer and intermediate markets for purposes of developing marketing strategy; includes income and expenditure patterns, buying decision processes, buyer behaviors, consumption patterns.

MKTG 7313 Marketing Research and Information Systems

MBA or MS in MIS Elective.

Prerequisites: MKTG 7301, ECON 7320 or equivalent. Research methods, application to marketing decision-making; includes problem definition, research design, sampling, data collection and analysis, research presentation.

MKTG 7314 Product Innovation and Marketing Communications

MBA or MS in MIS Elective.

Prerequisite: MKTG 7301 or equivalent. 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 MIS 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 7318 Development and Measurement of Market Driven Quality

MBA or MS in MIS Elective.

Prerequisite: MKTG 7301 or equivalent and graduate standing. A course in Market Driven Quality associated with Total Quality Management (TQM) including the historical origins, the philosophy, principles and tools, and its implementation using a marketing perspective. The focus is on the fundamental assumptions of the TQM philosophy and its marketing applications.

MKTG 7320 E-Commerce: Strategic Issues

MBA or MS in MIS Elective.

Prerequisites: MKTG 7301 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 7381 Law and Ethics in Business

Core course for students entering MBA prior to 2003.

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 MIS 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 MIS Elective.

Prerequisites: Consent of instructor. Topics of current importance, interest in marketing.

MKTG 8301 Marketing Management

Only open to Executive MBA students.

The course has two major objectives for the student: (1) understanding basic marketing concepts involving buyer behavior, product planning, pricing, channels of distribution and promotion, and (2) developing marketing decision making capabilities based on strategic management and analytical skills. The overall objective is to integrate all the functional aspects of marketing with other functional areas of the firm and with the environment, particularly consumption markets, competitions, the economy, legal and regulatory environment, and social evolution.

MKTG 8311 Marketing Strategy

Only open to Executive MBA students.

Prerequisites: MKTG 8301. This course is offered as the second course in a sequence, following the principles of MKTG 8301. The course is designed to enhance the student's ability to formulate and implement a marketing plan, and to better understand the relationship of marketing to other business functions. It will emphasize application of marketing concepts through the use of cases, simulations, or projects.

Master of Arts and Master of Science

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 web site at <http://www.ualr.edu/chem/graduate.html>.

Admission Requirements

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.7 (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 subdisciplines of chemistry.

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.

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).

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 better. 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 better. A survey of environmental chemistry. Topics covered will include: Composition of the atmosphere and behavior; energy and climate; principles of photochemistry and surfactants; halocarbons 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 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 better. 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.

Clinton School of Public Service

Sturgis Hall, 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. Since accreditation is granted only to mature institutions, the Master of Public Service (MPS) degree program is accredited through a consortium of the three largest graduate campuses within the UA System that are licensed to open new degree programs: the University of Arkansas, Fayetteville (UAF); the University of Arkansas at Little Rock (UALR); and the University of Arkansas for Medical Sciences (UAMS).

Each campus brings a wealth of resources to the partnership, including a history of scholarship and academic integrity, with specialty faculties that can provide an instant infusion of excellence into the UACS teaching program. UAF offers master's degrees in public administration and political science and a doctoral program in public policy. UALR offers a master's degree in public administration. UAMS has master's degree programs in health services administration and public health that have a major track in health policy. Law and business schools exist at both UAF and UALR. Elective courses can be taken at any of the three "parent" campuses.

Overview of the Clinton School

The UACS strives to be continually responsive to the needs of its students and the public by:

- Operating as a professional school, linking both academic and practical parameters to explore the world of public service;
- Establishing and maintaining a community of students, scholars, and experienced public servants to address the challenges that confront local, state, national and international leaders;
- Finding innovative ways to address community problems through partnerships and alliances that mobilize and leverage the resources of the public, for-profit, non-profit and volunteer sectors;
- Developing the skills necessary to manage complex problems, taking into account the experience and interest of those who come to public service after first pursuing careers in other fields;
- Emphasizing the importance of civic engagement in the process of comprehensive community development.

Faculty is drawn from across the ideological spectrum and without regard to political party affiliation or nationality. A core group of full-time faculty members is located at UACS; however, a number of faculty members are drawn from the campuses of the UA System, academic institutions throughout the country, and scholars visiting the Clinton Presidential Library.

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 web site at www.uasys.edu.

About Public Service at the Clinton School

Public service encompasses that set of activities, most especially personal dedication and selflessness, that leads to building stronger communities and a more workable and responsive world. UACS students will build on their professional background in a way that encourages them to lend their talents to the world and make it a better place. The Master of Public Service (MPS) degree program is particularly geared to individuals who want to enhance service experience with a strong academic foundation.

We have defined "public service program" to mean educational preparation and training for individuals in non-profit, governmental, professional service, elective office, and for-profit

organizations who are committed to the public good. The school provides a firm grounding for its students in the core concepts of critical analysis and the formulation of program and policy options. There is intellectual rigor in the classroom, but more than that, there is the use of an “immersion” process through field projects with outstanding service organizations as excellent sites for gaining competency in the principles and nuances of public service.

The primary goal is not to train academicians, although that may be an outcome for a few. The goal, rather, is to prepare practitioners in the field, individuals who are captivated and energized by understanding and delivering public service of the highest order.

Admission Requirements

A description of the admissions process and all admissions forms are available on the Clinton School web site (<http://www.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.

In addition to the completed application, please submit the following:

- Three written essays (500 words).
- A current resumé or curriculum vita that includes a description of public service experiences;
- A transcript of college 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. 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 web site.

- 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.
- All students must be enrolled on a full-time basis.

International Applicants must also submit the following:

- 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 submit a minimum score of 550 for the paper-based examination or 213 for the computer-based examination on the Test of English as a Foreign Language (TOEFL). The test must have been taken within the two years immediately preceding the requested year of admission. An original copy of the test score, sent by the testing agency to UACS, is required before any action is taken on an application. The copy of the score provided to the student (subsequently forwarded to UACS) is not acceptable.

Tuition, Fees and Estimated Costs

Tuition and fees are \$400 per semester hour for residents and non-residents; an additional graduation fee of \$50 will be assessed upon completion of the course of studies. Fees incorporated as part of the tuition charge include orientation, instructional equipment, technology, library, and other miscellaneous charges. Additional charges may be assessed on the parent campuses (UAF, UALR, UAMS) for student activities, sports and recreational events, parking, housing, health services, and the like. Please visit the UACS web site 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.

MPS Degree Program Requirements

The MPS degree requires 36 credit hours for graduation. Twenty-five (25) credit hours are required from core and elective courses with the remainder from public service field projects – including practicum, internship, and capstone.

Required Core Courses (16 hours)

- CSPA 7201 Ethical and Legal Parameters of Public Service
- CSPA 7303 Communications Processes and Conflict Transformation
- CSPA 7323 Leadership in Public Service
- CSPA 7333 Analysis for Decision Making in Public Service
- CSPA 7215 Seminar in Professionalism in Public Service
- CSPA 7313 Dynamics of Social Change

Electives (9 hours, excludes internship)
International Public Service Project (3 hours)
Practicum (5 hours)
Capstone Project (3 hours)
Program Total - 36 Hours

Suggested Academic Plan of Study

Year 1 - Fall Semester

Core Courses: CSPA 7201, 7303, 7323, 7333
Practicum I (Group Field Project)

Year 1 - Spring Semester

Core Courses: CSPA 7215, 7313
Practicum II (Group Field Project)
Electives

Year 1- Summer Term

Capstone Project
Electives

Year 2- Fall Semester

Capstone Project (continued)
Electives

MBA/JD Concurrent Degree

For students interested in obtaining both the Master of Public Service (MPS) and Juris Doctor (JD), the MPS/JD concurrent degree program is available. This program allows the student to receive both the MPS and the JD degree. The program requires separate application and admission to both the Clinton School of Public Service and the UALR Bowen School of Law programs. Students participating in the MPS/JD program must file a degree plan for both degrees and obtain prior approval to take courses to be used for reciprocal credit. Interested students should obtain applications from both the Clinton School of Public Service and the Bowen School of Law. More information on this concurrent program is available on the Clinton School of Public Service website.

MBA/MPH Concurrent Degree

For students interested in obtaining both the Master of Public Service (MPS) and Master of Public Health (MPH), the MPS/MPH concurrent degree program is available. This program allows the student to receive both the MPS and the MPH degree. The program requires separate application and admission to both the Clinton School of Public Service and the UAMS Fay W. Boozman College of Public Health programs. Students participating in the MPS/MPH program must file a degree plan for both degrees and obtain prior approval to take courses to be used for reciprocal credit. Interested students should obtain applications from both the Clinton School of Public Service and the Boozman College of Public Health. More information on this concurrent program is available on the Clinton School of Public Service website.

MBA/MPS Joint Degree

For students interested in obtaining both the Master of Public Service (MPS) and Master of Business Administration (MBA), the MPS/MBA dual degree program is available. This program allows the student to receive both the MPS and the MBA degree. The program requires separate application and admission to both the Clinton School of Public Service and the Graduate School of Business and the MBA degree programs. Students participating in the MBA/MPS program must file a degree plan for both degrees and obtain prior approval to take

courses to be used for reciprocal credit. Interested students should obtain applications from both the Walton College Graduate School of Business and the Clinton School of Public Service. More information on this concurrent program is available on the Clinton School of Public Service website.

Courses in Public Service

CSPA 7110, 7210, 7310 Special Topics in Public Service

Designed to cover specialized topics not usually presented in depth in regular courses. May be repeated for 6 hours.

CSPA 7125 Public Finance for the Public Service Professional

This course is a conceptual introduction to the role of public finance in facilitating social change within a community. Basic principles and concepts of the municipal bond market, the public finance process, general public finance law, federal securities law, and federal law will be introduced.

CSPA 7126 Grant Writing for the Public Service Professional

This course explores grant proposal writing as an important tool of resource development and an increasingly significant strategy to generate funding for community, agency, and government projects. Students will be introduced to strategies that are used to compete for needed resources. This course is designed to complement public service course and fieldwork at the Clinton School.

CSPA 7127 Media Relations for Public Service Professional

This course is an introduction to media relations for public service practitioners. Basic principles and concepts of cross-platform news coverage and public relations will be examined as they relate to public service entities. Topics covered will include writing, editing, and electronic message creation for broadcast, print, and public relations distribution, including the Web and video. Interviewing skills for public service agencies that interface with mass media will also be explored and refined.

CSPA 7128 Marketing the Non-Profit for the Public Service Professional

Non-profit organizations are playing an increasingly important role in providing services and direction to address the issues of our day. Their funds often come from government sources and private foundations, but often these organizations are dependent on funds from marketing-driven private donations. An introductory overview of marketing non-profit organizations will be presented, and students will explore specific areas of interest. Topics discussed include direct mail, marketing on-line, branding, relationships with corporations for cause marketing and licensing, special campaigns, public relations, and social marketing.

CSPA 7135 Professional Development Special Topics

This course is a variable topic seminar designed to address the specific professional development needs of those pursuing careers in public service. Topics will vary in an effort to address the specific professional development needs of the students.

CSPS 7140, 7240, 7340, 7540, 7640 Practicum

The group practicum, a year-long required course in the first year of the MPS degree program, is taught in multiple sections with each section involving a partnership with one or more Arkansas organizations of strategic importance to the school and student learning. Potential practicum partners include such organizations as Southern Bancorp/Southern Financial Partners, the Foundation for the Mid-South, State agencies (e.g., 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.

CSPS 7201 Ethical and Legal Parameters of Public Service

Ethical and legal considerations shape every aspect of effective leadership in 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.

CSPS 7215 Seminar in Professionalism in Public Service

A career in public service means working for the benefit of others through good works. It demands a personal dedication and selflessness that leads to building stronger relationships, stronger communities, and a more workable and responsible world. This course is designed to help students gain knowledge and experience to further their careers in the areas of nonprofit, governmental, volunteer, or private sector work. The material in this course extends the knowledge and skills sets developed in the Communication and Conflict Transformation and Leadership courses and compliments the students' on-going work in the practicum. The seminar will draw upon the skills and expertise of visiting speakers in the Clinton School's public program in effort to enhance the students' personal and professional growth.

CSPS 7303 Communication Processes and Conflict Transformation

The course is designed to increase your personal communication effectiveness as a leader and public servant. It will challenge students to assess their own communication strengths and weaknesses. The course will help in crafting authentic and compelling leadership messages, in developing relationships with those who are to be led and served, and in facilitating public dialogue and transformational conflict. Students will need to develop skills in writing, speaking, listening, interpersonal communication, negotiation, and conflict management. The course will also enable students to understand the application of the same communication processes in the public arena – facilitating public discussions of difficult issues, sustaining partnerships and collaboration, and using the energy of conflicts to transform organizations and societies. Three credit hours.

CSPS 7313 Dynamics of Social Change

The course deals with the elements of social change in a democratic society, and how these intersect with and are impacted by some of the more tangible economic and political forces. A critical examination of the various justifications for promoting or discouraging social change will be undertaken, and the inherent strengths and weaknesses of these various approaches will be analyzed. Real-world cases will be used, and a culminating exercise will be a strategic assessment of the Lower Mississippi Delta – identifying, justifying, and planning specific social change strategies. Three credit hours.

CSPS 7323 Leadership in Public Service

Leadership in public service requires strong interpersonal and management skills, both to direct an organization effectively and to work successfully with other individuals and organizations. This course will provide students with opportunities and experiences that improve their leadership skills and will enhance student capabilities in organizational management, especially diverse cultural settings. Using leadership and personality descriptors, students will develop a personal leadership philosophy and a personal action plan that includes resources to assist them in moving toward their plans. Using case studies, students will better understand how organizational and cultural contexts affect leadership strategies. Three credit hours.

CSPS 7333 Analysis for Decision Making in Public Service

This course is intended to provide 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. Students, working in teams, will be challenged to apply their skills to cases related to affordable housing and homelessness. Three credit hours.

CSPS 7343 Economics in Public Service

This course offers a survey of economic concepts and illustrates how the concepts apply in a variety of contexts. It covers basic concepts of economic growth, international trade, market supply and demand, macroeconomics, and international economics in a series of five modules, plus additional sections of public finance and sustainable development. John Maynard Keynes said of the Theory of Economics... *It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions.* The course will honor that vision and will incorporate the public service experiences of the students into the context of the class discussions.

CSPS 7353 Special Topics Seminar: Health Care Policy and American Society

This semester-long course is designed to provide each student with an opportunity to study, in depth, the many facets of the American health care delivery/financing system. Special attention will be given to concepts of social justice theory and implied human rights, and how they pertain to the current health care system. Various political philosophies will be reviewed and how they differ on the question of universal health care coverage/access. Different methods of financing and ultimate responsibility for who bears health care costs will be discussed. The history, policies, and goals of the current health care financing and delivery system will be reviewed in considerable detail. Pragmatic considerations such as the federal debt/deficit and the cost of the uninsured will be evaluated, with emphasis on how these fiscal realities limit or direct future policy options. Finally, the overreaching politics of health care reform will be considered.

CSPS 7362 Identifying Policy Solutions for Public Service: The Environment

The course will increase student capacity to effectively engage issues in environmental public service. This will be done through creating a learning environment to increase student knowledge and skills for leading environmental public service efforts. We will draw upon works in environmental policy, political and educational psychology, education, history, environmental economics, and ethics to develop your analytical and policy assessment skills. We will briefly survey and critique theories concerning the relationship of environmental attitudes to behavior, policy, and quality. The course will give attention to environmental education and how it can be used by organizations to change attitudes towards policies, particularly in light of their implications for public participation and building democratic capacity.

CSPS 7363 Governmental Interventions in Markets: Environmental Regulation, Utility Regulation, and Antitrust Regulation

This course will introduce students to the ways in which competitive markets may fail, and why government intervention is needed in those cases. Special attention is paid to market failures associated with negative externalities, natural monopolies, and anticompetitive practices by monopolists and oligopolists. Governmental responses discussed are environmental regulation, utility regulation, and antitrust regulation.

CSPS 7373 Education Reform Workshop

During this workshop, students will become better education reform “consumers” and “producers.” Students will compare and analyze contemporary education reforms in preparation for developing their own education reform proposals. Students will analyze the assumptions, logic effectiveness, and cost of contemporary education reforms and will ultimately evaluate and suggest improvements to their peers’ reform proposals. The course will focus on education reforms popular in the United States, but reform in other national contexts will be included to offer alternative ideas and strategies.

CSPS 7383 Professional Communication and Civic Engagement

This course, following the principles of a social construction perspective of communication, focuses on the communicative behaviors used in effective civic participation. Following a review of the practical implications of social construction theory on civic engagement, students will study and put into practice the kinds of effective interpersonal and public communication that contributes to effective public service.

CSPS 7393 Studies in American Grand Strategy

This is a seminar about American foreign policy. It is designed to give students a greater understanding of current debates over U.S. grand strategy and the role of the United States in the world today. Particular attention will be devoted to the War in Iraq and the Bush Doctrine of Preemption. Using their knowledge of history and past approaches to grand strategy, graduates of this seminar will be able to critique current U.S. foreign policy and provide thorough and well supported recommendations for the future. This is an intensive, hands on course that assumes a certain level of knowledge of American foreign policy.

CSPS 7130, 7230, 7330, 7430, 7530, 7630 International Public Service Project

Prerequisites: completion or required core courses, practicum, and electives with a cumulative 3.0 GPA or higher. This project is designed to provide a practical or “hands-on” experience with student placement in a host public service agency or organization that is located overseas or that has a global dimension to its work if located in the U.S. The project will allow students to participate in the daily activities of the public service agency while serving as an integral member of the organizational staff. Students are expected to engage in a public service project that builds on the knowledge and skills gained in the first two semesters and on prior academic and public service experience. The student is expected to work directly with the host agency to both plan and implement the project. The purpose of the project is to provide enrolled students opportunities to experience some type of public service that is well outside their previous acquaintances, stretching their boundaries of existing knowledge and skills.

CSPS 7600 Capstone Project

Prerequisites: Students should successfully have completed all core courses, including the Practicum and Internship, prior to beginning the Capstone. The capstone program is designed to provide students an opportunity to integrate the knowledge and skills that have been gained from their core and elective courses and the experiences of the Practicum and Internship into a new and more in-depth focus on those professional and leadership skills that will be needed in the students’ fields of future practice and/or specialization. Specifically, the project should tap the knowledge, analytic abilities, writing and presentation skills, and insights students have acquired through study, observation, and involvement in public service. The capstone course will be carried out by completing a public service project that builds on the student’s cumulative knowledge as gained from these earlier experiences. The course is intended only for students who are completing their Master of Public Service degree program and is an alternate to comprehensive examinations or a research thesis.

Communication Sciences and Disorders

University Plaza
Suite 600, 569-3155

Doctor of Philosophy

(With the University of Arkansas for Medical Sciences and the University of Central Arkansas)

The Doctor of Philosophy 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: www.uca.edu/csddpc.

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 Speech Pathology/Audiology

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 8123-8223 Teaching Internship

This course provides doctoral students with supervised experience in academic instruction. 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 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 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 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 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 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-ASP 6083; UCA-SPTH 7321.

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. UAMS-ASP 6033; UCA-SPTH 7320.

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.

Communicative Disorders

Master of Science

(With the University of Arkansas for Medical Sciences)

The Master of Science in Communicative 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 web site at <http://www.ualr.edu/audiology/>.

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 from an accredited institution. Students whose degrees are not in communicative disorders or speech pathology must complete a sequence of 27 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 web site.

Program Requirements

The Master of Science in Communicative Disorders requires a minimum of 47 semester credit hours. Within this 47 hour requirement, students complete either 3 hours of independent research or 6 hours of thesis. Speech-language pathology students must also complete at least three hours of aural rehabilitation course work and be enrolled in a practicum each semester of the program. All students must pass a comprehensive examination during their fifth semester of enrollment in 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 Speech Pathology/Audiology

(UAMS course numbers are in the course description)

AUSP 5366 Language Disorders

(For nonmajors) Prerequisite: AUSP 3360 or the consent of instructor. Language disorders in adults, and children; includes types of language disorders, etiologies, neurological and theoretical correlates, diagnostic procedures and test interpretation, treatment programs.

AUSP 5368 Audiology

(For nonmajors) Prerequisite: AUSP 3362 or consent of instructor. Principles of auditory reception; the hearing mechanism; problems in measuring, evaluating and conserving hearing.

AUSP 7092 Independent Research

Prerequisite: AUSP 7360 Research or individual investigation. 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 516V*.

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 7191-7691 Practicum in Speech and Hearing Therapy

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 505V*.

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 7270 Fluency Disorders

Procedures, theories, therapeutic techniques in treating various types and degrees of stuttering and cluttering. *UAMS course ASP 5122*.

AUSP 7273 Neurogenic Speech Disorders

Prerequisite: AUSP 7366. 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

Prerequisite: AUSP 7366. 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 7276 Voice Disorders

Prerequisite: AUSP 7366. Assessment procedures and rehabilitation techniques for voice disorders in children and adults. Instrumental and behavioral approaches, medical and/or surgical treatment approaches, and team approach to care. *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. *UAMS course ASP 5282*.

AUSP 7294 Augmentative and Alternative Communication

Theoretical issues, design and organization of nonverbal communication systems, considerations for choosing specific devices for particular clients; includes manual, graphic, electronic, mechanical systems and hand-made communication boards. *UAMS course ASP 5042*.

AUSP 7360 Research Methods in Communicative 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 7263 Sociolinguistics

The linguistic structure of language; nature, forms of symbolic behavior; human uses of symbols from various groups, socioeconomic levels, particularly in communication. *UAMS course ASP 5142*.

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 the 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; phonological, morphological, syntactical, semantic language components; language deviation; emphasis on symptomology, etiology, evaluation, therapy. *UAMS course ASP 5113*.

AUSP 7365 Counseling in Communication Disorders

Interpersonal communication problems in conducting small group and one-to-one speech and language therapy; uses case studies, role-playing experience to assist in identifying and improving effectiveness. *UAMS course ASP 5173*.

AUSP 7366 Advanced Anatomy and Physiology for Speech

Investigation of anatomy and physiology of speech and language. Topics include respiration, phonation, articulation, and neurological control of speech and language. Embryological development of the speech structures discussed. *UAMS course ASP 5073*.

AUSP 7367 Infant-Toddler Communication: Development and Assessment

Investigation of prelinguistic/early linguistic communication. 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 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 7385 Pediatric Amplification and Intervention

Prerequisites: AUSP 7380, Basic Diagnostic Audiology. Advanced diagnostic strategies for children with hearing loss, amplification selection, fitting, verification, and validation considerations specific to the pediatric population, and family centered care/management guided by desired communication and educational outcomes. Family advocacy for legislated rights and family support are also included. *UAMS course ASP 5233.*

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 with students presenting case studies demonstrating the basic procedures underlying each model. *UAMS course ASP 5243.*

AUSP 7392 Multicultural Issues

Framework for systematically analyzing cultural similarities and differences. A model to 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 8100-8600 Thesis

Prerequisites: AUSP 7360. Students must take six hours total, one to six hours per semester. *UAMS course ASP 600V.*

Computer Science

EIT 579
569-8130

Master of 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 core and 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: <http://technologize.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)
- Graduate Record Examination (GRE) and, where applicable, Test of English as a Foreign Language (TOEFL) general test section scores
- Completion of deficiency course work

For more information visit <http://technologize.ualr.edu/computerscience/>.

Deficiency Course Work

All students seeking admission to the program must have completed (with a grade of B or better 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.

Program Requirements

Core Course Work

All students must take the following 6 courses (16 credit hours):

- CPSC 7311 Software Engineering
- CPSC 7321 Operating Systems
- CPSC 7331 Computer Architecture
- CPSC 7341 Telecommunications and Networking
- CPSC 7385 Analysis of Algorithms
- CPSC 7190 Graduate Seminar

Students are required to enroll in CPSC 7190 Graduate Seminar in their first semester. Maximum of six (6) graduate hours can be transferred into the graduate degree plan.

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.

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.

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.

Graduate Assistantships

A limited number of graduate assistantships are available. Contact the Computer Science Graduate Coordinator for information.

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study as outlined above
- Successful completion of one of the program options

Courses in Computer Science

CPSC 5360 Computer Security

Prerequisites: Graduate standing. 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 these 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 hours lecture; 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 credit for 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

Prerequisites: 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 5375 Fundamentals of Database Management Systems

Prerequisites: Graduate Standing. This course addresses advanced topics related to the design and efficient implementation of modern database management systems. The topics covered include concurrency and transaction management, database security, query processing, query optimization, physical database storage, and indexing. Three hours lecture; three credit hours. Not open to the students with credit for CPSC 4375.

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

Prerequisites: Graduate Standing. This course addresses the architecture and design of modern microprocessor computers. 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 system design. Three hour lecture; three credit hours. 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 and 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 diagnostics 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 4384.

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

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.

CPSC 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.

CPSC 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 permission of the 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 their 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: Consent of the instructor and graduate coordinator, graduate standing with a science, engineering, or engineering technology degree, and mastery of at least one programming language of C, C++, or Java. Additional prerequisite courses may be necessary. 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 qualified graduates in science, engineering, and engineering technology for the computer science master's program, when approved by the graduate coordinator. The credit of this course is not counted towards the requirements of the master degree. 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 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 clock synchronization; transactional services for shared data.

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 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 8100 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 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.



Conflict Mediation

Ross Hall 120
569-8562

Graduate Certificate

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. 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 web site at <http://ualr.edu/certificates/cmcd/>.

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 such as a master's degree program, you must go through the other program's normal admissions process in addition to being admitted to the Graduate School. Please note that students who enroll in a Law class for the Conflict Mediation program must pay at the Law School tuition rate.

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).

