



**ARKANSAS STATE
UNIVERSITY**

**EDUCATES LEADERS,
ENHANCES INTELLECTUAL GROWTH &
ENRICHES LIVES.**



**2021-2022
GRADUATE
BULLETIN**

Arkansas State University

STUDENT RESPONSIBILITY

Each student should study this **Undergraduate Bulletin** and become completely familiar with the organization and the regulations of the university. **Failure to do this may result in serious mistakes for which the student shall be held fully responsible.**

POLICY STATEMENT

Policies and procedures stated in this bulletin—from admission through graduation—require continuing evaluation, review, and approval by appropriate university officials. All statements reflect policies in existence at the time this bulletin went to press, and the **university reserves the right to change policies at any time and without prior notice.**

University officials determine whether students have satisfactorily met admission, retention, or graduation requirements. Arkansas State University reserves the right to require a student to withdraw from the university for cause at any time.

EQUAL OPPORTUNITY/AFFIRMATIVE ACTION

Arkansas State University is an Equal Opportunity/Affirmative Action Employer with a strong institutional commitment to the achievement of excellence and diversity among its faculty and staff. To that end, the University provides opportunities in employment practices, admission and treatment of students without regard to color, sex, sexual orientation, gender identity, race, age, national origin, religion, marital status, veteran status, genetic information or disability. ASU complies with all applicable federal and state legislation and does not discriminate on the basis of any unlawful criteria.

Questions regarding this policy should be addressed to the Affirmative Action Program Coordinator, P.O. Box 1500, State University, Arkansas 72467. Telephone (870) 972-3658.

SERVICES FOR INDIVIDUALS WITH DISABILITIES

Arkansas State University's Coordinator of Services to students, faculty and staff with disabilities is also the university's compliance coordinator for Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) and the ADA Accessibility Guidelines (ADAAG). In this capacity, the coordinator arranges for academic adjustments and auxiliary aids to be provided to qualified students and coordinates workplace accommodations. The coordinator also is the individual to whom concerns about physical access to facilities, buildings and grounds should be addressed. The coordinator's office is located on the second floor (Room 2181) of the Reng Student Services Center. The telephone number is (870) 972-3964. The number for the Telecommunications Device for the Deaf (TDD) is (870) 972-3458.

Arkansas State University will provide auxiliary aids, without cost, to those students with verified disabilities who require such services. If service providers are necessary, Arkansas State University will provide appropriately trained providers (other than paid tutors).



ACCREDITATION OF PROGRAMS

Arkansas State University is accredited by the Higher Learning Commission and its next comprehensive evaluation is in 2023-24. Many of Arkansas State University's individual programs are accredited by specialized accrediting agencies for the respective programs.

Higher Learning Commission

230 South LaSalle, Suite 7-500
Chicago, IL 60604
Telephone: 800-621-7440

Accreditation Board for Engineering and Technology (ABET)

415 N. Charles Street
Baltimore, MD 21201
Telephone: (410) 347-7700

Accreditation Commission for Education in Nursing (ACEN)

3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326
Telephone: (404) 975-5000

Accreditation Council for Education in Nutrition and Dietetics (ACEND)

Academy of Nutrition and Dietetics
120 South Riverside Plaza, Suite 2190
Chicago, IL 60606-6995
Telephone: (800) 877-1600 ext. 5400

Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

201 Bishop Hall
PO Box 1848
University, MS 38677
Telephone: (662) 915-5550

Accreditation Council for Occupational Therapy Education (ACOTE)

American Occupational Therapy Association
6116 Executive Boulevard, Suite 200
North Bethesda, MD 20852
Telephone: (301) 652-6611

American Alliance of Museums

2451 Crystal Drive, Suite 1005
Arlington, VA 22202
Telephone: (202) 289-1818

American Chemical Society (ACS)

1155 Sixteenth Street NW
Washington, DC 20036
Telephone: 800-333-9511

American Council on Teaching Foreign Languages

1001 N. Fairfax Street, Suite 200
Alexandria, VA 22314
Telephone: (703) 894-2900

Arkansas Department of Health Emergency Medical Services

Freeway Medical Tower
5800 West 10th Street, Suite 800
Little Rock, AR 72204
Telephone: (501) 661-2262

Association of Middle Level Education

2550 Corporate Exchange Drive, Suite 324
Columbus, OH 43231
Telephone: (614) 895-4730

Association for Play Therapy

401 Clovis Avenue No. 107
Clovis, CA 93612
Telephone: (559) 298-3400

The Association to Advance Collegiate Schools of Business (AACSB)

777 South Harbour Island Boulevard
Suite 750
Tampa, FL 33602
Telephone: (813) 769-6500

Commission on Accreditation of Allied Health Education Programs (CAAHEP)