The following courses are required:

- SPCH 7323 Conflict Analysis and Intervention
- SPCH 7324 Negotiation
- LAW 6304 Mediation Seminar

Students may choose 3 electives (9 hours) from the following:

- SOWK 8320 Family Mediation
- PADM 7341 Managing Public Disputes
- TCED 7341 Conflict Management in the Schools
- PSYC 7330 Designing ADR Systems for Organizations
- SPCH 5324 Crisis Communication
- SPCH 7320 Special Topic: Facilitating Multi-Party Conflicts
- Practicum. Students who wish to engage in a practicum should submit a proposal to the program coordinator. The practicum must provide experience and assignments related to conflict mediation, making it possible to assign a grade to the experience. The experience and assignments should be equivalent to a three credit hour graduate course.

Graduation Requirements

Cumulative graduate GPA of at least 3.0 on an approved program of study as outlined above.

Criminal Justice

Ross Hall 513
569-3083

Master of Arts, Master of Science, & Doctor of Philosophy

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 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;
- Understanding the philosophy of criminal justice, emphasizing the importance of individual rights and humane treatment within the structure of the U.S. legal tradition;
- Knowledge of research and research methodologies needed to understand and improve criminal justice and criminology; and
- Understand criminological theories for studying issues of crime and behavior.

For more information, visit the program's web site at the following address:
<http://ualr.edu/criminaljustice/index.php/home/programs/ma/>

Admission Requirements

- 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 900 on the Graduate Record Examination verbal and quantitative sections
- An undergraduate statistics and undergraduate research methods course.
- An oral interview with the program coordinator may be required

Program Requirements

Two options are available for graduation from the MACJ program: thesis and portfolio. Both options requires 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 better 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. Conditional students must earn grades of at least B in the first 12 hours and may not receive a grade of incomplete (I).

Suggested Degree Plan

Fall First Year

CRJU 7301 Pro-seminar
CRJU 7391 Social Statistics
CRJU 7392 Research Methods

Spring First Year

CRJU 7300 Criminological Theory
CRJU 7305 Seminar in Criminal Law
CRJU 7322 Foundations of Policing

Fall Second Year

CRJU 7370 Juvenile Delinquency Problems
Elective 1
Elective 2

Spring Second Year

CRJU 7340 Correctional Administration
CRJU 8301 Portfolio/Thesis Preparation
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 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 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.

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.

For more information, visit the program's web site at <http://ualr.edu/criminaljustice/>

Admission Requirements

Application requirements for admission to the MSCJ program are:

- A baccalaureate degree from an accredited institution is required. Cumulative undergraduate GPA must be at least 2.75.
- Applicants are required to score at least 900 on the verbal and quantitative portions of the GRE, or score at least 400 on the Miller Analogies Test.
- Submission of a written statement that includes current position in the criminal justice system, educational goals, career goals, and how completion of the MSCJ would further career and educational goals.

The MSCJ program is designed for people currently working in the criminal justice system or closely related fields. Applicants not currently working in the criminal justice system may be accepted but only if enrollment limits are not exceeded by applicants currently working in the field.

Program Requirements

There are two options for graduation from the MSCJ program: portfolio and coursework only. The coursework option requires 39 hours of coursework; the portfolio option requires 36 hours, including CRJU 8301 Portfolio Preparation and a written portfolio with oral defense. Required courses establish the foundation of knowledge in criminal justice and include information all students should possess when they graduate. Elective courses allow students to tailor the program to fit their specific needs or interests. Before enrolling in graduate classes, students must consult with the program coordinator to develop a plan of study.

Students can expect to take a maximum of 6 hours a semester, although many students will want to take 3 hours. Students who are not working or who have limited outside requirements may take 9 hours. The program will typically take three years to complete.

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 policy 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 Portfolio Preparation 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 better 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. 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

- CRJU 7301 Pro-seminar
- CRJU 7321 Criminal Justice Organizations and Management
- CRJU 7320 Applied Research and Analysis
- CRJU 7303 Criminal Justice Systems
- CRJU 7323 Ethics in Criminal Justice
- CRJU 7305 Criminal Law
- CRJU 7304 Criminal Justice Policy
- CRJU 8302 Policy Portfolio Preparation (Portfolio option only)
- CRJU 8303 Thesis (Portfolio option only)

Electives (Portfolio Option must take 3 courses; Coursework option must take 6 courses)

- CRJU 7322 Foundations of Policing
- CRJU 7340 Corrections Administration
- CRJU 7370 Juvenile Delinquency Problems
- CRJU 7390 Independent Study
- CRJU 7393 Special Topics (May be repeated for credit)

Students may also take any MACJ course in the classroom as an elective for the MSCJ program. Other graduate courses at UALR may also be taken as electives with the consent of the Graduate Coordinator for MSCJ.

Degree Plan

Fall Semester, Year 1

CRJU 7301 Pro-seminar
CRJU 7321 CJ Organizations and Management

Spring Semester, Year 1

CRJU 7320 Applied Research and Analysis
CRJU 7303 Criminal Justice Systems

Fall Semester, Year 2

CRJU 7323 Ethics in Criminal Justice
Elective

Spring Semester, Year 2

CRJU 7305 Criminal Law
Elective

Fall Semester, Year 3

CRJU 7304 Criminal Justice Policy
Elective

Spring Semester, Year 3

CRJU 8302 Policy Thesis Preparation
CRJU 8303 Thesis

Doctor of Philosophy in Criminal Justice

Students in the PhD program in Criminal Justice are guided through an intense, supervised course of study of the 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. Coursework and mentoring will provide students with other aspects of professional development, including teaching and pedagogy, service 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: a) research design and statistical analysis, b) crime and justice, c) electives and specialization, d) research practicum, and e) 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 on-line.

Admission Requirements

Applicants must meet all admission standards of the UALR Graduate School. Students will only be admitted in the fall semester each year.

- Applicants will be required to score at least 1000 on the combined verbal and quantitative portions and at least 4 on the written portion of the Graduate Record Exam (GRE).
- Applicants must have a cumulative GPA in their master's program of at least 3.5.
- International students must take the TOEFL exam and score a 550 on the paper-based test, 213 on the computer-based version, or 79 on the Internet-based version.
- Admission to the doctoral program will require a master's degree in criminology/criminal justice or a closely related field. Applicants from other disciplines may be admitted after taking one or more courses in the MACJ program to establish knowledge in criminal justice issues. Three courses in statistics and research methods at the master's level will also be required. Courses may be taken in the MACJ program to remove this deficiency after being admitted to the program but before taking statistics or research methods courses at the doctoral-level.
- Applicants with only a Juris Doctorate (no master's degree) will not be directly admitted to the program but will be required to take MACJ courses in research methods, statistics, and criminal justice (police, corrections, criminological theory).
- 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 a PhD in criminal justice, and a statement of the applicants 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 PhD. 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.
- Finally, two professional letters of recommendation (one of which must come from a graduate-level teacher) are required.

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. The doctoral admissions committee may conditionally admit a student for one semester 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: 1) continue conditional status, 2) grant full admission to the doctoral program, or 3) dismiss the student from the doctoral program.

Student Advising

The Doctoral Coordinator will be the primary contact person for all PhD 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 counseling and advising the student concerning his or her 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.

Financial Assistance

All full-time doctoral students will be receive some form of financial assistance. 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. Any full-time doctoral students not receiving a fellowship or assistantship will receive tuition-only assistantships. 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.

Coursework

The program will include both day and night classes. Some of the classes specifically for doctoral students will be taught during the day. Courses that are 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 Courses (12 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 the following 12 hours:

- PADM 7315, Research Methods: Provides an understanding of methods for conducting empirical research. Topics include the process of research; design of studies; the relationship between theory, research, and statistics; and ethical issues in research.
- STAT 7340, Advanced Statistical Method I: Focuses on statistics that address single and multiple outcome measures. Statistics addressed include bivariate and multivariate models.
- STAT 7341 Advanced Statistical Method II: Focuses on more advanced statistical procedures such as Ordinary Least Squares Regression, Hierarchical Linear Modeling, Factor Analysis, and Structural Equation Modeling.
- CRJU 8312, Secondary Data Set Management and Analysis: 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, recoding variables, and preparing data sets for analysis with SPSS.

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: Provides a foundation for the study of crime and justice and an introduction to the role of PhDs 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 study of topics in other courses in the doctoral program.
- 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 8321, 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.
- Students may also take courses from CRJU 7393, Special Topics to fulfill this requirement.

Electives and Specializations (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 first specialization is a criminal justice generalist. The focus of the specialization is obtaining a broad base of advanced knowledge about criminology and criminal justice. Students selecting this specialization will take the

all of the courses from the Crime and Justice Core and will then take 9 hours from CRJU 7393 Special Topics in Criminal Justice

The second specialization is in crime related to the environment of neighborhoods and cities. This specialization 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 must take 9 hours from the following courses:

- 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.
- PADM 7345, Urban Management and Community Change: Introduces students to the study of cities as it relates to social and public policy. The course draws upon the social sciences to answer questions such as how cities have changed over time, the characteristics of cities and their populations, how cities are governed, and how policy decisions influence city growth or decline.
- CRJU 8332, Theories of Neighborhoods and Crime: Addresses criminological theories related to the urban environment, including studies from the 1800s, social disorganization research, human/social ecology, environmental criminology, and the nature of urban 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.

Students wishing to further focus on statistical analysis may choose to obtain a Graduate Certificate in Applied Statistics as a specialization. Six of the fifteen hours required for the certificate are core requirements for the PhD in Criminal Justice. The other required course for the certificate is STAT 7342, Introduction to SAS. The remaining six hours to satisfy this specialization and the Certificate in Applied Statistics will be decided in consultation with the Doctoral Coordinator and the Coordinator of the Applied Statistics program.

Students with special interests may also select a tailored specialization. The student will work with his or her dissertation committee and the Doctoral Coordinator in selecting courses for this specialization. These electives may be taken from any of the courses offered in the Department of Criminal Justice. Students may take MACJ courses with the permission of the professor as long as the student did not previously take the course. In limited circumstances, students may take courses outside the Department if the student receives permission from the Doctoral Coordinator.

Practicum

- CRJU 8383 Research Practicum (12 hours): 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. Students at this stage of the program will either obtain funding (by writing grant proposals) to conduct research related to their potential dissertation

topic, work on a grant already obtained by a faculty member, or work as an intern at a government or public organization (e.g. Department of Correction, City of Little Rock, Arkansas Advocates for Children and Families). The goals of this portion of the program are: 1) to give students experience in writing grant proposals and obtaining funding, 2) to give students experience in designing research and putting the research into practice, 3) to give students practical experience in conducting research, and 4) to build on student knowledge in analysis and research in preparation for completing their dissertation. To demonstrate the ability to obtain funding, students will be required to either obtain funding by writing a grant proposal or complete three grant proposals in attempts to obtain funding. As a part of the preparation for this requirement, students will also be required to attend three, day-long grant workshops to increase grant writing knowledge and ability.

Dissertation

- CRJU 8193/8393 Dissertation (12 hours): Students must complete a minimum of 12 hours of dissertation. Students may enroll in dissertation hours at any time after successful completion of comprehensive exams, but must enroll in 3 hours of dissertation in the semester when the dissertation is defended. Students must enroll in at least 1 hour of dissertation each semester (or enroll in another doctoral class) to remain active in the program. The dissertation will address a particular issue in crime, criminology, or criminal justice. Students are expected to obtain funding to complete their dissertation. The dissertation must be of a content and quality worthy of publication in relevant journals or completion of a scholarly book. The dissertation will be guided by the student's dissertation committee.

Comprehensive Examinations and Dissertation

No earlier than the final semester of enrollment in which the core curriculum is completed, students will be required to take comprehensive examinations. The comprehensive examinations are designed to test the ability of students to undertake independent research in a particular area and publish the results. Students will work with their advisory/dissertation committee to submit two manuscripts for publication. The manuscripts must be based on independent research sufficient to contribute to the literature in the field. The student must receive a satisfactory rating from the committee, indicating the manuscripts are ready for submission to a journal. The manuscripts must be submitted to a journal in the field, but it is not a requirement that they be accepted for publication. Upon successful completion of the comprehensive examination, the student will be granted candidacy status. Students will not be permitted to enroll for dissertation credit until they have received candidacy status. If a student fails comprehensive exams, he or she will be allowed one retake. Failure on the retake will result in dismissal from the program; but students may petition for one additional attempt. No attempts beyond the third will be allowed.

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 faculty, 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 findings and conclusions. 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 studied 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 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 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 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 a topic; research concerning policies of agencies, and qualitative/quantitative research methodologies. The product of the course will be a completed 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 PhDs 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 study 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, recoding 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 8321 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 8383 Research Practicum

Course goals are to: 1) give students experience in writing grant proposals and obtaining funding, 2) give students experience in designing research and putting research into 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.

Education Programs

*Dickinson Hall, 323
569-3113*

The UALR College of Education offers a wide variety of programs leading to Graduate Certificates, Master of Arts, Master of Education, Specialist, and Doctoral degrees in Education. UALR Graduate Education degree programs include:

Graduate Certificate Programs

Graduate Certificate in Counseling: Rehabilitation Counseling
Graduate Certificate in Gifted and Talented Education
Graduate Certificate in Orientation and Mobility of the Blind
Graduate Certificate in Reading/Literacy Coach
Graduate Certificate in Teaching Advanced Placement

Master of Arts

Counseling: Rehabilitation Counseling
Higher Education:
 College Student Affairs
 Two-year College Teaching
Rehabilitation of the Blind
 Emphasis areas:
 Orientation and Mobility
 Rehabilitation Teaching

Master of Education

Adult Education
Counselor Education
Early Childhood Education
Educational Administration and Supervision
Learning Systems Technology
Middle Childhood Education
Reading Education
Secondary Education
Special Education
 Emphasis areas:
 Early Childhood Special Education (birth-grade 4)
 Instructional Specialist 4-12
Teaching the Gifted and Talented

Educational Specialist

Educational Administration and Supervision
Reading

Doctor of Education

Educational Administration and Supervision (Emphasis areas):

Educational Administration and Supervision
Gifted Education
Special Education

Higher Education (Emphasis areas):

Administration
Faculty Leadership
Student Affairs Administration
Two-year College Leadership

Doctor of Philosophy

Reading

Accreditation

All teacher and school personnel preparation programs in the UALR College of Education are accredited by the National Council for Accreditation of Teacher Education (NCATE). The Master of Arts in Rehabilitation Counseling is accredited by the Commission on Rehabilitation Education (CORE). The Master of Arts in Rehabilitation of the Blind is approved by the Association for Educational and Rehabilitation of the Blind and Visually Impaired (AER).

Title II

See the "Title II" section in this Catalog for information about the College of Education's institutional report card for data on student test performance in teacher preparation programs for 2004-2005. Visit the College of Education's website at <http://ualr.edu/coe/index.php/home/assessment-and-accreditation/> for current and past institutional report cards.

Admissions Procedures

Pending Status for Admission to a Program/Program of Study

All programs in the College of Education have specific admission requirements. Often, students wish to enroll in course work before they have submitted all formal admission materials to the Graduate School. The status that permits students to enroll in six hours before formal admission to a program/program of study in the College of Education is called "pending."

In order for students to obtain pending status, they must: apply to a program/program of study in the College of Education; supply recent transcripts to the Graduate School; possess a bachelor's degree or a degree beyond the bachelor's degree from a regionally-accredited institution; and have a grade point average that meets either conditional or regular admission status for the specific program/ program of study in the College of Education.

A student is allowed pending status for one semester only. During that semester, all documentation required for full admission to the graduate program/program of study in Education must be submitted to the UALR Graduate School. Applicants who fail to provide all the required documentation or whose qualifications fail to meet the standards for regular or conditional admission to a program/program of study will not be permitted to enroll in courses after the semester of pending status ends.

Please see Regular or Conditional Admission as well as individual programs for more specific information regarding admission to programs/programs of study in the College of Education.

Regular or Conditional Admission

For specific admission requirements for each program, please see individual programs in the College.

Note: In order to be admissible to programs in the College, students, in addition to satisfying individual program requirements, must be in good standing with the Graduate School at UALR.

Program Courses

In addition to individual program courses, most degree programs in the College of Education require one or more of the Educational Foundations and Teacher Education courses listed below. For a listing and descriptions of a specific program's courses, refer to that program's section in this catalog.

Retention in Graduate Programs

Once admitted to graduate study in the Graduate School and to a program (or program of study) in the College of Education, students must meet specific program-level requirements in order to remain in the program/program of study. Please see individual programs for requirements regarding grades, grade point averages, professional dispositions, and other program-related specifics pertaining to retention.

Courses in Educational Foundations

EDFN 7142, 7242, 7342 Seminar

Topics related to educational foundations concepts. Offered on demand.

EDFN 7143, 7243, 7343 Workshop

Hands-on experiences related to education; topics vary. Offered on demand.

EDFN 7302 Introduction to Program Evaluation

Covers select models of summative and formative evaluation with a focus on social science methods of inquiry for the purpose of evaluating programs in education, government and non-profit agencies, the health professions, and the military. Topics include organizational goals, models of program evaluation, accountability evidence, research methods and techniques, data-driven decisions, justifying conclusions, and report writing with clarity. Students will design a program evaluation that attends to diversity, sensitivity, and has value to a broad range of stakeholders.

EDFN 7303 Introduction to Educational Research

Prerequisite: graduate standing. Introduction to applied research in education across the major quantitative, qualitative, and action research traditions. Focus is on understanding the research process and its integrated components and evaluating published research reports from the perspective of a critical consumer. Topics include scientific reasoning, types of variables and hypotheses; sampling; data collection and instrumentation; control procedures; common experimental, non-experimental, qualitative, and mixed methods research designs; data analysis; and research critiques and proposals.

EDFN 7304 Basic Statistics

Introduction to descriptive and inferential statistics used in education and data-driven decision making. Topics include commonly used descriptive statistics, exploratory data analysis, standardized scores, inferential reasoning, hypothesis testing, and parametric and nonparametric procedures and their assumptions including t-tests, one-way analysis of variance, correlation coefficients, bivariate regression, and chi-square. Emphasis is on understanding the logical bases of statistical tests of significance, selecting appropriate data analysis techniques, and using statistical software and interpreting its output.

EDFN 7307 History and Philosophy of Education

Historical, philosophical factors and trends; their effect on American education.

EDFN 7308 Multicultural Education Trends and Issues

Multicultural education movement in the U.S., selected western industrial nations; includes historical development, goals, implementation.

EDFN 7313 Learning Theories and Instructional Applications

Major theories of human learning and psychological principles of learning for instruction, including systematic instructional design and models of effective instruction; contemporary issues with implications for practice.

EDFN 7314 Cognition and Instruction

Prerequisite: EDFN 7313. Exploration of recent developments in cognition and the implications for instructional practices resulting from theory and research in cognitive psychology.

EDFN 7320 Advanced Educational Psychology

Prerequisite: EDFN 7313. This course addresses a variety of contemporary issues that affect academic performance. Topics are organized around the traditional categories of learning, identity development, motivation, discipline, and assessment. Students study different theoretical approaches to articulate and ultimately defend a personal theory of learning and teaching.

EDFN 7330 Human Development

Prerequisite: graduate standing. A lifespan perspective that addresses cognitive, physical, social and emotional development from birth through late adulthood. Special emphasis on developmental factors that effect schooling (P-12).

EDFN 7370 Educational Assessment

Assessment, evaluation; role of measurement in education and human service agencies; psychometric properties of norm-referenced and criterion-referenced tests; construction of test items with specialized considerations for atypical populations such as young children, culturally different, and those with exceptionalities; use and interpretation of standardized tests in educational settings.

EDFN 7373 Qualitative Research Methods

Prerequisite: EDFN 7303. This course has primarily a twofold purpose: to expose students to the knowledge base, tradition, and theory of qualitative research. While introductory in nature, this course allows students to explore theoretical underpinnings as well as consider methodological strategies in preparation for designing a research project and writing it up for presentation.

EDFN 8301 Instructional Research and Data Management

Prerequisite: EDFN 7303. Application of research methods and data analysis techniques to the study of instruction and reflective practice. Topics include models of quantitative, qualitative, and mixed methods research; the application of research designs in the classroom; control procedures; evaluation research; and data analysis including statistical software and approaches to analyzing qualitative data. Note: This is a project-based course and requires a research proposal or completed action research.

EDFN 8305 Intermediate Statistics

Prerequisite: EDFN 7304. A second course in statistics that covers the more complex analyses used in education and data-driven decision making. Topics include simple and multiple linear regression, one- and two-factor fixed factor analysis of variance, random and mixed model analysis of variance, randomized block, hierarchical analysis of variance, and analysis of covariance. Emphasis is on further understanding the logical bases of statistical tests of significance, selecting appropriate data analysis techniques, and using statistical software and interpreting its output.

EDFN 8306 Advanced Educational Research

Prerequisites: EDFN 7303, EDFN 7304. A second course in quantitative, qualitative and mixed methods research designs commonly used in education. Topics include the philosophy of science, research problems, control procedures, sampling designs, measurement procedures, data collection strategies, and approaches to data analysis. Focus is on complex designs across the research traditions, writing critical reviews, and writing research proposals that include sound methodology.

EDFN 8308 Advanced Statistics

Prerequisites: EDFN 8305. An advanced course in statistics that covers complex analyses used in education and data-driven decision making. Topics include multivariate analysis of variance, loglinear analysis, discriminate function, canonical correlation, and an introduction to structural equation modeling and confirmatory factor analysis. Emphasis is placed on providing solid skill in the use of the major statistical software packages for the purposes of program evaluation or other advanced analysis requirements.

EDFN 8310 Applied Measurement in Research and Analysis

Prerequisite: EDFN 8305 and 8306. Theoretical bases of measurement in education, applied measurement techniques, and practical approaches to the design and analysis of data collection instruments. Topics include psychometrics, scale construction, and instrument design and development.

EDFN 8383 Advanced Qualitative Research Methods

Prerequisite: EDFN 7373. A second course that is designed to provide students with an in-depth exploration into the philosophy, theory and practice of naturalistic inquiry. Students will explore the philosophical foundation of post modern research. Furthermore, students will study a variety of qualitative research design, data collection, data analysis, and report writing methods. Students will conduct a research study and receive feedback on the study's design specific to a single tradition of qualitative inquiry, on data collection, on data analysis, and on drafting the narrative.

Courses in Teacher Education

TCED 5100, 5200, 5300 Workshop

Prerequisite: consent of instructor. Exploration of areas of interest, preparation of educational materials. Offered on demand

TCED 7149, 7249, 7349 Independent Study

Prerequisite: consent of instructor. Individual problems in student's chosen field. Up to three hours may count toward degree. Offered on demand.

TCED 7303 Reflective Teaching

For certified secondary teachers in the advanced track MEd. Students learn to use tools of reflective teaching to assess their own level of competence and to design learning experiences to improve their own classroom teaching. Students will analyze various national models for assessment of master teachers and will examine recent research in education which should affect classroom practice. With the guidance of the instructor they will demonstrate their current level of competence in a portfolio and will select a committee to develop an individualized degree plan.

TCED 7321 Teaching Culturally Different Children

Problem, potential of children from culturally different backgrounds; preschool, elementary programs designed to meet their needs; guest lecturers are a basic part of the program.

TCED 7327 Contemporary Curriculum Design

(For teachers, supervisors, and administrators in developing clear concepts about all children and their educational programs.) Philosophy, administration, techniques of curriculum design; includes participation in development of a culturally pluralistic curriculum. Offered in spring.

TCED 7333 Mentoring and Coaching Teachers

This course prepares teachers to work as mentors/coaches of preservice and/or inservice teachers and as leaders in professional development.

TCED 7337 Life Adjustment for Persons with Severe Disabilities

Overview of the life adjustments encountered by older adolescents and young adults with severe disabilities and their families. Concentrations include philosophies of service delivery, residential and occupational alternatives for adults with severe disabilities, social needs, and legal rights and responsibilities. Emphasizes community-based services for individuals with severe disabilities.

TCED 7341 Conflict Management in the Schools

Conflict management issues and strategies in the schools. School-community disputes, faculty relations, parental conflicts, and student conflicts are addressed. Participants are trained in a variety of approaches to school safety, school community building, and methods of resolving conflict including peer mediation. Diversity issues discussed throughout the course.

TCED 7600 Science, Mathematics, and Reading: An Interdisciplinary Approach K-4

Prerequisite: consent of instructor. The learning of science, mathematics, and reading as active, integrated, constructive processes involving experimentation, investigation, communication, reasoning, and problem solving; shows connections and relevant applications of these disciplines; goals include helping teachers extend content learning, helping teachers create successful learning environments for every student through use of manipulatives, calculators, science equipment, and various learning strategies; and the provision of access to appropriate materials, equipment, and technology.

TCED 8115-8118 Studies Affecting Elementary Education

Current research, trends in elementary education; emphasis on interdisciplinary studies; topics reviewed regularly. Offered in fall and summer.

TCED 8150-8650 Specialist Thesis

Preparation of the specialist thesis. Offered on demand.

TCED 8300, 8600 Thesis

Prerequisite: 24 graduate hours. Preparation of master's thesis. Offered on demand.

TCED 8301 Curriculum Design and Evaluation

Historical, current curriculum design models; needs assessment, process, product evaluation of curriculum development. Offered in fall.

TCED 8310 Professional Experience

Professional experience in selected school district, state agency, or university sites related to student's long-term professional goals; requires a paper related to the experience. Offered in fall and spring.

Adult Education

Dickinson Hall, 300G
569-8937

Master of 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 adult basic education, general adult education, adult literacy, volunteer training, and in-services education within a variety of organizations, including community colleges, vocational schools, business and industry, and government. Graduates of UALR's program find positions as learning facilitators, training directors, administrators, and curriculum specialists in adult education programs.

The Master of Education in Adult Education is a professional development experience. Students are 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, and meeting the needs of professionals in any type of lifelong learning environment who wish to continue their educations 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 http://www.ualr.edu/coeddept/care/adult_education.html.

Admissions Requirements

All applicants for both regular and conditional admission statuses must have:

- Favorable recommendations from faculty members in the program.

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 2.5, 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 adult education degree requires 36 credit hours, including 9 education core hours, 18 to 21 adult education hours, 6 to 9 approved elective hours, and a comprehensive examination. Up to 6 workshop hours may be applied to program requirements.

Core Area Courses

- EDFN 7303 Introduction to Research and Its Applications
- EDFN 7370 Educational Assessment
- LSTE 7303 Technology and Instruction in Society

Required Courses

- ADED 5301 Psychology of Adult Learning
- ADED 5304 Methods and Materials in Adult Education
- ADED 7301 Foundations of Adult Education

- ADED 7302 Organization and Administration of Adult Education
- ADED 7303 Program Planning in Adult Education
- ADED 7304 Teaching Reading to Adults

Graduation Requirements

- Successful completion of an approved program of study
- Passing the comprehensive exam

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 learner. Offered on demand.

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.

Counseling: Rehabilitation Counseling

Dickinson Hall, 419G
569-3428

Master of Arts and Post Master's Certificate

The Master of Arts in Counseling: Rehabilitation Counseling (COUN) is a 54 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 an 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 web site at <http://ualr.edu/ma/COUN/>. With additional course work, graduates of this program should qualify for licensure as professional counselors in Arkansas.

Admissions 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 3.0 (3.25 in the last 60 hours)

or

- If the student's undergraduate GPA is below a 3.00 overall or 3.25 in the last 60 hours, minimum scores of 440 on the Verbal and 560 on the Quantitative scales of the Graduate Record Exam (GRE) 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 better in each course taken.

Note: "Condition" means that the student must make a B or better 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.

Program Requirements

The 54 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 (12 hours)

- CNSL 7301 Theoretical Approaches to Counseling
- CNSL 7302 Techniques for Counseling Interviews
- CNSL 7307 Theories and Techniques for Group Counseling
- CNSL 7308 Cross Cultural Counseling

Foundations/Elective Courses (9 hours)

- EDFN 7303 Introduction to Educational Research (Required)
- COUN7368 Foundations of Substance Abuse (Elective)
- COUN7369 Introduction to Family Counseling (Elective)
- COUN7370 Psychopharmacology for Counselors (Elective)

Students are required to take six 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 on 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 better. 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 Theoretical Approaches to Counseling
- 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 an 18 semester-hour graduate certificate program aimed at permitting employed/experienced rehabilitation counselors and other rehabilitation professionals to obtain national certification. The graduate certificate is offered online and admits both full- and part-time students.

The curriculum has three components:

- Counseling,
- Rehabilitation, and
- Research courses.

Admission Requirements for the Certificate

- 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;
- For candidates who will be seeking to sit for the Certified Rehabilitation Counselor Exam, the CRC Commission requires a master's degree in counseling and three years' work experience as a rehabilitation counselor verified in writing by your employer. (One year of employment must be under the supervision of a Certified Rehabilitation Counselor in order to be able to sit for the national examination).

Transfer Credit

At least 12 semester hours of this graduate certificate program must be taken at UALR. Up to 6 semester hours can be transferred from other accredited graduate programs.

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 7362, COUN 7357 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: COUN 7360, CNSL 7301 and CNSL 7302 or consent of the instructor. 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.

COUN7368 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.

COUN7369 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.

COUN7370 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 onsite 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.

Counselor Education

Dickinson Hall, 4th
Floor, 569-3267

Master of 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 web site at <http://www.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 Biographical Data Form
- Current resume

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 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.

Licensure

Students seeking school counselor licensure in Arkansas are required to have a valid Arkansas teacher license and two years of full-time teaching experience for an Arkansas license. 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 48 credit hours, including 6 to 12 education core hours, 24 MEd counseling core hours, 9 supervised practice hours, SPED 7301 Foundations of Special Education, and 6 to 9 approved elective hours. A student's progress is evaluated after 12 semester hours, and the program coordinator 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 or thesis. 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. The thesis option is available to students wanting to pursue a research interest. Procedures outlined in the *UALR Dissertation and Thesis Guide* must be followed.

Education Core Area Courses

- EDFN 7303 Introduction to Educational Research
- EDFN 7330 Human Development
- LSTE 7303 Technology and Instruction in Society

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 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 multiethnic 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 Theoretical Approaches to Counseling

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 better 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 better 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 better 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 better 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.

Early Childhood Education

Dickinson Hall, 302
569-3124

Master of Education

The Master of Education in the Early Childhood Education (ECED) allows students to develop an individualized plan of study to pursue their educational and career goals. The curriculum helps teachers develop teaching skills in their areas of interest. For more information about this program visit the web site at <http://www.ualr.edu/coedep/teached/earlyce.htm>.

Admission Requirements

Regular and Conditional Admission

All applicants must have:

- A valid teacher license or a degree in early childhood education or related field, and
- Favorable recommendations from program faculty.

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 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

Curriculum Leadership Track

The Curriculum Leadership Track of the Master's in Early Childhood Education is designed to prepare licensed teachers for positions of curriculum leadership in schools through advanced course work in curriculum content. Preparation in curriculum content includes planning, teaching and assessment, and advanced theory in teaching through applied classroom-based research, advanced understanding of classroom practice, and mentoring and supervising in the classroom environment.

Requirements for the degree are a minimum of 36 hours.

Required Courses

Research

- EDFN 7303 Introduction to Research
- ECED 7346 Project/Thesis Development, *or*
- TCED 7349 Independent Study
- ECED 7347 Project, *or*
- TCED 8300 Thesis

Curriculum Content

- READ 7397 Creating Literate Environments
- ECED 7307 Teaching Mathematics in Early Childhood Education
- ECED 7344 Inquiry Science

Advanced Theory and Practice in Teaching

- EDFN 7320 Advanced Developmental Psychology
- TCED 7303 Reflective Teaching

- ECED 7301 Early Childhood Programs and Curriculum: History and Theories
- ECED 7345 Classroom Discourse: The Language of Teaching and Learning
- TCED 7333 Mentoring and Supervising Teachers
- ECED 7304 Early Childhood Education: Practicum/Internship

Note: Technology skills and requirements are integrated throughout the entire program.

Initial Licensure Track

The Initial Licensure Track of the Master's in Early Childhood Education is designed to prepare students with an undergraduate degree in a field other than education for recommendation for licensure in Early Childhood Education in Arkansas. The track embodies the College of Education's conceptual framework, the Arkansas Department of Education's principles for teacher licensure, and the standards of the early childhood professional association of the National Association for the Education of Young Children. It is grounded in current theory and practice in the field.

Requirements for the degree are a minimum of 37 hours.

Required Courses

Introduction to the Field

- EDFN 7330 Human Development
- EDFN 7303 Introduction to Research, or SCED 7304 Action Research Project
- ECED 7302 Guiding Young Children and Connecting with Diverse Families and Communities
- READ 7350 Early Childhood Literacy Instruction and Assessment
- ECED 7202 Field Experience in Early Childhood

Advanced Curriculum and Pedagogy in Early Childhood Education

- READ 7351 Foundations of Teaching Reading
- ECED 7307 Teaching Mathematics in Early Childhood Education
- MCED 7328 Science Education
- ECED 7303 Integrated Methods in Social Studies and the Arts
- ECED 7201 Teaching Physical Education, Health, Safety, and Nutrition
- SPED 5313 Early Childhood Special Education Assessment
- ECED 7308 Advanced Internship Seminar: Strategies in Assessment Planning, Teaching, and Professionalism
- ECED 7304 Early Childhood Education: Practicum/Internship

Note: Technology skills and requirements are integrated throughout the entire program.

Courses in Early Childhood Education

ECED 7100, 7200, 7300 Early Childhood Education Workshop
Hands-on experiences on various topics. Offered in fall and spring.

ECED 7201 Teaching Physical Education, Health, Safety, and Nutrition in Early Childhood.

Prerequisite: EDFN 7330 Human Development or its equivalent.
This course focuses on the study of physical education, health, safety, and nutritional issues related to children pre-K through 4th grades. Development of curriculum units of physical education, health, safety, and nutrition will be planned, implemented, and evaluated.

ECED 7202 Field Experience in Early Childhood

Prerequisites: Admission to the Early Childhood Master of Education Initial Licensure Program and EDFN 7330 Human Development or its equivalent. Co-requisite: ECED 7302 Guiding Young Children and Connecting with Diverse Families and Communities. This field experience will acquaint students with a variety of early childhood programs, teaching opportunities, professional organizations, publications, trends, contemporary problems, parent involvement, and family relationships. Students will be oriented to the structure of a school district, the school, and the classroom setting. Students will observe and assist classroom teachers and complete assigned large group, small group, and one-on-one teaching assignments. Students will complete 13 full days in the classroom as well as an orientation before beginning the placement.

ECED 7302 Guiding Young Children and Connecting with Diverse Families and Communities

Prerequisites: Admission to the Early Childhood Master of Education Initial Licensure Program and EDFN 7330 Human Development or its equivalent. Co-requisite: ECED 7202 Field Experience in Early Childhood. Students will learn the theoretical base for guiding young children towards becoming cooperative, contributing, self-disciplined, and critical-minded participants in schools. Students will learn how to design and maintain effective learning environments, how to plan a range of activities for children from diverse backgrounds, and how to use basic guidance and interaction strategies to guide children through activities effectively. The understanding of guidance of young children will be developed within the context of family-teacher partnerships and the supporting role of community. Students will learn skills for building partnerships and for advocating for families and children in diverse communities. Students' learning will include study of personal and professional dispositions necessary to effective relationships with diverse families and communities.

ECED 7303 Integrated Methods in Social Studies and the Arts

Prerequisite: EDFN 7330 Human Development or its equivalent.
This course provides the opportunity for students to integrate social studies and arts curricula from a variety of historical and current perspectives, within the context of professional, state, and local standards. Students integrate knowledge from the six disciplines of social studies: history, anthropology, sociology, political science, geography, and economics with music, dance, theater, movement, and visual arts. Students will plan, implement, and evaluate integrated social studies and art experiences for children while considering growth patterns of individual children with diverse backgrounds and different learning abilities and styles.

ECED 7304 Early Childhood Education: Practicum/Internship in Early Childhood

Prerequisites: Early Childhood Education 5301, consent of advisor.
Practical experience in selected early childhood, kindergarten, or agency sites; requires related term paper or project. Offered in fall and summer.

ECED 7306 Administration and Supervision of Programs for Young Children

Supervision principles for public, private nursery schools, kindergartens, day care centers, federally funded programs; includes licensing standards, financing equipment, staffing, parent programs, program components; guest lecturers, field visits. Offered in summer II.

ECED 7307 Teaching Mathematics in Early Childhood Education

Mathematics development programs, methods, materials, teaching strategies, evaluation techniques appropriate for young children; planning, administering a program appropriate for early childhood.

ECED 7308 Advanced Internship Seminar: Strategies in Assessment Planning, Teaching, and Professionalism.

Prerequisites: ECED 7201, ECED 7202, ECED 7302, ECED 7303, ECED 7307. *Co-requisite:* ECED 7304 *Early Childhood Education: Practicum/Internship.* The seminar provides an opportunity for students to design educational strategies and assessments that are developmentally appropriate and learner centered. Emphasis will be on adaptation of curriculum to diverse learners.

ECED 7342 Parent-Teacher Collaboration

Skills for working with parents; rationale for parent involvement in education; practical experience in specific techniques for teaching parents, overcoming resistance to participation in the educative process; requires a project involving parents. Offered on demand.

ECED 7343 Families, Early Development, and Disabilities

Theoretical approaches to families, factors that affect family functioning, family's influence on early child development; strategies for assessing family strengths, needs; techniques for communicating, collaborating with families; emphasis on impact of children with disabilities on families.

ECED 7344 Inquiry Science

Students will increase knowledge of science and concepts and process skills essential for science literacy for PreK-4 children. Emphases will be placed on teaching strategies and theoretical bases for inquiry science and the use of technology to enhance curriculum.

ECED 7345 Classroom Discourse: The Language of Teaching and Learning

This course provides an introduction to the field of classroom discourse. It begins with examining the concept of discourse grounded in current research in the fields of sociolinguistics and semantics. It explores teaching understood as a study in interaction thereby making classroom discourse the language of teaching and learning. It applies these basic concepts to an understanding of cross-cultural communication and how classroom discourse is the means by which classroom learning environments are established and maintained, in particular the difference between guidance and classroom management approaches. It will also address connections between discourse at home and in the classroom. Students will have opportunities through assignments to explore how understanding classroom discourse aids in understanding teaching across all subject areas.

ECED 7346 Project Development in Early Childhood Education

This course provides a framework for development of an individual student's culminating project in M.Ed. in Early Childhood Education. Students will develop a topic, a bibliography, and methods for pursuing the project. Students will write up the background of the project identifying the topic, outlining the professional and academic material that forms the background to the topic and describing the methods that will be used.

ECED 7347 Project in Early Childhood Education

This course provides a framework for completion of an individual student's culminating project in the M.Ed. in Early Childhood Education. Students will complete a written paper documenting the integration of professional and academic material from the field that is background to the project, the details of how the project was carried out, and the conclusions and implication of the project. The student will make an oral presentation of the project to the committee and present a plan for dissemination that has a clear focus around advocacy.

Educational Administration and Supervision

Dickinson Hall, 419
569-3267

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.

Master of Education

The MEd is a practice-oriented, theory-based program. Its emphasis is on public education in Arkansas, but courses may also apply to private education and general education in the United States. For more information about the master's degree, visit: <http://ualr.edu/med/edas>

Educational Specialist

The EdS is an advanced graduate experience for professional educators who wish to specialize in some aspect of educational administration and supervision or to upgrade their skills and licensure. Individuals may seek building, curriculum director, program coordinator, or superintendency licensure. Specialization and research emphases are offered, and students may individualize their courses of study based on their goals and professional aspirations or may explore specific interests such as, gifted and talented education, special education, curriculum or an academic content area. Visit <http://ualr.edu/eds/edas> for more information.

Doctor of Education

The EdD program offers extensive field knowledge and research skills to prepare candidates as administrators or supervisors in pre-collegiate schools and school districts or for higher education positions as professors or administrators. Additionally, a doctoral student may take the option of having a co-emphasis in Special Education Administration or Gifted and Talented Administration. Candidates taking advantage of this option must have a graduate degree in the field of co-emphasis.

The program provides preparation for both instructional and non-instructional positions. Applicants should have substantial experience in leadership positions and an interest in conducting research in administration. The EdD program also prepares its students as prospective educational researchers who may seek teaching and research positions at higher education institutions. Doctoral program graduates demonstrate the ability to conduct analytical inquiry and independent research activities that include formulation, design, and investigation of major intellectual problems that make original contributions to the knowledge base in the field of educational administration and supervision.

Students in Educational Administration and Supervision programs will not be allowed to change programs until they have completed the program in which they are currently enrolled. This means that students who select the licensure track will be eligible for consideration for admission to the Educational Specialist or Doctoral Programs only after completing the licensure track. Likewise, students admitted into the Educational Specialist Program will be eligible for admission into the Doctoral program only upon completion of the Educational Specialist degree.

For more information about the doctoral program, visit the following web site: <http://www.ualr.edu/edd/edas>

Master of Education

Admission Requirements

All applicants must have:

- A valid teacher license. (Arkansas or other state)
- Favorable recommendations from faculty in the program
- Completed Online College of Education Biographical Data Form
- At least two years teaching experience (Please note: Four years of teaching experience are 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

and

- Combined score of 850 on GRE verbal and quantitative
- 4.5 on the writing portion of the GRE

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 370 on the Verbal Scale
- Graduate Record Exam (GRE) score of at least 430 on the Quantitative Scale
- Graduate Record Exam (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

MEd Program Requirements

The MEd course of study is offered in cohort format commencing the Fall semester of each year. The size of the cohort is limited to 25 students.

The program of study 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 building administrator. 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. Failure to progress satisfactorily will result in the removal of the candidate from the program.

Required Course Work

- EDAS 7309 Building Coalitions with School and Community
- EDAS 7300 Foundations of Educational Administration
- EDAS 7301 Administration & Assessment

- EDAS 7302 School Finance and Human Resource Allocation
- EDAS 7303 Educational Law and Ethics
- EDAS 7304 Supervision of Learning Service
- EDAS 7305 The Principalship
- EDAS 7310 Facilitating School Improvements
- EDFN 7303 Introduction to Educational Research
- EDFN 7370 Educational Assessment
- Program co-requisite: SPED 4301 The Exceptional Learner (or equiv)

Building Level Internship

- EDAS 7380 Internship (1st Semester)
- EDAS 7380 Internship (2nd Semester)

MEd Graduation Requirements

- Successful completion of an approved program of study; and
- Successful presentation and approval of the Master of Education Portfolio

Educational Specialist (EdS)

The Educational Specialist 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.

EdS Admission Requirements

- Master's degree from a regionally accredited institution with a 3.3 GPA, a combined score of 890 on the verbal and quantitative portion of the GRE and a 4.5 on the writing portion

or

- A grade point average no lower than 3.0, a combined minimum score of at least 1000 on the Graduate Record Exam (GRE) verbal and quantitative sections, and a score of at least 4.5 on the writing and analytical sections.

In addition applicants must also submit:

- Completed Online College of Education Biographical Data Form
- Recommendation of the program advisor
- Valid teaching certificate
- Two letters of recommendation addressing potential leadership ability and success in a graduate program.

Students must have at least four years' experience in the content area by completion of the 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 370 on the Verbal Scale
- Graduate Record Exam (GRE) score of at least 430 on the Quantitative Scale

- Graduate Record Exam (GRE) score of at least a 4.0 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 8305 School Personnel Administration
- EDAS 8312 School Business Management and Facilities Planning
- EDFN 7304 Basic Statistics
- EDFN 8305 Intermediate Statistics

Program Requirements

The program of study 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. 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. Failure to progress satisfactorily will result in the removal of the candidate from the program.

Required Course Work

If admitted to the EdS program after July 1, 2006 (prior admission criteria available from Program Coordinator)

- EDAS 8300 Seminar and Scholarly Writing
- 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 8314 Contemporary Issues in Education Administration
- Program co-requisite: SPED 4301 The Exceptional Learner (or equiv)

Educational Foundation Courses

- EDFN 7304 Basic Statistics
- EDFN 7373 Qualitative Research Methods
- EDFN 8305 Intermediate Statistics
- EDFN 8306 Advanced Educational Research

District Level Internship

- EDAS 8380 and 8381 Administration Internship in Central Office (two semesters)

Approved Electives

- A maximum of nine hours of approved electives from outside the College of Education

The student's progress is assessed after the first 12 hours of course work, and students proceeding acceptably may apply for advancement to candidacy. The approved electives allow students to branch into a field of related interest. The culminating experience in the EdS program is the portfolio presentation to the program's faculty.

Please contact the program coordinator for additional information and current programs and requirements regarding licensure in the State of Arkansas.

EdS Graduation Requirements

- Successful completion of an approved program of study; and
- Successful presentation and approval of the Education Specialist Portfolio

Doctor of Education EdD

Admissions Requirements

- A web application to the Graduate School
- Master's degree or equivalent in a related field from a regionally accredited institution
- Cumulative GPA of 3.5 and GRE combined score of 1000 with at least 450 on the Verbal and 450 on the Quantitative sections and with an Analytical Writing score of 4.5.
- A valid teacher license (Arkansas or other state)
- Three letters of recommendation prepared specifically for the EDAS EdD program at UALR attesting to qualifications for 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
- Students who plan to pursue administrative licensure: Four years of experience in education (at least three of which must be as a teacher) at a level appropriate to the individual's proposed program emphasis. (Teaching experience may accrue during program accomplishment.)

Applications to the doctoral program are reviewed once a year, during Spring semester and the qualified candidates are admitted for Summer session.

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 400 on the Verbal Scale
- Graduate Record Exam (GRE) score of at least 450 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 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

A doctoral student may take the option of having a co-emphasis in Special Education Administration or Gifted and Talented Administration. This 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. Candidates 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.

Program Requirements

Requirements for the EdD in Educational Administration and Supervision include a minimum of 60 post-master's hours of course work, passing the doctoral comprehensive examination, and successful completion of defense of the doctoral dissertation.

For more information please visit the web site at <http://www.ualr.edu/edleadership/>.

The 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.

Required Course Work (18 hours)

- EDAS 8303 Advanced Seminar in School Law and Ethics
- EDAS 8307 Sociocultural Foundations of Educational Policies
- EDAS 8310 Directed Readings
- EDAS 8317 Politics and Policy Analysis
- EDAS 8320 Advanced Administrative Leadership Theory
- EDAS 8330 Organizational System Analysis, Design, and Change
- Program co-requisite: SPED 4301 The Exceptional Learner (or equiv)

Electives or Co-emphasis Area (12 hours)

- Approved electives by the College of Education

Educational Foundations (15 hours)

- 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 hours 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 EdD 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 the doctoral program coordinator to choose one of four residency options 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

In addition, the candidate must enroll for graduate hours every fall and spring semester until graduation.

Advanced Standing Program

Doctoral applicants graduating from a regionally accredited institution with an Educational Specialist degree (EdS) in educational administration may be admitted to advanced standing for a maximum of 30 semester hours in the field of educational administration. The student 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. Credit toward advanced standing will be awarded on an individual basis by the program coordinator and recommended by the College of Education dean's office and Graduate School. The following stipulations would apply for advanced standing. Applicant must have:

- A grade of B or better in applicable graduate courses;
- EdS degree completed within the past 5 years, or EdS degree with continuous service as a practicing administrator for the past five years in a position requiring a public school administrator license;
- EdS courses applicable to the UALR EDAS Doctor of Education degree.

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 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 completing course work and passing comprehensive examinations, students apply for advancement to candidacy. Advancement is based on the student's record, including a GPA of at least 3.5 and recommendations of instructors. Students not meeting these requirements will have an interview with program faculty members, who will then recommend continuation, remediation and re-examination, or withdrawal.

The dissertation is begun after the student completes the course work and passes the comprehensive examination. A full research proposal is submitted to a dissertation committee consisting of three College 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.

EdD Graduation Requirements

- Successful completion of an approved program of study
- Successful completion of the Chalk and Wire and LAB 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 MEd and EdS requirements; the EdD 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.

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 teambuilding 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.

Higher Education

Dickinson Hall, 419
569-3267, 569-8944

Master of Arts and Doctor of Education

The Master of Arts in Two-Year College Teaching is designed for those individuals 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 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.

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 Two-Year College Teaching or College Student Affairs or the doctorate in higher education, visit the program's web site at <http://ualr.edu/edleadership/>.

Master of Arts (both programs)

Master of Arts Admission Requirements

- Application for admission to the UALR Graduate School
- Graduate Record Exam score of at least 900 (verbal and quantitative scales combined), or Miller Analogies Test score of at least 396, 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 and if only one criterion is achieved (the required test score or required GPA), the student 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.

Master of Arts in Two-Year College Teaching

Program Requirements

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

- ADED 5301 Psychology of the Adult Learner
- HIED 8320 The Two-Year College in America
- HIED 8331 College Instruction
- HIED 8344 Legal Issues in Teaching

Electives*

- HIED 8362 Internship: Teaching
- EDFN 7303 Introduction to Educational Research
- EDFN 7313 Learning Theories and Instruction Applications
- EDFN 7314 Cognition and Instruction
- LSTE 7302 Instructional Technology
- LSTE 7305 Survey of Computer-Based Learning Systems
- LSTE 7310 Interactive Technology (Multi-media)
- LSTE 7320 Advanced Instructional Teaching

* 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

Master of Arts 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 Master of Arts in College Student Affairs is a 36-hour program, consisting of three components:

- Foundational Studies - the study of the foundations of higher education and student affairs
- 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

- Supervised Practice - consists of one or two semester-long internships/practica 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
- EDFN 7303 Introduction to Research

Specialization Requirements

- 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
- HIED 8353 Assessment and Program Evaluation in Student Affairs
- CNSL 7308 Cross Cultural Counseling

Electives

12 hours of approved graduate-level electives

Capstone Experience (selective)

- Comprehensive Written Exam
- Academic Thesis
- Portfolio

Total Program hours: 36

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 and personal, social, and academic attributes. It is expected that applicants have professional work experience. Particular attention is given to the degree of congruence between the applicant's career objective and the proposed field of specialized study. 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 and GRE combined score of 1000 with at least 450 on the Verbal and 450 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

If applicants do not meet the admission standards outline above, they may be considered for conditional admission if they meet three of the following four cut-score criteria:

1. A master's degree with a graduate GPA of 3.5 or above;
2. A score of 400 or above on the verbal section of the Graduate Record Examination (GRE);
3. A score of 450 or above on the quantitative section of the GRE;
4. A score of 3.50 or above on the analytical writing section of the GRE.

Additionally, documented evidence of a student's ability to succeed in graduate-level work may be required. Program faculty may request the following documentation, including: official transcripts from all post-Master's studies, successful graduate course work from an accredited university, examples of academic and professional work, 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, and upon completion of 12 semester hours in the program, the Higher Education Program Admissions Committee will review the work

completed to that point by the applicant as part of the overall admissions application and package to determine if the student will be granted regular admission to the program. Admission to the regular status will be contingent upon the student successfully completing the following course work with a minimum 3.5 GPA:

Prerequisites (if Master's degree is not in Student Affairs):

- HIED 7351 Foundations in Student Affairs
- HIED 7352 Student Development Theory

Higher Education Core (9 hours)

- HIED 8301 History and Philosophy of Higher Education
- HIED 8303 Leadership Theories in Higher Education
- HIED 8399 Dissertation Seminar

Research Core (12 hours)

- EDFN 7304 Basic Statistics
- EDFN 8305 Intermediate Statistics
- EDFN 8306 Advanced Research Methods and Techniques
- EDFN 7373 Qualitative Research Methods

Conditional admission does not guarantee regular admission to the EdD 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.