9355 113th Street North, #7709
Seminole, FL 33775
Telephone: (727) 210-2350

Commission on Accreditation of Athletic Training Education

2001 K Street NW
3rd Floor North
Washington, DC 20006
Telephone: (844) 462-2283

Commission on Accreditation in Physical Therapy Education (CAPTE)

3030 Potomac Ave., Suite 100
Alexandria, Virginia 22305-3085
Telephone: (703) 684-2782

Commission on English Language Program Accreditation (CEA)

1001 North Fairfax Street, Suite 630
Alexandria, VA 22314
Telephone: (703) 665-3400

Commission on Sport Management Accreditation (COSMA)

2236 Water Blossom Lane
Fort Collins, CO 80526
Telephone: (202) 329-1189

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)

8301 Lakeview Parkway
Suite 111-312 Rowlett, TX 75088
Telephone: (214) 703-8445

Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA-ASHA)
2200 Research Boulevard, #310
Rockville, MD 20850
Telephone: 800-498-2071

Council for the Accreditation of Educator Preparation (CAEP)
1140 19th St NW, Suite 400
Washington, DC 20036
Telephone: (202) 223-0077

Council for Accreditation of Counseling and Related Educational Programs (CACREP)
500 Montgomery Street, Suite 350
Alexandria, VA 22314
Telephone: (703) 535-5990

Council for the Accreditation of Emergency Management and Homeland Security Education (CAEMHSE)
1589 Skeet Club Road, Suite 102-109
High Point, NC 27265
Email: info@caemhse.education

Council for Exceptional Children
3100 Clarendon Blvd, Suite 600
Arlington, VA 22201
Telephone: (888) 232-7733

Council on Accreditation of Nurse Anesthesia Educational Programs (COA)
222 South Prospect Avenue, Suite 304
Park Ridge, IL 60068
Telephone: (847) 655-1160

Council on Social Work Education (CSWE)
333 John Carlyle Street, Suite 400
Alexandria, VA 22314
Telephone: (703) 683-8080

Historic Alliance of Concurrent Enrollment Partnerships
P.O. Box 578
Chapel Hill, NC 27514
Telephone: (919) 59

Joint Review Committee on Education in Diagnostic Medical Sonography (JRCDS)
6021 University Boulevard, Suite 500
Ellicott city, MD 21043
Telephone: (443) 973-3251

Joint Review Committee on Education in Radiologic Technology (JRCERT)
20 N. Wacker Dr., Suite 2850
Chicago, IL 60606
Telephone: (312) 704-5300

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Rd, Suite 720
Rosemont, IL 60018
Telephone: (773) 714-8880

National Alliance of Concurrent Enrollment Partnerships (NACEP)
PO Box 578
Chapel Hill, NC 27514
Telephone: (919) 593-5205

National Association of School Psychologists (NASP)
4340 East West Highway
Suite 402
Bethesda, MD 20814
Telephone: (301) 657-0270

National Association of Schools of Art and Design (NASAD)
11250 Roger Bacon Drive
Suite 21
Reston, VA 20190
Telephone: (703) 437-0700

National Association of Schools of Music (NASM)
11250 Roger Bacon Drive
Suite 21
Reston, VA 20190
Telephone: (703) 437-0700

National Association of Schools of Public Affairs and Administration (NASPAA)
1029 Vermont Ave., NW, Suite 1100
Washington, DC 20005
Telephone: (202) 628-8965

National Association of Schools of Theatre (NAST)
11250 Roger Bacon Drive
Suite 21
Reston, VA 20190
Telephone: (703) 437-0700

National Council for Social Studies
8555 16th Street, Suite 500
Silver Spring, MD 20910
Telephone: (301) 588-1800

National Council of Teachers of English
340 N. Neil Street, #104
Champaign, IL 61820
Telephone: (217) 328-3870

National Council of Teachers of Mathematics
1906 Association Drive
Reston, VA 20191
Telephone: (703) 620-9840

National Policy Board of Education Administration
1904 Association Drive
Reston, VA 20192
Email: wilsonj@npbea.org

INSTITUTIONAL MEMBERSHIPS

Arkansas State University holds institutional membership in agencies, councils, and organizations important to the quality of its academic programs. Major memberships are shown below.

American Assembly of Collegiate Schools of Business
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
American Association of State Colleges and Universities
American Association of State Colleges of Agriculture and Renewable Resources
American Mathematical Society
American Occupational Therapy Association
American Physical Therapy Association Central ACCE Consortia (MO, KS, OK, AR)
American Society for Engineering Education
American Speech-Language-Hearing Association
Arkansas Academy of Science
Arkansas Council for Women in Higher Education
Arkansas Institutional Research Organization
Arkansas Research Alliance
Association for University Business and Economic Research
Association of American Colleges and Universities
Association of Public & Land-Grant Universities
Association of Schools of Allied Health Professions
Association of College Educators in Radiologic Technology
Association of Schools of Advancing Health Professions
Association of Schools of Journalism and Mass Communications
Broadcast Education Association
Commission on Accreditation of Allied Health Education Programs
Commission on Accreditation of Athletic Training Education
Commission on Sport Management Accreditation
Conference of Southern Graduate Schools
Council for Accreditation of Educator Preparation
Council for Advancement and Support of Education
Council of Colleges of Arts & Sciences
Council of Graduate Schools
Council on Social Work Education
European Teacher Education Network
International Registry of Counsellor Education Programs (Founding Member)
International Student Exchange
Jonesboro Unlimited
National Association of College and University Business Officers
National Association of Colleges and University Attorneys
National Association of Fellowships Advisors
National Association of Schools of Art and Design