Residency Plan

All requirements for the doctoral degree must be completed within seven consecutive years of enrollment in the program. Each EdD 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
- 24 total hours in 24 consecutive months with at least 6 hours each enrollment period (summer sessions not required, but if students elect to enroll in summer term, 6 hours must be taken)

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., issues, history, curriculum, administration, organizational theory, finance, teaching and faculty issues, law, student affairs). In addition, they develop a broad familiarity with the theory, practice, and scholarship of higher education.

The comprehensive exam is taken after completion or during the final semester of course work and is followed by an oral comprehensive exam. 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 substantive contribution to the field.

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

Education/Higher Education Core

- HIED 8301 History and Philosophy of Higher Education
- HIED 8303 Leadership Theories in Higher Education
- HIED 8399 Dissertation Seminar

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

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 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

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 address 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 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 serves, 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 8162-8662 Independent Study

Prerequisite: graduate status, consent of instructor. Individual inquiry into selected problems or special topics in higher education under supervision of a graduate faculty member.

HIED 8301 History and Philosophy of Higher Education

Prerequisite: graduate status. Development, evolution of higher education as a dynamic social, political institution; emphasis on past philosophies, assumptions that undergraduate diverse colleges, universities today.

HIED 8311 Internet Research in Higher Education

This course is intended to familiarize students with the scope and nature of higher education-related resources using computer technology and the Internet. It explores the concept of 'environmental scan' and assists students to create scan strategies that are optimally useful for their specific higher education instructional, administrative and research interests. Students will 'think technologically' about the production of knowledge and complete original research projects using online datasets.

HIED 8320 The Two-Year College in America

Prerequisite: graduate status. An overview of the two year college. Topics include the history and philosophy of the two year college movement, students, curriculum, state and local campus governance, teaching, student personnel work, finance and issues, problems and trends.

HIED 8321 Organization and Administration of Two-Year Colleges

Prerequisite: graduate status. Examination of the organizational patterns of and management practices within two-year colleges. Topics include; leadership, organizational theories, and relations with external agencies; the operations of various administrative units such as the president's office, business affairs, student services, instruction, personnel, and institutional research; and the management of college functions, such as recruitment assessment, planning, and performance appraisal.

HIED 8322 Issues and Challenges in Two-Year College Leadership

Prerequisite: graduate status. Examines current issues facing the contemporary two year college and the challenges that these issues present to two year college leaders. Focuses attention on the analysis of an issue, the assessment of the potential impact of an issue, and the incorporation of information generated from issue analysis into institutional planning processes.

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 and 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 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.

Learning Systems Technology

Dickinson Hall, 403
569-3269

Master of Education

The Master of Education in Learning Systems Technology (LSTE) prepares students in the field of instructional technology for careers in public schools, community colleges, higher education institutions, business, industry, and medical settings or facilities. Educational technologists analyze problems in all aspects of human learning; they revise, implement, evaluate, and manage solutions to those problems. Aspects of the program include the psychology and development of the learner, learning resources development and application, and societal concerns pertaining to instructional technology. Because these careers deal with services to the entire population, all courses in this program make specific efforts to include the needs of the handicapped and exceptional learners.

The program goals are based on the International Society for Technology in Education (ISTE) Standards for Basic Endorsement in Educational Computing and Technology Literacy (currently, an endorsement in the State of Arkansas does not exist; however, the endorsement is a planned project by the State Department of Education) and the ISTE Standards for Advanced Programs in Educational Computing and Technology Leadership.

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 <http://ualr.edu/med/LSTE/>.

Admissions Requirements

All applicants for both Regular and Conditional Admission statuses must have a favorable recommendation from the program coordinator.

Regular Admission (additional requirement)

- 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 (additional requirements)

- 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 Master of Education in Learning Systems Technology requires a total of 36 graduate credit hours, including 9 educational foundations hours; 18 learning system technology hours; 9 elective hours from the areas of educational foundations, English writing, learning systems technology, or other content area approved by the advisor; plus a comprehensive examination or alternative exit requirement, i.e. a portfolio presentation. No more than six hours of workshop credit will be accepted in the program. No more than six hours earned within the last three years of transfer credit will be accepted in the program.

Educational Foundations Required Courses

- EDFN 7303 Introduction to Educational Research
- EDFN 7313 Learning Theory and Instructional Applications
- EDFN 7314 Cognition and Instruction

Learning Systems Technology Required Courses

- LSTE 7303 Technology and Society
- LSTE 7305 Survey of Computer-Based Learning Systems
- LSTE 7310 Systematic Integration of Technology in Learning Settings
- LSTE 7320 Intranet and Internet Learning Systems
- LSTE 7325 Assessment in Learning Systems Technology
- LSTE 7330 Distance Learning Systems Technology

Possible Electives chosen from the following:

- LSTE 7100,7200,7300 Independent Study
- LSTE 7101, 7201, 7301 Workshop in Learning Systems Technology
- LSTE 7306 Digital Photography and Learning Systems
- LSTE 7308 Digital Television and Learning Systems
- LSTE 7309 Administration of Learning Systems Tech
- LSTE 7360 Seminar
- EDFN 7304 Basic Statistics
- EDFN 7320 Advanced Educational Psychology
- EDFN 7330 Human Development
- RHET 5302 Technical Reports
- RHET 5304 Technical Style and Editing
- RHET 5306 Writing for Business and Government

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 Technology and Society (ISTE standard 1.1, 1.2, 4.1, 4.3, 4.4, 5.2, 5.5)

This course 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 technology are surveyed.

LSTE 7305 Survey of Computer-based Learning Systems (ISTE standard 1.1, 1.2, 1.3, 4.2,4.5)

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 (ISTE standard 2.2, 4.2, 4.3)

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 7308 Digital Television and Learning Systems (ISTE standard 2.2, 4.2, 4.3)

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 (ISTE standard 1.3, 2.1, 2.4, 3.2, 4.4, 4.5, 5.1, 5.3, 5.4)

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 (ISTE standard 1.1, 1.2, 1.3, 2.1, 2.2, 2.4, 3.1, 3.2, 4.4, 5.2)

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 7320 Intranet and Internet Learning Systems (ISTE standard 1.1, 1.2, 1.3, 2.1, 2.3, 4.3, 4.4)

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 (ISTE standard 1.1, 1.2, 1.3, 2.1, 2.4, 3.1)

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 7330 Distance Learning Systems Technology (ISTE standard 1.1, 1.2, 1.3 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 5.3, 5.4, 5.6)

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 (ISTE standard 1.2, 1.3 2.1, 2.4, 3.1, 3.2, 5.3, 5.4, 5.6)

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.

Middle Childhood Education

Dickinson Hall, 300
569-3124

Master of Education

The Master of Education in Middle Childhood Education (MCED) is a program that enhances the general expertise of middle-level educators 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. For more information about the Middle Childhood Education program visit the web site at <http://www.ualr.edu/coedep/teached/middlece.htm>.

Admissions 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 I, Academic Skills Assessments: Reading, Writing, and Mathematics*.
- A satisfactory interview completed with Middle Childhood faculty

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 (with at least a total on verbal and quantitative of 1000), 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 hours may be required
- At least 15 - 18 hours in the area of concentration (6 of which must be at the 3000 or above level)
- 12 - 15 hours in the three areas not chosen as a concentration are required

Legal Requirements Prior to Field or Internship Placements

Students 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 prior to field or internship placements:

- Passing score on Praxis II Middle Level Content Knowledge
- 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.
- Complete the Criminal Background Disclosure.

Before being recommended for licensure, students must also submit:

- 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 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, and social studies). Each person's transcript will be assessed on an individual basis and an individual program will be developed.

Middle School Additional Licensure Endorsement for Early Childhood Education Standard Teaching License Holders

Individuals who hold a P-4 standard teaching license in Early Childhood Education may qualify for an Additional Licensure Endorsement for Grades 5 and 6, which would enable them to teach grades 5 and 6.

In addition to holding a standard P-4 license in Early Childhood Education, these teachers must complete and achieve a passing score on the *Praxis II: Middle School Content Knowledge* before being eligible to enroll in the 9 hours of coursework required for this additional licensure endorsement.

Middle School Endorsement Required Courses:

- MCED 7312 Development of Young Adolescents
- MCED 7314 Teaching the Middle Level Exceptional Child in the Inclusive Classroom
- MCED 7315 Middle Level Curriculum and Pedagogy

Retention Requirements

Once admitted, students 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, students' 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.

Degree Requirements

The initial licensure requires 36 graduate credit hours, including 12 education core hours and 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.

College of Education/ Foundations Courses (12 hours)

Research (3 hours)

- EDFN 7303 Introduction to Educational Research

Assessment (3 hours)

- EDFN 7370 Educational Assessment

Instructional Technology (3 hours)

- TCED 5300 WS: Developing an Electronic Portfolio
- TCED 5300 Integrating the Internet
- LSTE 7305 Survey of Comp-based Learning Systems

Learning Theory (3 hours)

- MCED 7312 Development of Young Adolescents
- EDFN 7320 Adv Educational Psychology

Middle-level Education Emphasis Courses (18 hours)

- MCED 7313 Middle Level Reflective Teaching {Initial Course}
- MCED 7314 Teaching the Middle Level Exceptional Child in the Inclusive Classroom
- MCED 7315 Middle Level Curriculum and Pedagogy
- MCED 7316 Literature for Young Adolescents
- MCED 7317 Middle Level Literacy and Language Arts
- MCED 7318 Classroom Management for the Middle Level Teacher
- MCED 7319 Internship
- EDFN 8301 Instructional Research and Data Management {Capstone Course}

Teaching Fields Courses (optional)

- MCED 7301 Teaching Middle School Math
- MCED 7302 Diagnosis and Remediation in Math
- MCED 7305 Teaching Mathematics to the Gifted
- MCED 7328 Science Education
- MCED 7330 Social Studies Education

Additional Requirements for Certification

- HIST 4355 Arkansas History or comparable course
- *Praxis II: Principles of Learning and Teaching (30523)* and *Middle School: Content Knowledge (20146)*
- Candidate must meet Arkansas Department of Education requirements of at least 12-15 hours in each of the four content areas of math, science, social studies, and language arts.

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

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. All curriculum standards as identified by the National Council of Teachers of Mathematics covered, as well as instructional strategies for teaching them. Consideration given to contemporary problems, trends, and practices in the field, as well.

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. Students review, discuss, and summarize research articles concerning diagnosis and assessment; review and discuss the national Council for Teachers of Mathematics (NCTM) Evaluation Standards; analyze a variety of measurement devices; develop, construct, and administer two specific diagnostic tools; diagnose a specific learner's performance in mathematics; prepare an interpretation of the results for parents and professionals; 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 Middle Level Reflective Teaching

The history, philosophy, and major concepts of middle level education. Organizational components of middle level schools, current issues and trend 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. 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 and discussed in the classroom. 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 understand, 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, students will be placed in an active teaching role in a local school. Students will plan, teach, and reflect on the experience. Students 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 students 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 manipulative 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. Students 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.



Reading Education Programs

Dickinson Hall, 300
569-3124

Literacy Coach Specialist Graduate Certificate, Master of Education, Educational Specialist in Reading Education, and Doctor of Philosophy in Reading

The Reading Education program in the UALR College of Education offers a Graduate Certificate in Reading/Literacy Coach, a Graduate Certificate in Literacy Intervention Specialist in Reading, a Master of Education in Reading Education, an Educational Specialist degree in Reading Education and a Doctorate in Philosophy in Reading. Descriptions of each program and specific information outlining program requirements are provided below.

Literacy Coach Specialist Graduate Certificate

The Literacy Coach Specialist certificate is a 18-hour program of study that results in a credential issued by UALR. The Literacy Coach Specialist certificate program is designed for candidates with reading background who are employed as literacy coaches in school settings.

Graduate Certificate Admission Requirements

(Note: These requirements also will apply to the Master of Education program, as described in a subsequent section.)

All applicants for both Regular or Conditional Admission status must have:

- A valid teaching license (Arkansas or other state) and
- Favorable recommendations from faculty in the program.

Specific admission criteria for Regular or Conditional admissions follow:

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 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 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

Graduate Certificate Program Requirements

The graduate certificate in Reading/Literacy Coach is a 18 credit hour program. The certificate is designed to prepare the reading specialist for the unique role of literacy coach. To meet the International Reading Association Standards for Reading Professionals, the Reading/Literacy Coach program of study focuses on three major areas of preparation: 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 techniques, curriculum design, program evaluation, and research on literacy and school change. Two courses include a field practicum in literacy coaching with observation visits from university faculty. The training for the Literacy Coach Specialist certificate is restricted to candidates employed as literacy coaches in school settings or approval from program advisor. Additional information on the Literacy Coach program can be obtained from the UALR Center for Literacy web site at www.arliteracymodel.com.

Reading/Literacy Coach Courses (18 hours)

Theory and Research (6 hours)

- READ 7398 Theory and Practice in Literacy

Practicum/Field Experiences (9 hours)

- READ 8301 Supervision and Organization of Reading Programs
- READ 8302 Professional Experiences in Reading
- READ 8305 Literacy Coaches as Agents of Change

Literacy Framework (6 hours)

- READ 7395 Comprehensive Literacy Model for School Improvement
- READ 8304 Curriculum Design and Evaluation of Reading Program

Graduate Certificate Graduation Requirements

- Successfully complete a 21 credit hour program of study with a minimum GPA of 3.0.
- Defend a Reading/Literacy Coach portfolio that demonstrates proficiency in program areas.

Master of Education in Reading

The Master of Education in Reading focuses on preparing candidates for licensure as reading specialists. The MEd program of study emphasizes the relationship between theory, research, and practice in literacy education. The MEd in Reading program meets NCATE, Arkansas Department of Education (ADE) and International Reading Association (IRA) standards.

For more information about the Reading Education program, visit the program's web site at <http://www.ualr.edu/coedep/teached/reading.htm>.

MEd 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 the result of an interview with Reading Program Faculty;
- Minimum of one year classroom teaching experience; and
- Current employment in a school setting.

Specific Admission Criteria for Regular or Conditional Admissions:

Regular Admission

- Baccalaureate degree from a regionally accredited institution with a cumulative undergraduate 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 course work

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 grade point average of no lower than a 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 program or graduate program from another regionally accredited college or university with a cumulative grade point average of 3.0 and no grade lower than a B.

Upon admission to the Master of Education in Reading program and prior to the start of course work, the student is required to meet with a member of the Reading Program Faculty in order to complete a program of study.

MEd Program Requirements

The Master of Education in Reading degree requires 36 graduate credit hours, including 15 common requirement hours and 21 hours with a reading emphasis. Up to six hours of 5000 level courses may be applied to the degree. Passing the comprehensive exam and the Praxis II in the specified field is required for graduation. The program meets IRA standards for Category III, preparing the Reading Specialist/Literacy Coach. In addition, the MEd in Reading program satisfies NCATE standards.

Common Requirements in Five Areas (15 hours):

Curriculum

- READ 7327 Contemporary Curriculum Design

Instructional Technology

- LSTE 7305 Micro Applications, *or*
- TCED 5300 Comp/Internet

Assessment

- READ 7352 Diagnosis of Reading Difficulties I, *or*
- READ 7365 Specialized Assessment in Early Literacy Instruction

Research

- EDFN 7303 Introduction to Research

Learning Theory

- READ 7351 Foundations of Teaching Reading

Emphasis Requirements (21 hours of which 12 hours are *required courses)

- READ 7356 Practicum in Reading*
- READ 7370 Advanced Practicum in Reading*

- READ 7397 Creating a Literate Environments for Young Learners*

- READ 7357 Seminar in Reading*
- READ 7321 Processes and Strategies in Reading Comprehension
- READ 7326 Developmental Reading
- READ 7330 Children's Literature Across the Curriculum
- READ 7340 Best Practices in Literacy Instruction
- READ 7342 Principles of Literacy & Cognition I

- READ 7343 Principles of Literacy & Cognition II
- READ 7344 Intervention Designs for Struggling Readers
- READ 7345 Advanced Practicum in Intervention Models
- READ 7351 Foundations of Teaching Reading
- READ 7352 Diagnosis of Reading Difficulties I
- READ 7353 Diagnosis of Reading Difficulties II
- READ 7354 Reading in the Content Areas
- READ 7361 Language and Reading Instruction
- READ 7365 Specialized Assessment in Early Literacy Instruction
- READ 7393 Special Topics
- READ 7395 Comprehensive Literacy Model for School Improvement
- READ 7107, 7207, 7307 Reading Workshop
- TCED 5300 Reading Workshop (Maximum -6 hours)

UALR is a certified University Training Center (UTC) for preparing Reading Recovery teachers and teacher leaders. 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 participates in 12 hours of specialized coursework. In Year 1, the candidate receives training as a Reading Recovery teacher. In Year 2, the candidate receives training in the K-8 small group intervention model.

Reading Recovery/Intervention Teacher Courses (12 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 7345 Advanced Practicum in Intervention Models

Additional information on the Reading Recovery and Intervention programs can be obtained at the UALR Center for Literacy web site www.arliteracymodel.com.

Reading Specialist Licensure

The Arkansas Department of Education offers two levels of licensure: P-8 and 7-12. Upon graduation, which requires successfully completing required course work, passing the comprehensive exam, and passing the Praxis II for Reading Specialist, students will be eligible for reading licensure in the State of Arkansas.

MEd Retention Requirements

Once admitted, students are required to maintain an overall grade point average of 3.0 with at least a grade of B in all Reading Education (READ) courses. The student must have a 3.0 grade point average in the initial 12 hours of READ courses in order to continue in the MEd in Reading program. The student's adviser will conduct a transcript evaluation after the completion of 12 hours of READ courses. Students will be notified of their status.

In addition, students' professional behavior, content knowledge, classroom performance, and dispositions will be monitored throughout the program. Professional development conferences with Reading Department Faculty will be held if concerns in these areas are identified. Successful advancement in the program is not based solely on the number of course credits earned; it also

requires demonstration of specified professional knowledge, skills, behaviors, and dispositions.

MEd Graduation Requirements

- Complete a minimum of 36 hours of program course work with at least 21 hours in reading, including required classes.
- Earn a minimum grade point average of 3.0 in course work specified on program of study.
- Pass a comprehensive examination that covers program areas.
- Pass the *Praxis II* examination for reading specialist.

Educational Specialist in Reading Education

The Educational Specialist (EdS) in Reading degree is a 36-hour program of study designed to prepare candidates for a leadership role in literacy-related areas, including literacy curriculum specialists, literacy coaches, teacher leaders, literacy supervisors, teacher educators, and other leadership roles in reading instruction. Prior to graduation, candidates are required to pass a written comprehensive examination and to submit and defend a portfolio of their work from courses, including evidence of scholarly writing, research projects, and successful field experiences. During the final six hours of the program, candidates are required to complete and defend a research project in a literacy-related area. The program typically requires a two to three year commitment beyond the master's degree for completion. The EdS in Reading program meets the standards of NCATE and the International Reading Association (IRA). For more information about the program, visit the web site at <http://www.ualr.edu/coedep/teached/reading.htm>

EdS Admission Requirements

- Master's degree or equivalent in a related field from a regionally accredited institution
- Cumulative graduate GPA of at least 3.3

or

- Cumulative GPA of 3.0-3.29, plus a combined score of at least 1000 on the Graduate Record Examination (taken within the last five years) with at least 450 on the Verbal and 450 on the Quantitative sections and a minimum score of 4.5 on the Analytical Writing subtest.
- Valid teaching license (Arkansas or other state)
- Favorable recommendation as the result of an interview with Reading Program Faculty
- Minimum of two years of recent teaching experience

Additional Admission Requirements

If a 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 reading education and diagnosis in reading difficulties or equivalent courses. If the candidate seeks reading licensure, the candidate must complete any additional requirements, including passing the Praxis II for Reading Specialist. In these cases, the candidate will work closely with the MEd and EdS program coordinators to create an individualized program of study, which could

exceed the standard 36-hour requirements for the EdS in Reading program.

EdS Program Requirements

The EdS 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 EDFN 8306 Advanced Research Methods.
- 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)

- EDFN 7304 Basic Statistics
- EDFN 8306 Advanced Research Methods

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
- READ 7348 Teaching the Writing Process in Schools
- 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*

**If the student plans to seek a doctorate in reading, Thesis I and II are recommended*

UALR is a certified University Training Center (UTC) for the preparation of Reading Recovery Teacher Leaders. To be accepted for training, the Reading Recovery teacher leader candidate must be 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 a 21-hour program of study, including an internship in Arkansas schools.

Reading Recovery Teacher Leader 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 7398 Theory and Practice in Literacy
- READ 8301 Supervision and Organization of Reading Programs
- READ 8202 Professional Experience in Reading Programs
- READ 8340 Research in Language and Literacy Acquisition

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 (PhD) 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 PhD in Reading degree is a research-oriented program of study with rigorous coursework in literacy theories 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:

1) interacting with researchers and accomplished practitioners through UALR sponsored events, including the annual literacy conference, spring literacy academy, and summer institutes;

2) collaborating with faculty on literacy-related research projects;

3) using technology for research, assessment, and the dissemination of information; and

4) 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.

The Ph.D. in Reading is designed to prepare reading educators for leadership roles in scholarly practice, literacy research, and teaching at university or college levels. The

program prepares candidates with specialized knowledge and experience related to literacy issues in K-12 schools, universities, and the wider context of teaching and learning.

If a candidate enters the doctoral program with a Master's degree in Reading Education, it is possible for a full-time candidate to complete the PhD in Reading program within five years, provided that all prerequisite requirements in research have been met. If a full-time candidate enters the program with an Educational Specialist degree in Reading Education, the PhD in Reading program could be completed in three years. However, for most students, the timeline will be longer; therefore, faculty should work closely with doctoral candidates to ensure the timeline does not exceed seven years.

PhD Admission Requirements

Students 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.

- Overall GPA of 3.3 in previous graduate study
- A combined score of 1000 on the GRE (taken within the last five years) with at least 450 on the Verbal and 450 on the Quantitative sections and a minimum score of 4.5 points on the Analytic Writing subtest.
- Minimum score of 550 (213 computer-based test) on the Test of English as a Foreign Language (TOEFL) - this requirement applies to an applicant from a country where the native language is not English, unless a bachelor's degree or its equivalent or higher was earned in a country where English is the native language.
- Three letters of reference from those who know of the candidate's professional and personal record and promise
- Writing sample (may be previous academic work)
- Resume or curriculum vita`
- Interview with reading faculty

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. During residence, it is expected that the student will be engaged in full-time on-campus study toward the doctoral degree. The purpose of the residency requirement is to give students the opportunity to engage in intensive, concentrated study over an extended period of time in association with faculty members and other students in an atmosphere conducive to a high level of intellectual and scholarly activity.

PhD Program Requirements

The PhD in Reading requires a minimum of 108 hours (72 hours beyond the master's degree) as determined by student and student's coursework advisor. The program of study is organized under four curricular areas: 1) Literacy Core; 2) Research Core; 3) Specialty Area; and 4) Dissertation. The literacy core includes 15 hours of coursework 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 coursework 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 coursework 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 coursework 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 coursework, including Foundations of Teaching Reading, Reading Diagnosis (or equivalent courses), and 3 hours of Reading practicum prior to enrolling in any 8000-level reading coursework. 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: (15 hours)

- EDFN 8305 Intermediate Statistics
- EDFN 8308 Advanced Statistics
- EDFN 8306 Advanced Research 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 seven-year limit.

- READ 9199-9999 Dissertation

Gateways For Monitoring and Supporting Candidate's Progress

In the PhD program of study, seven gateways are established at critical transitions in the candidate's program to provide a timeline for completing the doctoral degree within the seven-year timeframe. Evidence of the candidate's progress is reviewed and approved by the student's committee prior to the next gateway. These gateways are essential assessment periods for determining the student's capacity to conduct doctoral work.

Gateway 1: Review of transcripts, sample of work from previous degree, interview with doctoral committee, and advisement meeting with graduate coordinator

An important step in the UALR admission process is an interview with a committee of two or three reading faculty, including the graduate coordinator of the PhD in Reading program. In preparation for the interview, the candidate will compile a collection of artifacts that demonstrate his or her qualifications for doctoral work, including a writing sample from the previous degree and a professional vita. The candidate might also include any other artifacts that display his or her accomplishments in literacy and leadership areas. If approved, the graduate coordinator will schedule a meeting with the candidate to outline program expectations, coursework, and further gateways for completion.

Gateway 2: Review of student progress at completion of 18 hours and committee approval of two pre-qualifying papers from literacy core

At the end of 18 hours of coursework, the reading faculty will evaluate the student's academic progress, including 6 hours from the literacy core, 6 hours from the research core, and 3 hours from the specialty area. The student must pass this gateway in order to continue in the PhD program. The student will be required to submit two papers written for courses completed in the literacy core. One paper can be a case study, including a comprehensive review of the literature in which the student discusses the major issues and analyzes the research related to the topic.

The papers must be read and approved by a committee of two faculty members before the student can move to the third gateway.

Gateway 3: Review of student work at completion of 36 hours and approval of third pre-qualifying paper from literacy core or specialty area

At the end of gateway 3, the student will have successfully completed 36 hours of coursework. The student must pass this gateway in order to continue in the Ph.D. program. The student will be required to submit a third paper, which can be selected from the literacy core or the specialty area. The paper must be read and approved by a committee of two faculty members before the student can move to the fourth gateway.

Gateway 4: Completion of 36 hours of coursework, approval of three pre-qualifying papers, oral defense of dissertation prospectus, and initial preparation for pre-qualifying examination

At the end of this gateway, the student will have completed 36 hours of coursework, have three pre-qualifying papers signed by two readers each, and defended a dissertation prospectus. The dissertation prospectus is a preliminary version of the dissertation proposal and is usually 10 pages in length. Also, with the help of the faculty advisor and other members of the committee, the student will have created a reading list of significant topics for the oral examination. This list will form the basis for the pre-qualifying examination, which will include two components: 1) written examination that occurs over a three day period, and 2) oral defense of examination, which is generally two to three hours long (and can include defense of the dissertation prospectus).

Gateway 5: Completion of all pre-qualifying criteria before advancement to candidacy

At the end of this gateway, the student will have completed all coursework, have three pre-qualifying papers signed by two readers each, and defended a dissertation prospectus. The student will meet with his/her faculty advisor to review all work before the next gateway.

Gateway 6: Written pre-qualifying examination, oral defense of examination, advancement to candidacy, dissertation proposal review meeting

The pre-qualifying examination is the university's means of evaluating and certifying the adequacy and appropriateness of the student's preparation for the doctorate. The purpose of the examination is: 1) to test eligibility of the student for admission to candidacy for the Doctor of Philosophy in Reading; and 2) to evaluate his or her ability to complete a satisfactory doctoral dissertation. After passing the written examination and the oral defense, the student will apply for Advancement to Candidacy. At this time the dissertation committee is established. The dissertation committee is comprised of a minimum of 4 UALR Graduate faculty members—at least two from reading, one from research, and one from another area. The student can request a fifth member outside UALR to serve on the committee.

Advancement to Candidacy

Advancement to Candidacy means that the student has demonstrated the ability to do acceptable graduate work and that satisfactory progress has been made toward completing the degree. This action assures that all prerequisites to admission have been completed and a program of study has been approved.

Gateway 7: Completion of dissertation and successful defense.

At the final gateway, the student has met all requirements for the Doctor of Philosophy in Reading, including the unanimous approval of the dissertation by

the committee members. If this is not possible, the chair will work with the committee to address the concerns, and the majority vote will rule.

Courses in Reading Education

READ 7107, 7207, 7307 Reading Workshop

Reading workshop on specific topics, including group discussions and preparation of reading materials for use with children. 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 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. Offered in fall, spring and summer.

READ 7327 Contemporary Curriculum Design

(For teachers, supervisors, and administrators in developing clear concepts about all children and their educational programs.) Philosophy, administration, and techniques of curriculum design, including participation in development of a culturally pluralistic curriculum. Offered in spring.

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. Students 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 prewriting, 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. Offered in fall and spring.

READ 7352 Diagnosis of Reading Difficulties I

Prerequisite READ 7351. This course explores the causes of reading difficulties/disabilities, approaches to diagnosis, and appropriate remedial measures. Students 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. Students 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. Students 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. A focus will be placed on developing inquiry-based settings where language is used as an instructional tool for increasing knowledge, including concepts and practices of contingent scaffolding, change over time, and the development of self-regulated learners. Theories of knowledge acquisition, literacy processing, assisted performance, and transfer are examined and applied to the everyday contexts of reading and writing. Students will 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 evidence-based 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. Students will complete a case study that examines the influence of assisted performance and scaffolding techniques for increasing literacy knowledge

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 will 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. Traces 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.

Rehabilitation of the Blind

Administration South,
106, 569-3169

Graduate Certificate and Master of Arts

The Master of Arts in Rehabilitation of the Blind programs (RHBL) develop skills in teaching persons who are congenitally and adventitiously blind or low vision in a wide range of education and rehabilitation agencies nationwide. Emphases offered are orientation & mobility instruction and rehabilitation teaching. The programs are open to both full-time and part-time students. Each degree program is 42 credit hours and offered on-line through the Internet, utilizing videostreaming as a major avenue to deliver information. Several of the courses require some hands-on workshops held in Little Rock.

Graduate Certificate in Orientation and Mobility

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 better in designated core courses
- Grades of C or better in all other approved courses

Master of Arts

Orientation & Mobility Instruction

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.

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 web site at <http://www.ualr.edu/orientationandmobility>.

Rehabilitation Teaching

This emphasis develops skills in teaching persons who are blind or low vision adaptive life skills through an individualized plan of instruction. It encompasses the use of specific yet varied evaluation and teaching techniques that help blind and low-vision persons develop and enhance

their skills in personal management, communication, and home management. A rehabilitation teaching service meets individual learner needs through the establishment of appropriate goals and sequential skills instruction.

Applicants to this emphasis area 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 abilities to meet this requirement should contact the program coordinator for further information and clarification.

The curriculum consists of theory and laboratory courses that include individual experiences with blindfolds and low-vision simulators, as well as practicum and internship experiences with persons who are visually impaired. For specific information, visit the RT program web site at <http://www.ualr.edu/rehdept>.

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 both program coordinators.

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 and rehabilitation teaching graduates must meet for national certification.

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 rehabilitation of the blind. 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 respective program coordinator: orientation & mobility or rehabilitation teaching.
- 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.

Admission Requirements

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 better in designated program courses.

Program Requirements

Each rehabilitation of the blind emphasis area requires 42 graduate credit hours. Students must complete all the classes listed below for their emphasis as well as any required elective hours. *Courses marked with an asterisk [*] require a grade of B or better.*

Courses required for a master's degree in RHBL: Orientation & Mobility [total 42 credit hours]

- CNSL 7302 Techniques of the Counseling Interview
- COUN 7360 Rehabilitation Foundations
- COUN 7362 Psychological Aspects of Disability
- EDFN 7303 Introduction to Educational Research
- RHBL 7315 Medical Aspects of Blindness and Associated Disabilities
- RHBL 7325 Implications of Low Vision
- 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*
- SPED 7305 Managing the Learning Environment
- RHBL 7390 Supervised Practicum*
- RHBL 7395 Internship*
- Two electives

Courses required for a master's degree in RHBL: Rehabilitation Teaching [total 42 credit hours]

- CNSL7302 Techniques of the Counseling Interview
- COUN 7360 Rehabilitation Foundations
- COUN 7362 Psychological Aspects of Disability
- EDFN 7303 Introduction to Educational Research
- RHBL 7315 Medical Aspects of Blindness and Associated Disabilities
- RHBL 7325 Implications of Low Vision
- RHBL 5302 Basic Independent Living Skills for Individuals with Impaired Vision*
- RHBL 7312 Braille and Relevant Formats
- RHBL 7314 Principles of Rehabilitation Teaching*

- RHBL 7310 Methods of Teaching Adaptive Living Skills to Persons with Visual Impairments*
- RHBL 7311 Methods of Teaching Adaptive Communication Skills to Persons with Visual Impairments*
- RHBL 7390 Supervised Practicum*
- RHBL 7395 Internship*
- One elective

Rehabilitation students who wish to complete two related master's degrees must be accepted and enrolled into both programs concurrently. The two most common double degrees in rehabilitation at UALR are:

- Rehabilitation Teaching and Orientation & Mobility
- Rehabilitation Teaching and Rehabilitation Counseling.

Courses required for dual emphasis in Rehabilitation Teaching and Orientation & Mobility [total 60 credit hours]

- CNSL 7302 Techniques of the Counseling Interview
- COUN 7360 Rehabilitation Foundations
- COUN 7362 Psychological Aspects of Disability
- EDFN 7303 Introduction to Research and Its Applications
- RHBL 7315 Medical Aspects of Blindness and Associated Disabilities
- RHBL 7325 Implications of Low Vision
- 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*
- SPED 7305 Managing the Learning Environment
- RHBL 5302 Basic Independent Living Skills for Individuals with Impaired Vision*
- RHBL 7312 Braille and Relevant Formats
- RHBL 7314 Principles of Rehabilitation Teaching*
- RHBL 7310 Methods of Teaching Adaptive Living Skills to Persons with Visual Impairments*
- RHBL 7311 Methods of Teaching Adaptive Communication Skills to Persons with Visual Impairments*
- RHBL 7390 Supervised Rehabilitation Teaching Practicum*
- RHBL 7395 Internship in Rehabilitation Teaching*
- RHBL 7390 Supervised Orientation & Mobility Practicum*
- RHBL 7395 Internship in Orientation & Mobility*
- One elective

Courses required for dual degree in Rehabilitation Teaching and Counseling: Rehabilitation Counseling [69 credit hours]

- CNSL 7301 Theoretical Approaches to Counseling*
- CNSL 7302 Techniques of the Counseling Interview*
- CNSL 7307 Theories and Techniques of Group Counseling*
- CNSL 7308 Cross Cultural Counseling*

- COUN 7360 Rehabilitation Foundations*
- COUN 7362 Psychological Aspects of Disability
- COUN 7363 Career Counseling and Placement*
- COUN 7364 Rehabilitation Case Management
- COUN 7367 Assessment in Rehabilitation*
- Supervised Practicum in Rehabilitation Counseling*
- COUN 7660 Internship in Rehabilitation Counseling (1)*
- COUN 7660 Internship in Rehabilitation Counseling (2)*
- EDFN 7303 Introduction to Research and Its Applications
- RHBL 7315 Medical Aspects of Blindness and Associated Disabilities
- RHBL 7325 Implications of Low Vision
- RHBL 5302 Basic Independent Living Skills for Individuals with Impaired Vision*
- RHBL 7312 Braille and Relevant Formats
- RHBL 7314 Principles of Rehabilitation Teaching*
- RHBL 7310 Methods of Teaching Adaptive Living Skills to Persons with Visual Impairments*
- RHBL 7311 Methods of Teaching Adaptive Communication Skills to Persons with Visual Impairments*
- RHBL 7390 Supervised Practicum in Rehabilitation Teaching*
- RHBL 7395 Internship in Rehabilitation Teaching*

Graduation Requirements

- Cumulative GPA of at least 3.0 in an approved program of study
- Grades of B or better in designated courses
- Grades of C or better 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

Pre-requisites: 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

Pre-requisite: 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

Pre-requisite: 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.

Secondary Education

Dickinson Hall, 300
569-3124

Master of Education

The Master of Education in Secondary Education provides proficiency in professional education, curriculum and instruction, teaching skills, and a teaching specialty. Three tracks are offered within the master's degree program, the initial licensure track, the provisional initial licensure track, and the advanced licensure track.

Initial Licensure Track

The initial licensure track in Secondary Education is for those who have a baccalaureate (BA, BS) 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 teaching speciality. Students who start at a time of the year other than the Fall semester will need at least three semesters to complete the licensure classes. Most courses are offered in the evening for the convenience of students who work full time. 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 courses on the student's degree plan. Students in the initial licensure track of the MEd in Secondary Education are required to pass state required *Praxis II* assessments as of Spring 2001. For more information on Title II, go to: <http://www.ualr.edu/coedpt>.

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 UALR's 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 I general knowledge 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 in the College of Education.
- 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 Rene Carson, Certification Coordinator, at 501-569-3113 or rtcarson@ualr.edu for information on Praxis scores, background check, and the provisional license.

Advanced Licensure Track

The advanced track is for persons who already are licensed to teach in Arkansas secondary schools. For more program information, visit the web site at <http://www.ualr.edu/coedpt/teached/secondaryed.htm>.

Admission Requirements (For both Initial and Advanced Tracks)

Please also see specific admission requirements for Initial and Advanced Tracks and the program coordinator for content area-specific admissions requirements.

All applicants must have:

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 370 on the Verbal Scale, 440 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 of at least 370 on the Verbal Scale, 440 on the Quantitative Scale, and 3.5 on the Analytical Writing scale. *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- plus the Praxis I.*
- *Praxis I* scores of 171 in mathematics (or 316 on the computer-based test), 172 in reading (or 319 on the computer-based test), and 173 in writing (or 319 on the computer-based test) or the stipulated scores on two of the tests and the Arkansas Department of Education's minimum score on one test.
- 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.

Advanced Track Admission Requirements

(In addition to the requirements for regular or conditional admission)

- Hold or be qualified to hold a valid teaching license for secondary schools. (Qualification to hold a teaching license includes completion of all required *Praxis* exams.)

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 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:

- Criminal records check: state civil record check and FBI record check. The student is responsible for the fees associated with these checks.

Retention Requirements

(For both Initial and Advanced 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.

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 7104 Curriculum Design Practicum
- 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
- 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

Advanced Track Program Requirements Professional Education Requirements (12 hours)

- TCED 7303 Reflective Teaching
- EDFN 7303 Introduction to Educational Research (or approved discipline-based educational research course)
- SCED 7302 Trends and Issues in Secondary Education Seminar
- SCED 7304 Action Research Project

Competencies (0-15 hours; typically 6-9 hours)

Students are required to demonstrate competence in the following areas. Students may demonstrate competence by portfolio in TCED 7303 or by receiving a satisfactory grade in one of the courses in parentheses after the area of competence or in a comparable course.

Commitment to students and their learning:

- SCED 5321; SPED 7103 & SPED 7203; EDFN 7313, EDFN 7320, or EDFN 7330

Mastery of content and content pedagogy:

- SCED 7201, SCED 7202, or content courses

Managing and monitoring student learning:

- SCED 7306; EDFN 7370; TCED 7341

Technology:

- TCED 5300 Workshop

Professional Contribution (Optional):

- TCED 7333 Supervision of Student Teaching

Advanced Track Required Concentrations (9-24 hours; typically 15-18 hours)

Students are required to complete a concentration of 9-18 hours in the subject area, an area of education, or in an approved interdisciplinary area. Students with more than 12 hours available for concentrations may elect a second concentration area.

Advanced Track Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study of at least 36 hours as outlined above
- Portfolio presentation and defense

Courses in Secondary Education

SCED 5150 Practicum in Teaching Reading in Secondary Schools

Co-requisite: SCED 5250. Supervised field base for putting theory into practice; students develop, apply teaching skills, strategies addressed in 5250; requires at least 40 clock hours in secondary classrooms.

SCED 5250 Teaching Reading in the Secondary Content Areas

Co-requisite: SCED 5150. Knowledge, techniques for teaching reading skills in various secondary education teaching fields; students develop a unit plan to be implemented in 5150.

SCED 5321 Teaching Diverse Adolescents

Prerequisites: Admission to MEd. In secondary education or admission to block 2 of the undergraduate secondary program. Students use basic concepts of adolescent development and cultural diversity to design lessons and to select and use teaching materials and techniques to meet the needs of students at different developmental stages and of different cultures.

SCED 5361 Teaching Adolescent Literature

Students will gain knowledge of adolescent development in literacy and literary skills. They will survey and examine a multi-culturally balanced selection of works of literature for adolescents and will learn to integrate reading and writing skills with adolescent literature.

SCED 7100, 7200, 7300 Workshop

Offered on demand.

SCED 7103 Supervised Clinical Teaching

Co-requisites: SCED 7202. Application of teaching skills and methods in area secondary schools with special attention to adapting state curricula, teaching plans and methods to multicultural and inclusive classes. Requires at least 30 clock hours in secondary schools.

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, 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.



Special Education

Dickinson Hall, 300, 419
569-3124, 569- 3267,
683-7088

Master of 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 emphases are offered in:

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 web site at http://www.ualr.edu/coeddept/teached/emphasis_1.htm.

Instructional Specialist 4-12

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 web site at http://www.ualr.edu/coeddept/teached/emphasis_3.htm.

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 370 on the Verbal Scale, 440 on the Quantitative Scale, and 4.5 on the Analytical Writing Scale

or

- Alternatively, a candidate may complete 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 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 MEd 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 portfolio of scholarship
- All candidates must pass *Praxis II* exam 20351, *Special Education: Knowledge-based Core Principles* and the appropriate *Praxis II Subject Assessment* for their Speciality Field
- Individual emphasis areas may have additional graduation requirements

Early Childhood Special Education

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 36 credit hours, including 15 education core area hours, 21 specialization hours, and 3 supervised practice hours.

Education Core Area Courses

- EDFN 7303 Introduction to Research
- SPED 7301 Foundations of Special Ed.
- SPED 7302 Technology in Special Ed.
- SPED 7305 Managing the Learning Environment
- SPED 7309 Seminar in Special Education

Specialization Courses

- AUSP 7393 Infant/Toddler Communication
- ECED 7343 Families, Early Development & Disabilities
- SPED 5312 Medical Problems
- SPED 7141 ECSE Clinical Experience I
- SPED 7142 ECSE Clinical Experience II
- SPED 7144 Collaboration in the Field
- SPED 7341 ECSE Assessment/Intervention I
- SPED 7342 ECSE Assessment/Intervention II
- SPED 7344 Collaborative Partnerships

Instructional Specialist 4-12

Program Requirements

The special education emphasis, instructional specialist 4-12, 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 7301 Foundations in Special Education
- SPED 7302 Technology and Special Education
- SPED 7305 Managing the Learning Environment
- SPED 7309 Seminar in Special Education

- EDFN 7303 Introduction to Research

Instructional Specialist 4-12 Core Courses

- SPED 7206 Families and Individuals with Disabilities
- SPED 7344 Collaborative Partnerships
- SPED 7351 Assessment and Instructional Design I
- SPED 7352 Assessment and Instructional Design II
- SPED 7353 Transition and Life Adjustment
- SPED 7292 Field Experience I
- SPED 7295 Field Experience II
- SPED 7296 Field Experience III
- SPED 7154 Physical and Health Management

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

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 of 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.

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. F, Su

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, multidisabled, 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 7194 Practicum in Visual Impairment I

Co-requisite: SPED 7320. First in a series of supervised practica. A work 120 clock hour experience. Candidates work under faculty supervision; emphasis on completion of unique assessments of students with visual impairments.

SPED 7195 Practicum in Visual Impairment II

Co-requisite: SPED 7321. The second experience in a series of three supervised practica. A 120 clock-hour experience during which candidates work under faculty supervision; emphasis on assessment and instructional design activities for student with visual impairments in elementary and secondary curricular programs; the expanded core curriculum for students with visual impairments; psychosocial issues; and transition to adulthood.

SPED 7196 Practicum in Visual Impairment III

The third experience in a series of three supervised practica. A 120 clock-hour experience during which candidates work under faculty supervision. Emphasis on the expanded core curriculum for students with visual impairment, including those with additional disabilities, and instruction in technology skills, daily living skills, social skills.

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 7222 Mathematics Tools and Techniques for Students with Visual Impairments

Skills of reading and writing Nemeth Code for transcription of mathematics and science, including correct spatial and linear format; use of Cranmer Abacus for computations involving whole numbers, fractions, and decimal values; preparation of tactile graphics for instructional use with Braille readers; other tactile tools and techniques.

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 coursework, 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 7320 Assessment and Instructional Design for Students with Visual Impairments I

Co-requisite: SPED 7194. Foundations of teaching students with visual impairments: history, legal foundations, current demographics, and eligibility decision-making. Impact of visual impairment on child development; impact of additional disabilities. Principles of assessment, including ethical implications. Aspects of assessment and instructional design, including functional vision evaluation, and learning media assessment. Working with families of students with visual impairments; multicultural concerns.

SPED 7321 Assessment and Instructional Design for Students with Visual Impairments II

Co-requisite; SPED 7195. Accommodations to the standard elementary and secondary curriculum for students with visual impairments, including those with low vision and blindness; academic assessment. Instruction in Braille literacy; assessment and instruction in the expanded core curriculum for student with visual impairments; psychosocial issues; transition to adulthood; assessment and instruction for students with additional disabilities.

SPED 7323 Methods of Orientation and Mobility for the Classroom Teacher

Practical application of pre-cane orientation and mobility techniques used by the blind child, adolescent; emphasis on use of residual senses to perceive, integrate, react to environmental stimuli; fundamental principles, theory of sensory information acquisition by persons with severe visual disabilities, as they apply to the classroom teacher. Offered in summer.

SPED 7325 Physiology of the Human Visual System

Structure and function of the human visual system; diseases and disorders of the human visual system and their impact on the development and education of children and adolescents. Systemic conditions commonly associated with visual disabilities in childhood. Classroom implications of eye disorders. Tools and techniques for enhancing visual functioning in the classroom and elsewhere.

SPED 7327 Standard English Braille

Skills of reading and writing fully contracted Standard English Braille, including transcription rules and formats appropriate for instructional materials; use of slate and stylus; use of Perkins Braillewriter; essential elements of other tactile codes including the Braille music code and computer code.

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 7341 ECSE Assessment and Intervention I

Prerequisites: SPED 7301, SPED 7302, SPED 7305. Co-requisite: SPED 7141. Curriculum, materials, instructional adaptations for developing individual education programs for handicapped preschool children; techniques for infant intervention, training activities; psychomotor, cognitive, affective domain; particular attention to activities to facilitate language development.

SPED 7342 ECSE Assessment and Intervention II

Prerequisites: SPED 7301, SPED 7302, SPED 7305. Co-requisite: SPED 7142. This is the second course in a two-course sequence addressing assessment and intervention strategies for young children with disabilities. The course provides the student with focused experiences in the areas of adaptive, motor, cognitive and communication development. Additionally, the course examines strategies for linking individualized intervention plans (IFSP/IEP) to lesson plans, the role of technology in accessing the curriculum, and the importance of continuous and systematic data collection to guide the intervention process.

SPED 7343 Disability Law

Advanced study in state, federal laws, litigation, policies, and administrative practices relevant to education, employment, treatment of individuals with disabilities; includes historical development, current issues.

SPED 7344 Collaborative Partnerships

Prerequisites: SPED 7301, SPED 7305. Co-requisite: SPED 7144, for candidates in ECSE. Philosophies, roles, services of various professionals providing services for young children with disabilities; emphasis on transdisciplinary approach to team functioning, but includes other team models, strategies, problem solving approaches; methods for identifying resources in communities; includes guest professionals from various disciplines, area service agencies discussing their roles in providing services, the specific services they provide.

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 7292 Field Experience I. It is suggested that this course be taken concurrently with SPED 7295 Field Experience II. 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
Co-requisite: SPED 7296 Field Experience III. 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 7367 Advanced Behavioral Analysis and Management

Prerequisite: introductory course in behavior analysis/behavior management. Current issues and research in applied behavioral analysis; cognitive behavioral and emerging management procedures relevant for application in a variety of settings with individuals or groups at a variety of developmental levels; emphasis on application of research and on teaching parents and professionals to utilize procedures.

SPED 7368 Special Education Seminar

Prerequisite: completion of 18 graduate hours. Current topics, trends, and issues in special education: recent developments in litigation and legislation, state policies and procedures, current research in programming for students, effective teaching practices, and recent research developments; history of the field and major contributors. Intended for any graduate education major. Offered in spring.

SPED 7369 Advanced Instructional Methods and Inclusive Strategies

Prerequisite: course in instructional methods for the mildly handicapped; course in applied behavior analysis. Preparation for teachers to deliver effective instruction to children with diverse educational needs in a variety of educational settings; providing interventions and assistance in the regular classroom and the special education resource room, implementing both a "direct instruction" teaching model and an indirect consulting teacher model for inclusive settings; procedures for consulting, research literature on instructional procedures, consultation strategies and model programs, implications for practice. Offered in fall.

SPED 7372 Current Issues and Literature in Deafness

Prerequisite: consent of instructor. History, education, specific research literature related to persons with profound hearing impairment; important issues, current events in education of hearing-impaired children; requires creating framework, outline for an instructional program.

SPED 7379 Deafness Research in Action

Prerequisite: Special Education 7372. Refinement, expansion, field-based implementation of instructional program created in Special Education 7372; students carry out their projects, evaluate them through data collection and analysis techniques, produce scholarly papers reporting on them.

SPED 7395, 7495, 7695 Internship

Prerequisite: consent of instructor. Offered on demand.

Courses in Teaching Students who are Deaf or Hard of Hearing

TDHH 5301 Foundations of Education for Students who are Deaf or Hard of Hearing Students

This Foundations course is a broad-based introductory course to the profession of Teaching Students who are Deaf or Hard of Hearing. This course articulates the historical background, philosophical approaches, and current trends, problems, and issues in the education of the deaf and hard of hearing. An overview of the psychological, emotional, and educational problems of the deaf and hard of hearing is included. Knowledge of contemporary educational processes and programs for deaf or hard of hearing infants, children, and adolescents are incorporated into the course content.

TDHH 7107 Media and Instructional Technology for Deaf and Hard of Hearing Students

This course provides a brief overview of available technologies for the deaf and hard of hearing. Emphasis is placed on the use of various technologies used in the education of deaf and hard of hearing students including those with additional exceptionalities.

TDHH 7143 Field Experience I- Deaf/Hard of Hearing

Co-requisite: TDHH 7303. This course is one in a series of three field experience courses in which candidates will be exposed to the various communication modes, languages, and methods of instruction used to educate students who are deaf or hard of hearing. During the 50 clock hours required for each of these field experience courses candidates will be provided the opportunities for observing, assisting and providing one-to-one or small group instruction of students who are deaf or hard of hearing in various settings which might include early childhood settings, day classes, residential school settings or itinerant placements. The course will allow the candidate the opportunity to observe and engage in the implementation of specific strategies used for speech and auditory training of students who are deaf or hard of hearing. Cooperating teachers and a university supervisor will supervise the candidates.

TDHH 7144 Field Experience II- Deaf/Hard of Hearing

Co-requisite: TDHH 7304. This course is one in a series of three field experience courses in which candidates will be exposed to the various communication modes, languages, and methods of instruction used to educate students who are deaf or hard of hearing. During the 50 clock hours required for each of these field experience courses candidates will be provided the opportunities for observing, assisting and providing one-to-one or small group instruction of students who are deaf or hard of hearing in various settings which might include early childhood settings, day classes, residential school settings or itinerant placements. The course will allow the candidate the opportunity to observe and engage in the implementation of specific strategies used for teaching academic subjects to students who are deaf or hard of hearing. Cooperating teachers and a university supervisor will supervise the candidates.

TDHH 7145 Field Experience III- Deaf/Hard of Hearing

Co-requisite: TDHH 7305. This course is one in a series of three field experience courses in which candidates will be exposed to the various communication modes, languages, and methods of instruction used to educate students who are deaf or hard of hearing. During the 50 clock hours required for each of these field experience courses candidates will be provided the opportunities for observing, assisting and providing one-to-one or small group instruction of students who are deaf or hard of hearing in various settings which might include early childhood settings, day classes, residential school settings or itinerant placements. The course will allow the candidate the opportunity to observe and engage in the implementation of specific strategies used for teaching reading and written languages to students who are deaf or hard of hearing. Cooperating teachers and a university supervisor will supervise the candidates.

TDHH 7206 Deaf and Hard of Hearing Students with Additional Exceptionalities

This course provides an overview of additional exceptionalities that are frequently found in infants, children and youth who are deaf or hard of hearing and how these combinations of exceptionalities create unique and individual educational needs. This course promotes the acceptance of diversity among deaf and hard of hearing students and emphasizes assessment, instructional methods and modifications, and management within the learning environment. Cultural diversity and societal attitudes will also be covered in this course.

TDHH 7302 Language Development for Deaf and Hard of Hearing Students

This course provides an in-depth empirical study of several theories of language acquisition, with a focus on educational applications with deaf children. Multiple pathways to language learning will be emphasized in this course. Students will develop skills necessary to assess language development and provide language instruction to learners who are deaf or hard of hearing. Various methods and philosophies of language development for the deaf or hard of hearing will be discussed.

TDHH 7303 Speech and Aural Habilitation for Deaf and Hard of Hearing Students

Co-requisite: TDHH 7143. This course provides a theoretical framework for the principles and procedures used to teach speech to children who are deaf and hard of hearing. This course also provides an in-depth study of the principles and practices used in aural habilitation of children with a hearing loss. Techniques for assessing and teaching oral communication will be emphasized in this course.

TDHH 7304 Curriculum Methods & materials for Deaf and Hard of Hearing Students

Co-requisite: TDHH 7144. This course presents instructional methods and materials for teaching, developing or modifying curriculum to meet the individual needs of deaf and hard of hearing students in the academic subject areas of science, social studies, math, and language arts. Assessment and how it relates to instruction is emphasized throughout this course. This course also focuses on development of lesson plans, unit plans, activity plans, comprehensive individual evaluations, individualized education plans, and comprehensive report writing. The roles and responsibilities of educational consultants and itinerant teachers will also be addressed.

TDHH 7305 Literacy and Deafness: Instructional Methods

Co-requisite: TDHH 7145. This course will provide an overview of the literature in the areas of reading theory, applications, and diagnostic procedures. Students will develop knowledge and skills in the techniques and strategies for teaching reading and written language to students who are deaf or hard of hearing. This is a technology intensive course and will emphasize the inclusion of technology in the instruction of students who are deaf and hard of hearing.

Teaching the Gifted and Talented

Dickinson Hall, 419
569-8930 or 569-3410

Graduate Certificates and Master of Education

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 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 web site at <http://www.ualr.edu/coedep/edleader/gifted.html>. 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.

Graduate Certificate in Gifted and Talented Education

The Graduate Certificate in Gifted and Talented Education prepares students to complete their licensures in Gifted and Talented Education. It is a K-8 and/or 7-12 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.

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

Master of Education

Admission Requirements

See previous section for "Regular and Conditional" criteria.

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

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.

GATE 7193, 7293, 7393 Special 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 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.



Geospatial Technology

FH 310, 569-3024

Graduate Certificate

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;
- Create appropriate maps;
- Demonstrate competence in working with standard geospatial data (i.e., digital elevation models, digital line graphs, orthophotography, and satellite imagery);
- 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 2.7

Program Requirements

Program requirements for the Geospatial Technology Certificate program are 18 hours, including the following courses:

Core Courses (8 hours):

ERSC 5421 Introduction to GIS
ERSC 5422 Applied 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 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.

Graduate Certificate and Master of Arts

The Graduate Gerontology Program equips student 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 multi-disciplinary and is designed to serve professionals in a range of occupations, including social workers, rehabilitation counselors, administrators, health care workers, health educators, attorneys, as well as professionals from the business sector.

The Gerontology Program offers both a Graduate Certificate (21 credit hours) as well as a Master of Arts in Gerontology (36 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 Master of Arts degree in Gerontology is available for those participants who wish to pursue an academic degree in the and behavioral aspects of aging and prepare to work with the aging population and aging programs.

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 internship experiences that meet the personnel needs of both public and private agencies. MA students may also elect to do a thesis or an applied research option where students perform an actual program evaluation or needs assessment.

Graduate Certificate

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.

Program Requirements

The certificate program requires the 12 core credit hours in gerontology. The certificate requires an additional 9 hours of approved elective credit for a total of 21 credit hours.

The certificate requires 21 graduate level hours. The following courses (12 hours) are required:

- SOWK 8321 Biology and Psychology of Aging
- GERO/SOWK/SOC 5310 Social Gerontology
- SOWK 8329 Aging and Social Policy I
- SOWK 8291 and SOWK 8191 Resources and Services for Older Adults

Certificate students choose 9 hours of elective credit. Approved elective courses include:

- GERO 5315 Interdisciplinary Health Care of the Elderly
- GERO 5336 Social Aspects of Death and Dying
- SOWK 5330 Animal Assisted Therapy

- SOWK 8211 and 8191 Social Work Practice with Older Adults
- SOWK 8380 Assessment and Case Management with Older Adults
- SOWK 8346 Family in Late Life
- SOWK 8340 Aging and Social Policy II
- SOWK 8309 Intergenerational Family Therapy
- SOWK 8305 Management and Community Practice I
- SOWK 8306 Management and Community Practice II
- SOWK 8159 and 8259 Evaluation Research
- HSAD 5123 The Health Care System
- HSAD 5143 Management of Health Care Organizations
- PADM 7336 Nonprofit Organization Management
- SOWK 8218 and 8191 Loss and Grief
- Coursework from other disciplines with content related to the field of gerontology may be approved for elective credit in consultation with the program coordinator.

Graduation Requirements

Cumulative GPA of at least 3.0 on an approved program of study as outlined above

Master of Arts

Admission Requirements for MA in Gerontology

The certificate in applied gerontology is not a terminal degree and students may elect to continue for the MA after qualifying for the certificate. Upon completion of 12 hours towards the certificate in Gerontology, participants with a GPA of 3.25 or higher who wish to continue on for the MA degree should submit:

- Graduate Record Examination, Miller Analogies Test or similar examination scores.
- Two letters of reference, recommending them to the MA program
- A letter of intent, detailing their interest and commitment to the field of aging

Program Requirements

Both the certificate and MA degree require the 12 core credit hours in gerontology. MA students also take 12 credit hours of approved elective coursework. Students completing the MA degree are also required to take the Graduate Statistics (SOWK 8371) and Evaluation Research (SOWK 8159 & SOWK 8259); comparable courses offered in other disciplines may be substituted with the approval of the program coordinator. In addition, MA students complete six field work or thesis hours. Students choosing the applied research project option take the research practicum course and three hours of field work or additional elective credit. A portfolio may be required.

Both the Gerontology Certificate and the MA require the following four core courses (12 hours):

- SOWK 8321 Biology and Psychology of Aging
- GERO/SOWK/SOC 5310 Social Gerontology
- SOWK 8329 Aging and Social Policy I

- SOWK 8291 and 8191 Resources and Services for Older Adults

Certificate students choose 9 hours of elective credit, MA students choose 12 hours of elective credit. Approved elective courses include:

- GERO 5315 Interdisciplinary Health Care of the Elderly
- GERO 5336 Social Aspects of Death and Dying
- SOWK 5330 Animal Assisted Therapy
- SOWK 8211 and 8191 Social Work Practice with Older Adults
- SOWK 8380 Assessment and Case Management with Older Adults
- SOWK 8346 Family in Late Life
- SOWK 8340 Aging and Social Policy II
- SOWK 8309 Intergenerational Family Therapy
- SOWK 8305 Management and Community Practice I
- SOWK 8306 Management and Community Practice II
- SOWK 8159 and 8259 Evaluation Research
- HSAD 5123 The Health Care System
- HSAD 5143 Management of Health Care Organizations
- PADM 7336 Nonprofit Organization Management
- SOWK 8218 and 8191 Loss and Grief
- Coursework from other disciplines with content related to the field of gerontology may be approved for elective credit in consultation with the program coordinator.

Additional required coursework for the MA in Gerontology

- SOWK 8371 Graduate Statistics
- SOWK 8159 & SOWK 8259 Evaluation Research

Fieldwork, Thesis or Applied Evaluation Project Options

- GERO 8310 Field Work I and
- GERO 8320 Field Work II or
- GERO 8630 Thesis or
- GERO 7350 Research Practicum and GERO 8310 Field Work I or Elective

Graduation Requirements

- Cumulative GPA of at least a 3.0 on an approved program of study as outlined above
- Successful completion of field work, written thesis and oral defense, or written and oral presentation of an applied evaluation project

Courses in Gerontology

GERO 5310 Social Gerontology

Prerequisite: graduate standing. Normal process of senescence (as opposed to pathological accompaniments of aging due to stress, disease, trauma); focus on sociological theories of aging, social consequences of demographic and epidemiological processes in an aging society.

GERO 5315 Interdisciplinary Health Care of the Elderly

Health care 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

Prerequisite: graduate standing. Death, dying, and bereavement in contemporary society; emphasis on practical application of knowledge in the field of practitioners dealing with death, dying, bereavement.

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.

Courses in Social Work

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 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 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 8210 Social and Emotional Implications of Illness and Disability

Prerequisite: graduate standing. Health care issues, problems; variety of social work practice dimensions; social, emotional components; reciprocal relationships of health, psychosocial cultural processes; social work practice in a multidisciplinary environment.

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 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 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 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 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 8321 Biology and Psychology of Aging

Consequences of normal aging processes (distinguished from age-related disease processes), extension of life expectancy; interrelationship of biology, behavior; age-related physiological/anatomical changes that affect health; epidemiological studies of disease and aging; psychosocial, cognitive factors of aging and memory of learning, psychopathology affecting mental health.

SOWK 8329 Aging and Social Policy I

Prerequisite: graduate standing. Policy creation process, problem analysis as it bears on aging, the elderly; political organization of the elderly, their participation in national, state, local policy processes; leading organizations exerting influence in age-related matters; techniques of policy advocacy on behalf of the elderly; substantive policy issues such as retirement, income security, health care, institutionalization, housing, community services.

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 8380 Assessment & Case Management with Older Adults

Prerequisites: graduate standing, statistics and social or behavioral research methods courses or consent of instructor. Methodologies essential to planning, management, and evaluation of human service programs; emphasis on client assessment, community needs assessment and resource inventory, program impact assessment, program evaluation; includes issues of program design and reorganization based on data generated by these methods; requires writing program recommendations, research report.

Master of Science

The Master of Science in Health Sciences degree focuses on three graduate-study emphasis areas: (1) health education, (2) exercise science, and (3) sports 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. 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 of 1,000 on the verbal and quantitative sections.
- 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 sciences 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 MS in Health Sciences 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 Sciences 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 Sciences 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 Sciences must complete the following three core courses:

- HSCI 7301 Research Methods in Health Sciences
- HSCI 7302 Basic Statistics in Health Sciences
- HSCI 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:

- HSCI 7310 Theoretical Foundations of HLED
- HSCI 7311 Concepts & Methods HLED
- HSCI 5430 Epidemiology
- Electives (8 hours)
- HSCI 7699 Thesis Preparation (6 hours) plus HSCI 7313 Advanced Stats for HSCI (3 hours), *or*
- HSCI 7698 Project Preparation (6 hours) plus HSCI 7314 HLED Curriculum Dev (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):

- HSCI 7320 Curriculum Dev in PE
- HSCI 7321 Advanced Motor Learning
- HSCI 7322 Admin of PE & Sport
- HSCI 7323 Biomechanics
- HSCI 7324 Advanced Exercise Physiology
- Electives (6 hours)
- HSCI 7699 Thesis Preparation (6 hours), *or* HSCI 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):

- HSCI 7330 Management & Leadership in Sport Organizations
- HSCI 7331 Sport Law
- HSCI 7332 Planning & Management of Facilities
- HSCI 7333 Issues & Ethics in Sport Management
- HSCI 7334 Sport Marketing
- HSCI 7335 Event Development & Management
- HSCI 7336 Fiscal Management of Sport Organizations
- Electives (3 hours)
- HSCI 7699 Thesis Preparation (6 hours), *or* HSCI 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 Sciences

HSCI 5330 Activity and Sports Management

This course is a study of the organization and administration of programs in physical education and sports. Topics include the development of administrative policy regarding budget, finance, marketing, philosophy, public relations, facilities, sports law, and program management. Three hours lecture per week.

HSCI 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.

HSCI 5350 Methods and Techniques of Teaching Physical Education 6-12

This course is a study of the methods and techniques of teaching physical activity in high school physical education programs. Emphasis is on the opportunities to learn about organizing and planning programs, developing lesson plans, selection of activities, and evaluation procedure. Three hours lecture per week.

HSCI 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 on even years.

HSCI 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.

HSCI 5378 Organization and Administration of Health Education Programs

Prerequisites: HSCI 2303 or department approval. Designed to provide a foundation in the organization and management of community-based health education programs. Students will explore, in depth, theories, models, strategies, and methods of application to prevent and solve societal health problems. Three hour lecture; one hour lab.

HSCI 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.

HSCI 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.

HSCI 7302 Basic Statistics in Health Sciences

A study of fundamental statistical concepts and techniques including descriptive and inferential parametric/non-parametric tests.

HSCI 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.

HSCI 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.

HSCI 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.

HSCI 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 HSCI 7302 (or equivalent) and permission of instructor required for enrollment.*

HSCI 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.

HSCI 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.

HSCI 7321 Advanced Motor Learning

This course focuses on the advanced study of principles/theories of human motor learning, behavior and performance.

HSCI 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.

HSCI 7323 Biomechanics

This course is designed to provide an advanced study of biomechanical concepts and their application to human movement and sport skills.

HSCI 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.

HSCI 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.

HSCI 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.

HSCI 7331 Sport Law

This course is a study of legal issues affecting the delivery of sport services; focuses on liability in sport activities.

HSCI 7332 Planning and Management of Facilities

This course is designed to develop student understanding of the competencies necessary to manage and operate sport, recreation, physical education, and public assembly facilities. Additionally, the conceptual and technical aspects related to the planning and design of recreation and athletic facilities will be addressed.

HSCI 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.

HSCI 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.

HSCI 7335 Event Development and Management

This course is designed to provide students with the skills necessary to develop, propose and conduct sport-related contests and special events including game management and facility.

HSCI 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.

HSCI 7699 Thesis

All students must pass comprehensive examinations before enrolling in this course. Prerequisites for Health Education: HSCI 7301, 7302, 7303, 7310, 7311, 5430, 7313. Prerequisites for Exercise Science: HSCI 7301, 7302, 7303, 7320, 7321, 7322, 7323, 7324. Prerequisites for Sports Management: HSCI 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.

HSCI 7698 Project

All students must pass comprehensive examinations before enrolling in this course. Prerequisites for Health Education: HSCI 7301, 7302, 7303, 7310, 7311, 5430, 7314. Prerequisites for Exercise Science: HSCI 7301, 7302, 7303, 7320, 7321, 7322, 7323, 7324. Prerequisites for Sports Management: HSCI 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.



Information Quality

EIT 550, 569-8951

Master of Science and Graduate Certificate 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, who because of distance or other circumstances cannot attend on-campus classes on a regular basis, to participate in the program using Internet-based technologies. For more information, please visit the program's web site at <http://technologize.ualr.edu/msiq/>.

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.
- Statement of Intent
- Resume
- 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.

- 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 count towards minimum course requirements.
- Thirty-three (33) credit hours, consisting 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

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

Electives

One Course from the following list:

INFQ 7318 Total Quality Management and Statistical Quality Control

INFQ 7337 Project and Change Management

INFQ 7353 Case Studies for Information Quality

Professionals

INFQ 7367 Information Quality Policy and Strategy

One Course from the following list:

IFSC 5325 Data Mining Concepts and Techniques

IFSC 5330 Database Security

IFSC 7325 Advanced Data Mining

IFSC 7360 Data Protection and Privacy

MGMT 7308 Advanced Business Communication

MGMT 7312 Team Development

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.

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

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.

All students in the program can 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.

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.

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.

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 and Statistical Quality Control

INFQ 7322 Information Quality Theory

INFQ 7337 Project and Change Management

INFQ 7353 Case Studies for Information Quality Professionals

INFQ 7367 Information Quality Policy and Strategy

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

<http://www.ualr.edu/gradschool/prospectivestudents.asp>.
Certificate program code is INFQ-GC.

For more information about the Graduate Certificate in Information Quality, contact the program coordinator.

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 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 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 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 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, steganography, Internet security, and control and prevention of viruses and other rogue programs.

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.

Integrated Computing

*Computer Science, EIT
579, 569-8130*

*Information Science,
EIT 550, 569-8951
Systems Engineering,
EIT 518, 569-3100*

Doctor of Philosophy

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: Computer Science, Information Science, and 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:

Computer Engineering

The Computer Engineering track focuses on the integration of hardware components and system software to optimize the computer systems that are part of the technical infrastructure that supports an organization's application and information needs. This emphasis area is sponsored by the department of Systems Engineering.

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. This emphasis area is sponsored by the departments of 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. This emphasis area is sponsored by the department of Computer Science.

Information Science

The Information Science track focuses on the theory, applications, technologies, and systems that classify, manipulate, store, retrieve, and disseminate information. This emphasis area is sponsored by the department of 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. This emphasis area is sponsored by the department of 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 web site 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 1100 or above (1600 scale). 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., 4.5 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 PhD 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 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. 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 coursework 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.

Writing Requirement

An English Writing Proficiency Exam (WPE) will be offered each Fall 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 fall term. The student must take the EWPL each fall term until they pass.

Seminar Requirement

All PhD students should register for either the Integrated Computing Research Seminar or the Ethics Seminar each semester while they are in the program. These weekly seminars are designed to encourage multidisciplinary collaborations, highlight research advances in a variety of computing and information technologies, and to educate the doctoral student on ethical issues in the discipline. Although required, these seminar hours do not count towards the overall credits requirements needed for graduation.

Doctor of Philosophy Graded Program Requirements

The program requires a minimum of 72 hours beyond the Baccalaureate degree. Specific requirements depend on the track area chosen and are detailed in this section. A minimum of thirty (30) 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 (30) credit hours of course-work must include nine (9) credit hours of General Core classes, twelve (12) credit hours of Primary Track courses, and a minimum of nine (9) credit of electives. 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 theory course;
- a trio of 1 credit courses covering research methods, tools, and applications.

Each track core consists of four courses designed to give students the necessary depth in their specific area of concentration. In addition, student 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.

Transfer of Credit

Transferability of credit is determined by the student's advisory committee based upon the applicability of the courses selected for dissertation work and the student's educational goals. 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 coursework from other institutions based upon the applicability of the courses to dissertation work and 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 better. 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.

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. Each topic area corresponds to a particular course taken by the student. Two topic areas are chosen from the student's general core. The remaining two topic areas are selected from the student's particular track 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 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) year of completing their primary track course requirements and in any event, no later than the beginning of the fifth semester in the program. Extensions may be granted in the event of special circumstances such as a serious medical episode, pregnancy, or military deployment. A minimum GPA of 3.0 in the student's graduate candidacy coursework area is required to take the examination. Upon successful completion of the candidacy exams, the student will be granted candidacy status.

Candidacy Subjects

Students will be tested in these two areas from their general core.

1. either a systems analysis/design course or a software engineering course
2. an information science theory course

Students will choose their remaining two candidacy exam topics from their respective track area.

Computer Engineering Emphasis Area

- Computer Architecture
- Digital Systems
- Operating Systems
- Coding Theory

Net Integrated Computing Emphasis Area

- Telecommunications
- Communications Networks
- Sensor Networks
- Optical Networks

Computer Science Emphasis Area

- Telecommunications / Networks
- Computer Architecture
- Algorithms
- Computer / Software Security

Information Science Emphasis Area

- Information Visualization
- Database Design
- Data Protection & Privacy
- E-commerce

Information Quality Emphasis Area

- Database Design
- Information Quality Principles
- Information Quality Research and Theory
- Information Quality Policy and Strategy

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 coursework, 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 PhD degree, students must prepare and successfully define a written dissertation in accordance with the format and procedure dictated by the UALR Graduate School. Students will orally defend their completed PhD 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 any writing, seminar, or ethics requirements.

Additional Program Requirements:

- A maximum of two (2) 5000-level courses may be applied toward the PhD 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 PhD degree.
- Only two (2) special topic courses can be applied toward the PhD 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.

Courses Used in 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.

Courses in Integrated Computing

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

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. (3 credits)

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)

CPSC/IFSC/SYEN 7101, 7102, 7103 Research Methods

These courses introduce the research methodology component to facilitate development of expertise in research design and assessment. Research examples will be drawn from work that exemplifies the interconnecting research opportunities across the five track areas. This requirement is to be completed as 3, 1-credit courses in the first three semester's of a student's study, by the end of which a student will be expected to have completed not just his/her candidacy exams, but also to have drafted a near-final copy of their Ph.D. research proposal (3 courses, 1 credit each).

Primary Track Course Descriptions - Computer Engineering Emphasis Area

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).

SYEN 5366: Advanced Digital Systems

Advanced design principles for digital systems, 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. (3 credits)

SYEN 7332: Advanced Operating System Design or CPSC 7321 Operating Systems

SYEN 7332 has prerequisites of SYEN 5332 or consent of the instructor and covers design principles of modern schedulers, multi-processor systems, protection and security components, OS tools, and IP stacks. The graduate students 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 Linux scheduler, signal handler, shared memory control, virtual memory management, and case studies of device drivers. (3 credits). CPSC 7321 has prerequisites of CPSC 3380 and 3482; working knowledge of C, C++, or Java Programming Language, and UNIX and covers advanced topics in operating systems; process synchronization, deadlock, concurrency; fault tolerance, protection and security; distributed operating systems, multiprocessor operating systems. (3 credits)

SYEN 7355: Essentials of Coding Theory (New Course)

Prerequisites: SYEN 5353 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. (3 credits)

Primary Track Course Description - 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 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)

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).

Primary Track Course Descriptions - Information Science Emphasis Area

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)

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 7350E-Commerce

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. (3 credits)

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.

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).

Integrated Science and Mathematics

Engineering Technology
and Applied Science
(ETAS) 125
569-3247

Master of Science

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 within the College of Science and Mathematics, allowing them to design a program to suit their needs. Courses address the challenges and methods of study in such areas as 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 combined score of 950 on the verbal and quantitative sections of the GRE general section, and a minimum score on the writing assessment of 4 out of 6. 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 195 on the computer-based version.

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 Science and Mathematics. The course work curriculum must be approved by the student's advisor and by the Integrated Science Program Director.

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: 1) identify a scientific problem, 2) design a plan to examine the problem, 3) carry out the plan, 4) interpret the results of the study, and 5) defend the interpretations in the form of an oral defense. A formal written thesis document is required. The

UALR *Dissertation and Thesis Guide*, available at <http://gradschool.ualr.edu/>, provides 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.

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.

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.

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

Environmental Health Sciences - Health Sciences

- 18 credit hours in environmental health sciences and health sciences
- 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

Some of the other possible degree combinations are listed below. Please contact the program director to discuss additional degree combinations.

- Biology - Physics
- Chemistry - Earth Science
- Chemistry - Physics
- Earth Science - Physics
- Environmental Health Science - Earth Science
- Biology - Health Sciences

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," the "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.

Journalism

Stabler Hall
569-3250

Master of Arts

The Master of Arts in Journalism 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 journalism 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 journalism and public relations.

The program is open to students with undergraduate majors or minors in journalism, to working journalists, and to those without journalism backgrounds who are willing to complete several undergraduate journalism 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

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. If these transcripts do not show all hours earned in journalism or mass communication, additional transcripts with this information must be sent to the journalism graduate program coordinator. The letters of recommendation, résumé, and the applicant's letter outlining professional goals should be sent to the journalism graduate program coordinator. 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 journalism graduate program offers three options: thesis, non-thesis, and professional. A comprehensive project and at least 30 weeks 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 journalism graduate program coordinator may make exceptions to this rule, if circumstances warrant them.

Students who have not studied journalism at the undergraduate level or who do not have sufficient professional journalism experience to master basic news writing, reporting, and editing skills will be required to complete any or all of the following courses:

- JOUR 2350 Techniques of Writing for the Mass Media
- JOUR 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 journalism should take MCOM 5352, News Media and the First Amendment. This class should be completed, either at the graduate or undergraduate level, before taking JOUR 7330, Seminar in Mass Communication Law. Students without a solid knowledge of mass communications history should consult with the journalism

graduate program coordinator about how to overcome that weakness.

Program Options

Thesis Option

Requires 30 graduate credit hours, including JOUR 7305, the student's choice between 7335 or 7340, course work of at least 6 additional 7000-level hours, and a 6-hour thesis with oral defense (JOUR 8000).

Non-thesis Option

Requires 30 graduate credit hours, including JOUR 7305, the student's choice between 7335 or 7340, and at least 12 additional 7000-level hours.

Professional Option

Requires 33 graduate credit hours, including JOUR 7305, the student's choice between 7335 or 7340, course work of at least 9 additional 7000-level hours, and an approved professional project (Journalism 7180, 7280, 7380).

Transfer Credit

Up to six graduate hours with grades of B or better may be transferred from an accredited institution, if approved by the journalism 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, including its own statewide news service.

Graduate Assistantships

A limited number of graduate assistantships are 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 comprehensive project
- Successfully complete and orally defend a thesis, if applicable

Students who do not achieve a 3.0 GPA within the required hours may complete up to 6 additional hours approved by the coordinator. If the average is not then at least 3.0, the student may not continue in the program.

Courses in Journalism

JOUR 5360 Editorial Writing

Media's comment function, policies, problems.

JOUR 7180, 7280, 7380 Special Problems in Journalism

Prerequisite: consent of a graduate faculty member. Individual work on selected problems in journalism.

JOUR 7190, 7290, 7390 Readings in Mass Communication

Prerequisite: consent of a graduate faculty member. Individual readings of selected works in mass communication.

JOUR 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.

JOUR 7310 Precision Journalism

Application of behavioral science methodology to news reporting, especially to reporting of governmental, public affairs.

JOUR 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.

JOUR 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.

JOUR 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.

JOUR 7330 Seminar in Mass Communication Law

Prerequisite: Journalism 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.

JOUR 7335 Seminar in Journalism Quantitative Research

Prerequisite: Journalism 7310 or equivalent. Methodological approaches to the study of mass communication structure, processes, effects; emphasis on survey and experimental research procedures and content analysis.

JOUR 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.

JOUR 8000 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.

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 7300 Pro-seminar in Journalism

Introduces graduate students to journalism 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.

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.



Master of Arts

The Master of Arts in Liberal Studies (MALS) 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 MALS degree choose program emphases and design unique curricula in consultation with the MALS graduate program coordinator.

The MALS 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 web site at <http://www.ualr.edu/mals>

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 1000 words describing the applicant's background and preparation (educational, professional, etc.) as well as specific interests and interdisciplinary goals within the MALS program.
- Two recommendation letters addressing the candidates background and potential for success in graduate study (letters may come from a various sources: preferably academic, then professional or volunteer, etc.). 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 produced any scholarly or artistic work in one of your chosen disciplines of study for the MA in Liberal Studies Program, which work would it be? 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 MALS 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 MALS degree requires 36 credit hours of graduate course work, 40% of which can be at the 5000 level. The requirements are as follows:

Core courses

- LIST 7310 Introduction to Liberal Studies: 3 hours
- LIST 7390 Liberal Studies Colloquium: 3 hours
- Courses in one AHSS discipline: 15 hours
- Courses in one or two other disciplines: 9 hours
- Thesis/Final Project: 6 consecutive hours

Courses for the primary area in MALS come from a discipline within the College of Arts, Humanities, and Social Sciences (AHSS) and will include research methodology and practice in the discipline. AHSS departments that currently provide 15 hours of primary content courses for the MALS degree include Anthropology, Art History, Studio Art, English, History, Second Language Studies, Music, Psychology, and Rhetoric and Writing. Other departments such as

Philosophy, and Political Science may also be able to offer 15 hours. 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 AHSS departments listed above can provide the secondary nine-hour segment. These nine hours may, with permission of the program coordinator, be outside AHSS; for example, Gerontology, Criminal Justice, Social Work, Communication, Education or Journalism. Note that individual departments enforce pre-requisite requirements for coursework and may have other restrictions.

Program Options

The MALS 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 MALS 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 MALS website for further details.

Graduation Requirements

The MALS 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 Liberal Studies

LIST 7310 Introduction to Liberal 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.

LIST 7390 Liberal Studies Colloquium

The colloquium has a general course topic (such as "memory" or "sex and society") 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 an active dialogue in the classroom by presenting an interdisciplinary research project on the selected class topic. MALS students should enroll in LIST 7390 after completing LIST 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.

LIST 7396 Special Topics in Liberal Studies

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

LIST 8310, 8320 Liberal Studies Thesis/Final Project

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

Mathematical Sciences

Dickinson Hall, 622
569-8100

Master of Science and Graduate Certificate in Applied Statistics

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 web site at <http://dms.ualr.edu/students.html#grad>.

Admission Requirements

- Baccalaureate degree from an accredited institution with a cumulative grade point average of 2.7 (4.0 scale) or 3.0 in the last 60 hours
- Courses with a grade of C or better 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 better (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.

Graduation Requirements

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

Specializations

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

Applied Mathematics

This specialization requires 33 semester credit hours, including 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

Graduate Certificate in Applied Statistics

Program requirements for the Graduate Certificate in Applied Statistics Program (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 chose 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.

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

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 better 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 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 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.

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 multifactor 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.

Nonprofit Management

Ross Hall 642A
569-8572

Graduate Certificate

The Graduate Certificate in Nonprofit Management is designed for in-service students currently employed in nonprofit organizations. The curriculum combines scholarly knowledge with practical applications. Classes are taught by experienced faculty from a variety of fields - public administration, social work, communication, finance, and others. Courses present the trends affecting nonprofits and businesses alike and how to use them 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, visit the program's web site at <http://www.ualr.edu/iog/nonprofitcenter/>.

Admission Requirements

- Baccalaureate degree from 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.
- Program application, including an essay demonstrating students' background and interest, and two letters of reference relevant to the application.

Program Requirements

The graduate certificate in nonprofit organization management requires 18 graduate credit hours, including 6 required hours and 12 approved elective hours. One of the required hours is the final capstone project, which is a major applied project paper and oral presentation.

Core 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 7331 90 Financial Management for Nonprofit Organizations
- PADM 7334 90 Grantwriting and Fundraising
- PADM 7331 400 Human Resources/ Volunteer Management
- MCOM 7350 90 Public Relations for the 21st Century Nonprofits
- SOWK 8259, SOWK 8159 90 Evaluation Research I & II

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above
- Pass the capstone project (includes written and oral exams)

Professional and Technical Writing

Student Union B, 100
569-3160

Master of Arts

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 web site for more information, <http://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 better (4.0 scale) or 3.0 or better 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 resume
- 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, resume, 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.

Program Requirements

The PTW degree requires 36 graduate credit hours in a 4-part curriculum, which includes 12 hours of core courses, 12 hours in either a technical writing or nonfiction writing concentration, 6 hours in a cognate area, and 6 final project hours.

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.

Core Courses

- RHET 7310 Composition Theory
- RHET 7311 Rhetorical Theory
- RHET 7312 Language Theory
- RHET 7313 Theory of Technical Communication

Concentration hours allow students to develop a specialization within the program. Students must choose either the technical writing concentration or the nonfiction writing concentration and complete 12 hours in it. With permission from the program coordinator, students may mix courses from both concentrations if the course selection is appropriate for the student's career goals.

Concentration Courses

Technical Writing

- RHET 5304 Technical Style and Editing
- RHET 5305 Document Design
- RHET 5306 Writing for Business and Government

- RHET 5307 Writing Software Documentation
- RHET 5346 Topics in Technical Communication
- RHET 5371 Writing on the Web
- RHET 5375 Grant Writing
- RHET 7340 Topics in Technical, Business, and Government Writing
- RHET 7370 Theory of Computer-Mediated Communication
- RHET 7399 Writing Research Proposals and Reports

Nonfiction Writing

- RHET 5202 Teaching Writing in Secondary Schools
- RHET 5301 Theories of Rhetoric and Writing
- RHET 5315 Advanced Persuasive Writing
- RHET 5317 Advanced Nonfiction Writing
- RHET 5318 Writing Auto/Biography
- RHET 5321 Editing for Publication
- RHET 5325 Legal Writing, Reasoning, and Argument
- RHET 5331/5332 History of Rhetoric I and II
- RHET 5345 Topics in Persuasive Writing
- RHET 5347 Topics in Nonfiction Writing
- 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

Cognate hours are designed to allow writers to develop areas of outside interest that support their PTW concentrations. For example, students may choose to develop an area in speech communication, literature, linguistics, psychology, computer applications, or graphic design. If students do not choose to develop an outside area, cognate hours may be chosen from any part of the PTW curriculum (apart from their concentration). Cognate hours must be graduate hours. Certain courses in the PTW program may be applied to the cognate component only. (See course descriptions below.)

Final project hours allow students to design, propose, and complete extended writing projects appropriate to particular areas of interest. Final projects are defended before students' examination committees. Projects take a number of forms, including but not limited to the following:

Thesis

Extended research on an academic topic involving writing

Applied Writing Project

Extended applied project of substantial scope with an accompanying analytical essay

Graduate Assistantships

A limited number of graduate assistantships, teaching and non-teaching, are available each year. Contact the program coordinator for information.

Graduation Requirements

- Cumulative GPA of at least 3.0 on an approved program of study as outlined above
- Successful completion and oral defense of final project

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 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 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 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 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 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

Prerequisite: RHET 8300. Completion and defense of final project, approval of supervisory committee, and acceptance of project by Graduate School.



Public Administration

Ross Hall, 628
569-3211, 569-3037

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. It 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 <http://ualr.edu/mpa>.

The curriculum combines practical applications and scholarly knowledge to provide an understanding of the policy process and develop the specific skills needed by governmental and nonprofit managers, analysts, and policy-makers. The program's position within the UALR Institute of Government and at the seat of state government offers unique opportunities for internships and other practical experiences. Visit the program's website for more information, <http://ualr.edu/mpa/>.

The public administration program is an integral part of the UALR Institute of Government, which houses several other units that provide internships, assistantships, and practical experience and networking opportunities.

Arkansas Public Administration Consortium is a collaboration of three universities (UALR, UA Fayetteville, and Arkansas State University); it coordinates statewide internship placement for public administration students and administers the Certified Public Manager and Certified Volunteer Manager programs.

The Research Group conducts short-term and ongoing projects for all areas of state and local government and nonprofit organizations.

Admission Requirements

- Baccalaureate degree from accredited institution with a cumulative grade point average of at least 2.7 (4.0 scale) or 3.0 in the last 60 hours
- Composite score of at least 1,000 on the Graduate Record Examination verbal and quantitative sections or 400 on the Miller Analogies Test
- Work in other graduate or professional programs will be considered in making admission decisions
- A written statement of educational and career goals
- Resume
- Letters of recommendation (optional)

Program Requirements

The public administration degree requires 39 graduate credit hours, including 24 core hours, 15 approved elective hours, and successful completion of a major applied project paper and oral presentation. Students are expected to complete all of the MPA core courses before enrolling in PADM 7373 where the major applied research project is assigned. 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 without professional, managerial, or research experience in public administration are strongly 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).

Students admitted conditionally must maintain a 3.0 GPA in their first 12 graduate hours of core MPA courses.

Core Courses

- PADM 7301 The Profession of Public Administration
- PADM 7303 Public Organization Theory
- PADM 7313 Human Resource Management in the Public Sector
- PADM 7315 Methods in Public Administration
- PADM 7323 Public Financial Administration
- PADM 7332 Politics and Bureaucracy
- PADM 7363 Public Policy Analysis
- PADM 7373 Seminar in Public Administration

Electives

- PADM 5341 Seminar in Comparative Public Administration
- PADM 5353 Seminar in Public Budgeting
- PADM 7331 Problems in Public Administration
- PADM 7333 Administrative Leadership and Public Management
- PADM 7334 Grantwriting and Fundraising
- PADM 7335 Urban Management
- PADM 7336 Managing the Not-for-Profit Sector
- PADM 7337 Public Organizational Change and Development
- PADM 7338 Public Personnel Problems and Issues
- PADM 7339 State Administration and Reform
- PADM 7340 Ethics in Public Administration
- PADM 7341 Managing Public Disputes
- PADM 7342 Public Revenue Management
- PADM 7343 Organizational Partnerships and Collaboration
- PADM 7345 Urban Management and Community Change
- PADM 7353 Seminar in Intergovernmental Management
- PADM 7373 Seminar in Public Administration
- PADM 7380 Public Program Evaluation
- PADM 7385 Seminar in Public Policy
- 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.
- Successful completion of the capstone oral presentation.

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. Admission requirements for the advanced standing program are:

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.7 (4.0 scale) or 3.0 in the last 60 hours.
- Composite score of at least 1,000 on the Graduate Record Examination verbal and quantitative sections or 400 on the Miller Analogies Test.
- Enrollment in the CPM program that must be completed before enrolling in PADM 7373.
- 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.

Students admitted to the advanced standing program are required to complete all core requirements 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 joint degree program is offered with the UALR Bowen School of Law. Students enrolled in the joint MPA/JD program may use specified courses to earn cross-credits that may be applied toward the fulfillment of both degrees. By participating in the joint degree program, a student can eliminate 27 credit hours that are required if the degrees are pursued separately.

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 joint program until both programs receive a copy of the completed form.

Current MPA students may enter the joint 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 joint 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

- PADM 7333 Administrative Leadership and Public Management
- PADM 7334 Grantwriting and Fundraising
- PADM 7335 Urban Management
- PADM 7339 State Administration and Reform
- PADM 7340 Ethics in Public Administration
- PADM 7353 Seminar in Intergovernmental Management
- PADM 7363 Public Policy Analysis
- PADM 7380 Public Program Evaluation
- PADM 7385 Seminar in Public Policy

JD Courses Approved for Credit in the MPA Program

- LAW 6203 Alternative Dispute Resolution
- LAW 6249 Workers Compensation
- LAW 6256/6393 Civil Liberties
- LAW 6257/6300 Communications Law

- LAW 6259 Correctional Law
- LAW 6269 Employment Law
- LAW 6279 State & Local Taxation
- LAW 6283/6387 Health Law
- 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

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

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 7301 The Profession of Public Administration

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 or second semester they are in the MPA program. They must complete The Profession of Public Administration course with an A or a B before being able to take additional MPA courses.

PADM 7303 Public Organization Theory

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

Policies, practices, issues of managing the human resource function in public organizations.

PADM 7315 Methods in Public Administration

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

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 7331 Problems in Public Administration

Seminar on selected topics.

PADM 7332 Politics and Bureaucracy

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

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 Grantwriting and Fundraising

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

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

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

Theories, concepts; emphasis on applications to practical administrative problems.

PADM 7338 Public Personnel Problems and Issues

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

Specialized needs of managing, reforming state government from comparative framework; emphasis on Arkansas.

PADM 7340 Ethics in Public Administration

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

Prerequisites: bachelor's degree, enrollment in graduate school, and 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. Designed for public sector managers, managers of nonprofit or private organizations, and dispute resolution professionals. Emphasis on learning through case studies and simulation exercises.

PADM 7342 Public Revenue Management

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. Three credit hours.

PADM 7343 Organizational Partnerships and Collaboration

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. Three credit hours.

PADM 7345 Urban Management and Community Change

PADM 7335 recommended first. 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 7353 Seminar in Intergovernmental Management

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

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

Prerequisite: 30 hours approved coursework toward MPA degree with a minimum of 18 hours of core courses completed and a 3.0 GPA for these approved MPA courses. Faculty approval of proposal required. Analysis, linkage of theories, concepts in public administration, policy; emphasis on applying research to practice of public administration. The major applied project paper and oral defense are completed during this course.

PADM 7380 Public Program Evaluation

Prerequisite: Public Administration 7315 or 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

Public sector theories; techniques for analyzing policies; various substantive fields that may include health, energy, environment, other policy-making areas.

PADM 7393 Administrative Law

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

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

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

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.

Public History

Stabler Hall, 604E
569-8395

Master of Arts

The Master of Arts in Public History program links historical training and insights-gained from the study of theoretical, comparative, and practical approaches-with problem-solving and analytical skills to prepare working historians capable of addressing historical issues in the public sphere.

The curriculum has three basic components: a core segment with internship and thesis, traditional history segment, and applied segment. Applied segment courses include hands-on experience with a variety of local historical organizations and are taught by professionals in the field. The program's web site, found at <http://www.ualr.edu/history/pubhis.htm>, provides more detailed information.

Admission Requirements

- Baccalaureate degree from an accredited institution with a cumulative grade point average of at least 2.7 (4.0 scale) or 3.0 in the last 60 hours
- 15 undergraduate history hours with grades of at least 3.25 (or complete specific preparatory courses)
- Composite score of at least 1,000 on the Graduate Record Examination verbal and quantitative sections
- Two letters of recommendation, preferably from persons familiar with applicant's academic work or related work experience

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, or 7699.

Special students may take program courses with recommendation of the program coordinator and may later apply the credit to the program if admitted.

Program Requirements

The public history degree requires 39 graduate credit hours, including 18 core hours, 9 traditional history hours, 9 applied hours, 3 electives, and 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 better to count toward the degree.

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

Plan I - for students intending to pursue career paths that emphasize the possession of historic research skills, such as historical writing, business history, or public policy, or graduate students beyond the Master's level.

Plan II - for students intending to pursue careers in the specialized application of historical knowledge, such as historic interpretation, museum administration, archives management, historic preservation, or in historic work with public agencies.

Plan III - for students intending to pursue careers in historical interpretation for the public or with students, whether in museums, outreach, schools, or public programming settings.

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.

Conditional students must complete six hours, including History 7311 and 7315, with grades of B or better. These grades count toward admission requirements; courses may not be repeated to achieve the grade requirement.

Curriculum

All students begin by taking core courses and move to specialized internships and research in their final year. Students will develop their programs in conjunction with the Coordinator of Public History.

Core Segment

- HIST 7311 Introduction to Public History
- HIST 7315 Seminar in Historical Methods
- HIST 7391 Seminar in Public History
- HIST 7398 Internship
- HIST 7699 Thesis

History Segment

- HIST 5305 Environmental History
- HIST 5312 Medicine, Miracles, and Magic: Early History of Healing in Medieval and Renaissance Europe
- HIST 5313 Apocalypse Now and Then: A History of Apocalyptic Thought and Movements
- HIST 5315 Religious History of the United States
- HIST 5318 Modern Revolutions: From France to China
- HIST 5396 Seminar in Arkansas History
- HIST 7392 Seminar in Early America
- HIST 7393 Seminar in 19th-Century America
- HIST 7394 Seminar in 20th-Century America
- HIST 7395 Special Problems in History
- HIST 7396 Seminar in History

Applied Segment

Archives

- HIST 7320 Archival Management
- HIST 7321 Archival Conservation

Museum Studies

- HIST 7330 History Museum Administration
- HIST 7331 Historical Interpretation in Museums of History

Historic Preservation

- HIST 7341 Historic Preservation and Restoration
- HIST 5309 A History of Arkansas Architecture

General

- HIST 5306 History with Objects I
- HIST 7352 Historical Parks Planning and Development
- HIST 7360 Historical Editing: An Introduction
- HIST 7370 Oral History
- HIST 7380 Directed Study in Public History

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 better on all courses
- Pass the thesis defense

Students who do not achieve a 3.0 GPA in the 39 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 humans 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

HIST5315 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 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 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 frameworks for grades 7-12, and learn how to plan and teach social studies lessons, units, and curriculum maps. HIST 5397 is not open to 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 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 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.

HIST7396 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 7699 Thesis

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



Second Languages

Stabler Hall, 304
569-3272

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 degree consists of two tracks, the Second Language Acquisition and Pedagogy track and the Spanish Language track. The two tracks share 12 hours of common courses, teaching methods, research, and thesis. They diverge in that the Acquisition and Pedagogy track engages students in work related to how languages are learned and techniques needed to present languages to others, while the Spanish Language track focuses on the cultures, linguistics, and literatures of those who speak and write in Spanish throughout the world.

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 web site for more information, <http://www.disls.ualr.edu/masl>, or contact the Graduate Program Coordinator.

Admission Requirements

- Bachelor's degree from an 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 and a combined score of 1000 on the verbal (600) and quantitative (400) sections of the GRE or a score of 413 on the MAT

Transfer of Credit

Up to 12 graduate credit hours may be accepted in transfer with approval of the Graduate Program Coordinator.

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

Second Language Acquisition and Pedagogy 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 less common taught language) prior to entering the program. Part of the core may be fulfilled by the student's previous course work.

Spanish Track

This track focuses on the language, linguistics, literature, and culture of the Spanish-speaking world. This program requires an extensive background in Spanish. LANG 7313 Spanish Seminar is repeated for credit with varying topics, including but not limited to: Early Spanish Literature, Golden Age, El Quixote, Peninsular 19th and 20th Centuries, Latin America 19th and 20th Centuries, and Colonial Latin American Literature.

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 7313 Seminar

Prerequisite: graduate standing or consent of instructor. Reading, study, discussion, critical analysis of selected topics in a particular language. Content changes on demand; may be repeated with new topic.

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.

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 web site, <http://www.ualr.edu/socialwork/>.

Admission Requirements

- Baccalaureate degree with a liberal arts perspective from an accredited college or university
- Overall GPA of 3.0 is required¹
- 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
- 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. Applications are included in the application/information packet that can be obtained by visiting the School of Social Work web site at <http://ualr.edu/msw/index.php/home/application-information/financial-aid/> or by visiting the UALR Graduate School web site at <http://www.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.

1. On occasion, an applicant may be conditionally admitted if this requirement is not met. A conditional admission requires the student to demonstrate adequate academic ability by maintaining a 3.0 in core courses within the first 12 semester hours in order to continue in the program.

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 practicum or of courses in the professional foundation areas specified in the Curriculum Policy Statement.

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 usually complete the internship concurrently with other course work. Part-time students may complete field work in a block basis, generally during the summer term, but must have completed or be in the process of completing all foundation requirements. 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 is 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 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 (no exceptions) 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. All courses are offered both during the day and evening times and occasionally on weekends. 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 (24 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, two elective hours are 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

Post Master's Certificate in Marriage and Family Therapy

The certificate program in marriage and family therapy offers an innovative and creative approach to graduate education. It is open to current students seeking an MSW and to students who have completed a master's degree in social work, mental health counseling, or psychology. Completion of this certificate and supervised clinical practice meets the state requirements for licensure.

For students who have completed some specific course work in the areas of concentration, credit toward the certification can be given on a case by case basis. No more than nine semester hours are transferable from another university or college.

Program Requirements

- 21 hours of social work course work outlined below
- Full admission to MSW program at UALR (certificate option A), *or*
- Graduates of the MSW program at UALR or other accredited graduate programs in social work, psychology, or counseling (certificate option B)

Certification Option A

This option is for students who enter the MSW program and wish to complete the certificate program in marriage and family therapy. The present MSW requires three elective courses. For students wishing to complete the certificate program, electives should be chosen from the elective courses in the marriage and family area (3-hour course). These electives would fulfill the elective requirements for the MSW and at the same time apply nine hours toward the certificate of marriage and family therapy program. Two core MSW courses (six hours), ADP II and Diversity and Oppression are required for both MSW and MFT-GC programs. The student then takes an additional 6 hours of course work in the marriage and family therapy program either during or after completing the MSW outlined in Option B.

Certification Option B

This option is for those interested in the certificate who are mental health professionals or already have an MSW whether from UALR or another institution but no background in marriage and family therapy.

Required Coursework

Course work is not sequential, so students may enroll at any point. The goal is to complete the 21 hours.

Required courses are:

- Diversity and Oppression
- Family Life Cycle
- Sociology of the Family
- Intergenerational Family Therapy
- Ethics in Marriage and Family Therapy
- Theories of Marriage & Family Therapy
- Advanced Direct Practice II
- Human Sexuality

Note: For licensure, the state requires clinical experience, which is not included in the above 21 hours.

Courses in Social Work

SOWK 5310 Social Gerontology

Prerequisite: graduate standing. Normal process of senescence (as opposed to pathological accompaniments of aging due to stress, disease, trauma); focus on sociological theories of aging, social consequences of demographic and epidemiological processes in an aging society.

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 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 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 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. 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 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 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 8210 Social and Emotional Implications of Illness and Disability

Prerequisite: graduate standing. Health care issues, problems; variety of social work practice dimensions; social, emotional components; reciprocal relationships of health, psychosocial cultural processes; social work practice in a multidisciplinary environment.

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, interactionist, 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 8239 Cognitive-Behavioral Psychotherapy

This course will cover the principles and practice strategies of empirically-supported cognitive-behavioral theory. The historical and contemporary principles that form the basis of cognitive-behavioral theory will be fully covered, followed by how this approach to treatment conceptualizes therapeutic engagement, assessment, intervention and evaluation. The course will cover a range of emotional, psychological and behavioral disorders, focusing on how such disorders can be conceptualized and treated using cognitive-behavioral principals and techniques. In addition to exploring the theoretical and philosophical and underpinnings of cognitive-behavioral models of pathology and treatment, a central aim of this course is to identify the most widely utilized practice strategies that derive from the cognitive-behavioral framework, and to reinforce the notion of empirically based practice. The course will also cover person-in-situation factors, drawings from both ecological and ecosystems frameworks. Also covered will be issues re In addition to didactic training, students will be required to participate in role-plays of therapist/client interactions.

SOWK 8240 Psychodynamic Psychotherapy

This course will start with 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 will then be presented. The ego psychological component will address the assessment of person-in-situation factors, which draw from both the ecological and ecosystems frameworks. Also covered will be 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 development trajectory of object relations and specific fixation points that result in character pathology, organized at a psychotic, borderline or neurotic level. Lastly, expressive and supportive treatment strategies and interventions that derive from dynamic theory will be explored and presented within the context of case situations. This course is meant to be very practice oriented in order to help participants apply the model to a variety of client situations.

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 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 8321 Biology and Psychology of Aging

Consequences of normal aging processes (distinguished from age-related disease processes), extension of life expectancy; interrelationship of biology, behavior; age-related physiological/anatomical changes that affect health; epidemiological studies of disease and aging; psychosocial, cognitive factors of aging and memory of learning, psychopathology affecting mental health.

SOWK 8329 Aging and Social Policy I

Prerequisite: graduate standing. Policy creation process, problem analysis as it bears on aging, the elderly; political organization of the elderly, their participation in national, state, local policy processes; leading organizations exerting influence in age-related matters; techniques of policy advocacy on behalf of the elderly; substantive policy issues such as retirement, income security, health care, institutionalization, housing, community services.

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 and 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 8380 Assessment & Case Management with Older Adults

Prerequisites: graduate standing, statistics and social or behavioral research methods courses or consent of instructor. Methodologies essential to planning, management, and evaluation of human service programs; emphasis on client assessment, community needs assessment and resource inventory, program impact assessment, program evaluation; includes issues of program design and reorganization based on data generated by these methods; requires writing program recommendations, research report.

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.

Strategic Communication

Stabler Hall 705
569-3250

Graduate Certificate

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.

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 5350 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 on an approved program of study as outlined above.

Systems Engineering

ETAS 300
569-3100

Graduate Certificate and Master of Science

The UALR Donaghey College of Engineering and Information Technology offers a Graduate Certificate in Systems Engineering and a Master of Science in Systems Engineering.

The Certificate allows students to specialize in fields such as: Systems Architecture and Design, Functional and Physical Design, Requirements Analysis, Concept Definition, Design Trade-offs, Risk Assessment, Interface Definition, Engineering Design, System Integration, Project Planning, Verification and Validation, and Cost and Timeline Analysis

The Graduate Certificate in Systems Engineering program can help students bring together all engineering fields, creating the "big picture" for accomplishing goals and managing complex structures such as: Computer Networks, Wireless Networks, Thermal Power Plants, Airplanes and Spacecraft, Manufacturing Lines, and Transportation Systems. The Certificate can also help students to: Integrate multifaceted engineering projects and disciplines; model complex systems and optimize systems performance; and conduct real-life case studies by architecting and designing engineering projects.

Building upon the theme of the Graduate Certificate, the Master of Science in Systems Engineering provides unique opportunities to the engineering community to broaden the knowledge base and acquire state-of-the-art technical skills. The Master of Science degree prepares engineers for professional practice in today's complex technical environment. It also offers cutting-edge knowledge base for innovation. To support these goals, both thesis and non-thesis options are available in the program.

Graduate Certificate in Systems Engineering

Admission Requirements

The minimum entrance requirement is a bachelor 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 Certificate consists of 18 credit hours of course work (which amounts to half of a typical master's degree requirement). It is ideal for working professionals who wish to upgrade their skills in the intricacies of systems engineering. Certificate holders who have finished the program may further pursue a master's degree, both in Systems Engineering and in other areas such as Applied Science, 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 a need, deficiency, or market opportunity into a feasible system or product architecture.

Electives (6 hours)

Due to the diversity of students' professional backgrounds, students are encouraged to pick two, upper-level elective courses (5000-level or above) that are compatible with their specific interests. These two technical courses, approved in advance by the graduate coordinator, can be chosen from university departments such as: Systems Engineering, Applied Science, Computer Science, Information Science, or other graduate science- or engineering-related programs.

Sample Upper- and Graduate-Level Electives are listed below after the Master of Science 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 project.

Admission Requirements

A bachelor's degree in engineering, technology, science or related discipline is required. The applicant must have an overall undergraduate GPA of 3.0 or a 3.3 on the last 60 credit hours. The applicant must have a minimum combined score on the GRE of 1000 (Verbal and Quantitative) and 4.5 in the writing test. GRE will be waived if the GPA is 3.5 or higher. Applicants 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 12 graduate credits in the first year of study to be admitted fully. International students must also satisfy the Graduate School TOEFL requirements.

Degree Requirements

The master's program in Systems Engineering constitutes 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 credits taken for 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. 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 this 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. For both thesis and non-thesis options, a one-hour graduate seminar is required but will be offered on a credit/no-credit basis. Other minimum requirements for both the thesis and non-thesis options are:

Thesis Option

- Courses - 24 credits
- Thesis work - 6 credits
- Thesis defense - required
- Graduate Seminar - 1 credit

Non-Thesis Option

- Courses - 27 credits
- Graduate Project - 3 credits
- Graduate Seminar - 1 credit

Required Core Courses

- SYEN 7311 System Design and Analysis
- SYEN 7312 System Architecture and Design
- SYEN 7313 System Management and Evaluation
- SYEN 7314 Multicriteria Decision and Risk Analysis

Electives

In consultation with the graduate coordinator or thesis/project advisor, both master's and certificate students may take their remaining course credits from any of the following sample elective courses. The courses are listed by categories only for easy reference. For master's candidates, at least two 7000-level electives must be taken.

Systems Analysis and Applications

- SYEN 5320 Linear Systems Theory
- SYEN 5325 Fuzzy Logic in Control and Systems Engineering
- SYEN 5329 Robust and Optimal Control Systems
- SYEN 5322 Modeling Transportation Systems
- SYEN 5342 Linear Program and Network Flows
- SYEN 7342 Networks and Combinatorial Optimization
- SYEN 7315 Complex Engineered Systems
- SYEN 7316 Advanced Systems Simulation

Electrical and Computer Engineering

- SYEN 5332 Applied Operating Systems
- SYEN 5354 Power Systems Analysis
- SYEN 7332 Advanced Operating System Design

Telecommunications, Networking, and Signal Processing

- SYEN 5336 Advances in Communication Networks
- SYEN 5353 Advanced Digital Communications
- SYEN 5355 Mobile Multimedia Internet
- SYEN 5356 RF Techniques and Systems
- SYEN 5352 Spatial Time Series
- SYEN 5362 Neural Networks and Adaptive Systems
- SYEN 7357 Advanced Antennas for Wireless Systems

Mechanical Engineering

- SYEN 5340 Applied Numerical Methods
- SYEN 5381 Thermal and Fluid Systems
- SYEN 7374 Elasticity
- SYEN 7376 Fracture Mechanics

Miscellaneous

- SYEN 5399 Special Topics* in Systems Engineering
- SYEN 7190 Systems Engineering Seminar
- 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:

- Introduction to Queuing Theory
- Optimization of Communication Networks
- MEMS and Microsystems
- Professional Engineering Registration and Licensure
- Design and Analysis of Advanced Manufacturing Systems
- Mechanical Vibration Engineering
- Economic Evaluation of Engineering Projects
- Industrial Electronics
- Computer-controlled Systems
- Optical Networking
- Random Signal Processing
- Biomedical Signal Processing and Modeling

Courses in Systems Engineering

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 credit hours.

SYEN 5320 Linear System Theory

Prerequisites: 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 lecture hours.

SYEN 5322 Modeling Transportation Systems

Prerequisites: SYEN 3312 or equivalent, SYEN 3314 or equivalent, 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 has 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. (A project is required for the graduate course. Course not open to students with credit for SYEN 4322).

SYEN 5325 Fuzzy Logic in Control and Systems Engineering

Prerequisite: 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 lecture hours.

SYEN 5329 Robust and Optimal Control

Prerequisite: SYEN 5320. Fundamentals of linear systems, signal and system spaces, power and spectral norms, feedback structure, internal stability, coprime factorization, Bode's gain and phase relation, observability, controllability, balanced realizations, model reduction, model uncertainty, small gain theorem, controller parametrization, existence of stabilizing controllers, H₂ optimal control, synthesis of state feedback via LMIs H_∞ control, and uncertain systems. three hours lecture. Three credit hours.

SYEN 5331 Advanced Computer Architecture

Prerequisites: SYEN 3336, or consent of the instructor. Introduction to Computer Systems, Instruction-Set Architecture, Arithmetic/Logic Unit, Data Path and Control, Memory System Design, I/O Interface, and Advanced Architectures. Dual-listed in the UALR Undergraduate Catalog as SYEN 4331. Three hours lecture. Three credit hours.

SYEN 5332 Applied Operating Systems

Prerequisite or corequisite: 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. Three hours lecture. Three credit hours.

SYEN 5336 Advances on Communication Networks

Prerequisites: SYEN 3312, 3316, and 3332. Essentials of S-ISDN, InteServ, MPLS, DiffServ. Advances in optical networks, wireless networks, satellite networks, sensor networks, ad hoc networks, access networks, and autonomous networks. Modeling and optimization of networks. Communication switch OS. Elementary queuing theory. Security issues. OPNET training. Socket programming. Dual-listed in the three hours lecture. Three credit hours. (Course not open to students with credit for SYEN 4336)

SYEN 5340 Applied Numerical Methods

Prerequisites: SYEN 1305; MATH 3312, and 3332. 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 Program and Network Flows

Prerequisite: SYEN 3312 or equivalent, 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 the network flow paradigm and discrete optimization of a model and its solution algorithms. The relationship between the network flow paradigm and discrete optimization is also emphasized. Software libraries are available to solve linear optimization models. (Course project is required for the graduate offering and is not required for the undergraduate offering. Course not open to students with credit for SYEN 4342.)

SYEN 5352 Spatial Time Series

Prerequisites: SYEN 3312, SYEN 3314 or STAT 3353, and Consent of the Instructor. Instead of a single stream of data, multiple streams are 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 Spatial-temporal Auto regressive Moving-Average model and Intervention Analysis. Unifying these diverse analyses and applications is Markov Random Field Theory. (Course project is required for the graduate offering and is not required for the undergraduate offering. Course not open to students with credit for SYEN 4352)

SYEN 5353 Advanced Digital Communications

Prerequisites: SYEN 3154, SYEN 3354. In-depth examination of wireless digital communication design strategies. Topics covered include digital modulation, radiowave propagation characteristics, signal detection methods, BER performance improvement and stimulation 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 modes, 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.

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 5356 RF Techniques and Systems

Prerequisites: SYEN 2315, MATH 3322, PHYS 2322. Analysis of electrostatic, magneto-static, and dynamic fields using vector analysis. Coulombs 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 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.

SYEN 5362 Neural Networks & Adaptive Systems

Prerequisites: SYEN 3312 or consent of the instructor. Introduction to neural networks, neuron models and learning strategies, pattern recognition, multi-layer perception, back propagation, principle component analysis, self-organizing feature maps, neural networks for time series-forecasting. Three hours lecture. Three credit hour. Students are required to do a term project related to the contents related to the contents of the course. Dual-listed in UALR Undergraduate Catalog as SYEN 4362. Course is not open to students with credit for SYEN 4362.

SYEN 5366 Advanced Digital Systems

Prerequisite: SYEN 3330 and 3310 or equivalent. Advanced design principles for digital systems. 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. Three hours lecture.

SYEN 7102 Research Tools

Prerequisites: 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.

SYEN 7190 Systems Engineering Seminar

Prerequisites: graduate standing and consent of the student's 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.

SYEN 7311 System Design and Analysis

Prerequisite(s): 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 System Architecture and Design

Prerequisites: SYEN 7311 or equivalent, 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 System Management and Evaluation

Prerequisites: SYEN 3314 or equivalent, or consent of the instructor. Organized in two parts, the 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 Multicriteria Decision and Risk Analysis

Prerequisites: SYEN 7313 or equivalent, or consent of the instructor. The purpose of this course is to expose the student to a wide variety of techniques in handling 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

Prerequisites: SYEN 3312 and 3362 or equivalent, or permission 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

Prerequisites: SYEN 3312 and 3316 or equivalent, or permission of the instructor. Simulation of existing or proposed real-world systems (facilities and processes). Topics include simulation input modeling, random variate 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 7332 Advanced Operating System Design

Prerequisites: SYEN 5332 or consent of the instructor. Design principles of modern schedulers, multi-processor systems, protection and security components, OS tools, and IP stacks. The graduate students 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 are not limited to the Linux scheduler, signal handler, shared memory control, virtual memory management, and case studies of device drivers. Three hours lecture. Three credit hours

SYEN 7342 Networks and Combinatorial Optimization

Prerequisite: SYEN 3312 or consent of the instructor. This course is an in-depth study of combinatorial programming and network flow optimization. The emphasis will be placed on discrete optimization and specialized solution techniques that are efficient ways to solve mixed-integer programming problems. These techniques include minimum cost flow, networks with gains, multi-commodity flow networks, networks with side constraints, and Lagrangian relaxation. Computational complexity is also discussed. Three hours lecture.

7357 Advanced Antennas for Wireless Systems

Prerequisites: SYEN 5356 or equivalent. The course introduces fundamental principles of antenna theory and applies them to particular antennas for wireless communication systems. The course covers applications 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 communication services. Three hours lecture. Three credit hours.

SYEN 7374 Elasticity

Prerequisites: SYEN 3372 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, completion of at least 18 credits in the Master's program, and consent of the student's graduate advisor. Students, under faculty supervision, will conduct directed research on practical problems related to Systems Engineering, and will submit a project report documenting the results. Three credit hours.

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, 8200, 8300, 8400, 8500, 8600 Systems Engineering Master's Thesis

Prerequisites: graduate standing, completion of at least 18 credits in the Master's program, and consent of the thesis advisor. Scholarly investigation of a selected problem in an area to Systems Engineering culminating in a written thesis and oral defense. Maximum of six hours may be applied toward MS degree. Variable credit of one to six hours.

Technology Innovation

EIT 550, 569-8951

Graduate Certificate

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 5361 New Venture Creation
- MGMT 5383 Issues in Entrepreneurship

In addition, students must select two graduate courses in their field of interest, usually from EIT or the College of Business.

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.

Nonprogram Courses

Graduate Level Nonprogram 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, journalism, and liberal 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: Anthropology 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 nonIndo 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 Astronomy

5301 Astrophysics

PHYS 2322 required. ASTR 2300 recommended, but not required. A graduate level course in astrophysics, with an emphasis on applying the tools of mechanics, electromagnetism, thermodynamics, and quantum theory to understand the processes inherent in galaxies, cosmology and the structure and evolution of stars, including a focus on extragalactic astronomy. This course is dual listed in the UALR Undergraduate Catalog as ASTR 4301. This course is not open to students with credit for ASTR 4301. Three hours of lecture per week.

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: consent of instructor. Humanity as a geologic agent; geologic hazards in the environment; geology, land-use studies; urban geology; case histories; requires two term projects and a case history presentation. Three hours lecture per week.

ERSC 5323 Geology of Arkansas

Regional geomorphology, structure, stratigraphy, paleontology of Arkansas; includes field trips to Ozark Dome, Ouachita Fold Belt, Arkansas Valley, Mississippi Embayment, Gulf Coastal Plain; requires field trip reports, term project. Three lectures per week, weekend field trips. Offered on demand.

ERSC 5331 Geotectonics

Prerequisite: ERSC 3330. Continental crust, tectonic elements, and tectonics of North America; oceanic crust, tectonic elements, and the relationships of these to plate tectonics; anatomy of mountain belts; term project required. Three hours lecture per week. Offered on demand.

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 3430/ 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: 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.

ERSC 5419 Geomorphology

Prerequisites: ERSC 1302/1102, 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. Two hours lecture, four 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. Two lecture hours per week, four laboratory hours. Four credit hours.

ERSC 5422 Applied GIS (Geographic Information Systems)

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. Two lecture hours per week, four laboratory hours. Four credit hours.

ERSC 5426 Remote Sensing

Prerequisite: ERSC 4421/5421 or BIOL 4421/5421 or consent of instructor. This course introduces the fundamentals of manipulating and interpreting the electromagnetic spectrum. The lecture portion of this class covers concepts of remote sensing, including how data is collected, processed, analyzed, and interpreted. The lab portion of the class is focuses on building proficiency in several image processing software programs and the use of spatial data for problem solving in science. Two lecture hours per week, four laboratory hours. 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.

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 Rhetoric 5202.

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 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 forms, 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.

ENGL 7150, 7250, 7350 New Perspectives in Teaching Literature

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.

Courses in Environmental Health Science

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.

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 subnational 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.

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.

INTR 5340 Deaf Culture

An interdisciplinary study of American Deaf culture and the factors that contribute to defining the Deaf Community as a distinct cultural minority, focusing on an awareness and understanding of cultural diversity and preservation of language. Covers the cultural identity, group norms, rules of social interaction, values, and traditions held by members who are deaf. Societal attitudes regarding deafness and issues such as cultural oppression and language power by the majority culture will be discussed, as well as the contributions of folklore, literature, plays and works of art made by persons who are deaf to the larger American culture and to their own community organizations. The impact of modern technology, emerging issues, trends and advocacy within the Deaf Community are presented.

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.

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 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 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.

Courses in Physics

PHYS 5199, 5299, 5399, 5499 Special Topics

Prerequisite: consent of instructor. Advanced, specialized topics of current interest in physics and astronomy. One, two, three, or four hours of lecture, or equivalent, per week.

PHYS 5310 Statistical Thermodynamics

Prerequisites: PHYS 2322, 3323. Microscopic, unified approach to thermodynamics, statistical mechanics with applications to ideal gases; includes blackbody radiation and conduction electronics, magnetic systems, the Debye model, chemical and phase equilibria. Three hours lecture, one hour optional discussion per week. Offered in spring on even years, or when in demand.

PHYS 5311 Classical Mechanics

Prerequisites: PHYS 2321, MATH 2306 or consent of instructor. Concepts of Newtonian mechanics, dynamics of particles and systems of particles, gravitation, vector analysis, dynamics of rigid bodies, moving coordinate systems, continuous media, small oscillations, and the methods of Lagrange and Hamilton. Three hours lecture, one hour optional discussion. Three credit hours.

PHYS 5321 Electromagnetism I

Prerequisite: PHYS 2322. Coulomb, Gauss laws; Poisson, Laplace equations and solutions in several coordinate systems; electric, magnetic energy; AC, DC circuits; Ampere's, Faraday's laws; vector potential; Maxwell's equations; propagation of electromagnetic waves. Three hours lecture, one hour optional discussion per week. Offered in fall on even years.

PHYS 5331 Modern Physics I

More detailed treatment of topics in Physics 3323; relativity, quantum mechanics, statistical physics, atomic and nuclear physics, elementary particles. Three hours lecture, one hour optional discussion per week. Offered in spring on odd years.

PHYS 5340 Solid State Physics

Structure of crystals, dispersion relations, specific heat, phonons, electric and magnetic properties of insulators and metals, band theory of metals, insulators and semiconductors, superconductivity. Three hours lecture, one hour optional discussion. Three credit hours.

PHYS 5350 Quantum Mechanics I

This course covers the concepts and history of quantum mechanics, experimental basis, the uncertainty principle, the Schrodinger equation with applications to simple systems, the hydrogen atom, perturbation theory, and the symmetry principles. Material from the Consortium for Upper-level Physics Software (CUPS) is assigned to enable students to investigate quantum systems in a sophisticated way. Three hours lecture and one hour optional discussion per week.

PHYS 5360 High Energy and Nuclear Physics

Prerequisite: PHYS 3323. Properties of the nuclei, nuclear structure and stability, quark-gluon structure of hadrons, thermodynamics of large ensembles of hadrons, nuclear reactions, instrumentation, and accelerators. Three hours lecture, one hour optional discussion per week. Three credit hours.

PHYS 5380 Wave Motion/Optics

Prerequisite: PHYS 2322. Wave equation and solutions, wave propagation, coherence, interference, diffraction, polarization, refraction and reflection, dispersion, interactions of light with matter, Huygens' principle, optical instruments, quantum optics. Three hours lecture, one hour optional discussion per week. Offered in spring on even years.

PHYS 7199, 7299, 7399 Selected Topics

Prerequisites: four undergraduate physics hours, professional experience in some physics area, consent of instructor. Topics include modern physics, astronomy; assists professionals to remain current in these fields; laboratory emphasis on physics demonstrations, experiments, simple astronomical observations. One hour lecture or two hours laboratory per week for each semester credit hour.

PHYS 7289, 7389, 7489 Graduate Research

Prerequisite: consent of department chairperson. Scholarly research and individual investigation on a topic in physics or astronomy; student will analyze, plan, and conduct experimental or theoretical work on a research problem. The student will spend four to six hours per week for each hour of credit earned. The exact hourly commitment per week will depend on the nature of the project and will be agreed on in advance by the student and the instructor; a memorandum of understanding must be signed by the student, instructor, and chairperson.

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 US-Panamanian Relations: Decisions and Documents

Prerequisites: graduate status; consent of the instructor is also required for on-line students. US-Panamanian relations during the late 19th and 20th centuries, in the context of US-hemispheric relations and US 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.

Courses in Political Science

POLS 5308 Topics in Urban Studies

Cross-listed with URST 5308.

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 of 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 Professional/Intellectual Entrepreneurship

IDST 7100 Special Topics in Professional/ Intellectual Entrepreneurship

This special topics course will allow graduate students to explore topics and skills essential to their success as professionals in various fields. It will also guide students in entrepreneurial ways to use skills gained in their graduate program to further personal interests and goals.

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 non-test 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 subspecialties; emphasis on critical analysis of theory, research to understand values, limitations of each approach. Various faculty members present lectures on special topics.

PSYC 7321, 7621 Independent Study in Applied Psychology

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.

PSYC 7340 Advanced Behavioral Statistics

Prerequisite: *PSYC 7345*. Theoretical survey of the most frequently applied statistics in the behavioral sciences; emphasis on conditions of application, computational techniques, interpretations.

PSYC 7345 Computer Statistical Package: Use in Psychology

Large-scale computerized statistical systems; emphasis on SAS system, other packages (SPSS, etc.) may be used; variety of statistical techniques including correlation, ANOVA, MANOVA, etc.

PSYC 7350 Training and Development

An examination of training and development in organizations. Emphasis on the importance of linking training to corporate strategy, research from cognitive psychology, instructional theory and motivation theory, needs assessment design, development, and evaluation of training programs.

PSYC 7360 Deviant Behavior

Various forms of pathological, deviant behavior; emphasis on criminal behavior.

PSYC 7361 Social Psychology

How social factors (e.g., attractiveness, persuasion, group or organizational structure, cultural factors) influence individuals' behavior; how persons of different characteristics interact with social factors and processes and physical environments.

PSYC 7362 Advanced Developmental Psychology

This course takes a life span perspective in covering the major areas of development. It will stress the use and application of the scientific method to the study of the development of the individual, as well as research designs used to measure developmental change. This course is not designed for students working on a graduate degree in education.

PSYC 7363 Organizational Psychology

Prerequisite: *condition 1*. Interplay of individuals and the organizations in which they work; includes job satisfaction, employee motivation, morale, leadership, group dynamics, conflict, organizational communication, union-management relations, managing organizational growth and change.

PSYC 7369, 7669 Internship in Applied Psychology

Professional activity by agreement between, and under joint supervision of, department faculty and an outside agency. Nature and scope of activities and responsibility for supervision must be agreed on before enrollment. May be repeated for credit with coordinator's permission.

PSYC 7370 Health Psychology

An overview of the contribution of psychology to the promotion and maintenance of health and the prevention and treatment of illness. Topics include behavioral risk factors associated with the development of illness, stress and coping, substance use and abuse, nutrition and weight control, exercise, the hospitalization experience, and doctor/patient relationships.

PSYC 7371 Professional Issues and Ethics in Psychology

Professional and ethical issues which affect the practice of professional psychology are explored. Readings in professional literature and intensive discussion of topics. Written critiques of journal articles in the APA style are required.

PSYC 7373 Literature Review in Psychology

Prerequisite: *PSYC 7455*. Bibliographic instruction and technical writing skills (at the graduate student level) are emphasized in weekly assignments involving reading of primary sources, discussion, and systematic written assignments. Assignments are designed to give experience in (1) conducting library searches, (2) evaluating research topics, (3) analyzing and interpreting research, (4) presenting reviews orally and in writing, (5) peer reviewing one another's work, and (6) revising manuscript drafts. The assignments culminate in a major review paper written within the student's area of research interest. In addition, students will begin developing a research proposal.

PSYC 7380 Human Factors Engineering for the Aged and Disabled

An analysis of the human factors and urban environmental literature with special emphasis on the aged and handicapped. Particular attention is paid to the design of physical objects people use and the design of environments in which people live, work, and recreate. Included are implications of salient shortages to personal environmental relationships.

PSYC 7385 Introduction to Clinical Methods

Principal theories, techniques of psychotherapy, psychodiagnostics; study of case histories to identify maladaptive behavior patterns, formulate therapeutic goals.

PSYC 7390 Advanced Gerontological Counseling

This course provides a theoretical framework and knowledge of concrete techniques used in counseling. It may be taken before or with counseling practicum.

PSYC 7395 Gerontological Counseling Practicum

Prerequisite: *PSYC 7390*. This course gives practical experience in classroom and field settings in applying counseling theories to actual situations. Interviewing and short-term counseling skills are demonstrated, practiced in the classroom, and practiced in the field.

PSYC 7398, 7698 Practicum in Applied Psychology

Directed research or other professional activity under individual faculty supervision. Enrollment and nature of activities must be agreed on before the semester begins. May be repeated for credit with coordinator's permission.

PSYC 7455 Research Methods and Design in Psychology

Emphasis will be on basic principles of research design in the psychological sciences. Topics include the Scientific Method, types of research paradigms (including naturalistic observation, the case study, the survey, correlational research, and experimentation), factorial designs, internal and external validity, research ethics, and APA style manuscript writing. Part of the course will be devoted to a survey of the traditional experimental areas of psychology including learning, perception cognition, psychophysics, individual differences, and social/personality psychology. Students will read and gain experience critiquing published psychology research articles. Students will gain hands-on experience with the research process.

PSYC 7480 Cognitive Psychology

Prerequisite: *condition 2*. This course examines research in a variety of cognitive domains including perception, learning, memory, reasoning, problem solving, decision making, language, and artificial intelligence. Students will read, discuss, and critique published research articles in cognitive psychology. In the laboratory portion of the class, students will also explore research paradigms commonly used in cognitive psychology.

PSYC 7533 Advanced Psychological Methods

Prerequisites: *condition 3 and PSYC 7373 and PSYC 7340.* Experience with computers preferred. Application of psychological statistics, testing methods to problem areas; emphasis on use in field situations; includes hypothesis testing, test construction and validation, scaling techniques for attitude measurement, introduction to multivariate models; requires work with statistical computer packages (e.g., SAS, SPSS).

PSYC 8000 Thesis

Prerequisite: *condition 3.* Independent investigation involving original research, demonstrating knowledge, methods of scholarship, culminating in written thesis with oral defense. Variable credit of one to six hours.

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 Radio, Television, and Film

RTVF 5312 Management Strategies

Prerequisites: MCOM 2310 and 2330. Roles and responsibilities of media managers in broadcast, cable, print, and interactive organizations. Emphasis on coordinating work units and personnel, legal obligations, resource generation and management, public relations, and the new technologies.

RTVF 5318 Emerging Technologies

Examination of the media environment created by the new and evolving technologies. The interrelationship of the developing communication technologies (Internet, computers, satellites, DBS, high-definition TV, among others) with the traditional public and commercial broadcasting, cable, and other media-related industries. Emphasis of legal, social, and technological issues and their impact on the media environment. Use of the RTVF computer lab and Internet access.

RTVF 7130, 7230, 7330 Telemedia Seminar

Various aspects of the electronic media; topics vary and may include telemedia ethics, economics, criticism, regulation, history, others.

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, evaluation.

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.

Graduate Faculty

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