INSTITUTIONAL MEMBERSHIPS

National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Collegiate Honors Council
National Council on Rehabilitation Education
National League for Nursing
National Student Exchange
Non-land-grant Agricultural and Renewable Resources Universities
North Central Association of Colleges and Schools
Oak Ridge Associated Universities
Southern Council on Collegiate Education for Nursing
Southern Regional Education Board
Teacher Education Council of State Colleges and Universities
American Chemical Society

ORAU MEMBERS

Since 2004, students and faculty of Arkansas State University have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 121 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at <http://see.orau.org>, or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs:

Visit the ORAU Home Page (<http://www.orau.org/>)

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ACADEMIC CALENDAR 2021-2022

Fall Semester 2021

Orientation for New Faculty	Aug 17 (Tu)
Faculty Conference	Aug 18 (W)
College and Department Faculty Meetings	Aug 19, 20 (Th, F)
Residence Halls Open	Aug 21 (Sa)
First Year Convocation	Aug 22 (Su)
Regular Classes Begin	Aug 24 (Tu)
Late Registration/Full Term and Session I Courses	Aug 24-30 (Tu-M)
Last Day to Change from Credit to Audit	Aug 30 (M)
WN Grading Begins for Full Term and Session I Courses	Aug 30 (M)
Labor Day Holiday	Sep 6 (M)
WN Grading Ends for Full Term and Session I Courses (Noon)	Sep 8 (W)
Intent to Graduate Applications Due for December 2020 Commencement	Sep 10 (F)
Graduation Check Sheets Due to Office of Records and Registration for December 2021 Commencement	Sep 17 (F)
Last Day to Drop Session I Courses	Sep 24 (F)
Mid-Semester Examinations	Oct 6-12 (W-Tu)
Last Day of Session I Classes	Oct 8 (F)
Mid-Semester/Session I Grades Due	Oct 13 (W)
Session II Classes Begin	Oct 18 (M)
Late Registration/Session II Courses	Oct 18 (M)
WN Grading Begins for Session II Courses	Oct 19 (Tu)
WN Grading Ends for Session II Courses (Noon)	Oct 22 (F)
Comprehensive Examination Results Reported to Registrar	Nov 12 (F)
Thesis/Dissertation Submitted to ProQuest and Oral Defense Results Reported to Registrar	Nov 12 (F)
Last Day to Drop a Course or Withdraw from the University	Nov 26 (F)
Thanksgiving Holiday/Fall Break	Nov 22-26 (M-F)
Last Day of Class	Dec 9 (Th)
Study Day	Dec 10 (F)
Final Examinations	Dec 13-17 (M-F)
Inclement Weather/Final Exam Make-Up Day (if necessary)	Dec 18 (Sa)
Residence Halls Close (for all students)	Dec 17 (F)
All Grades Due *** (Noon)	Dec 17 (F)
Commencement Ceremony (See Commencement Website)	Dec 18 (Sa)
Degree Conferral Date	Dec 18 (Sa)
Degree Conferral Date	December 19 (Sa)

The Official Academic Calendar can be accessed online at
<https://www.astate.edu/a/academic-affairs-and-research/calendars/>

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

ACADEMIC CALENDAR 2021-2022

December Interim 2021

Last Day to Register for December Interim	Dec 3 (F)
Last Day to Change from Credit to Audit	Dec 3 (F)
Classes Begin	Dec 20 (M)
WN Grading Begins	Dec 20 (M)
WN Grading Ends for Summer II Classes	Dec. 22 (W)
Last Day to Drop a Course or Withdraw from the University	Dec 24 (F)
Last Day of Class	Jan 7 (F)
Final Examinations	Jan 7 (F)
Interim Grades Due	Jan 10 (M)

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<https://www.astate.edu/a/academic-affairs-and-research/calendars/>

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

ACADEMIC CALENDAR 2021-2022

Spring Semester 2022

Faculty Development Activities, College/Department Meetings	Jan 3-7 (M-F)
Residence Halls Open	Jan 7 (F)
Regular Classes Begin	Jan 11 (Tu)
Late Registration/Full Term and Session I Courses	Jan 11-18 (Tu-Tu)
Martin Luther King Jr. Day Observed	Jan 17 (M)
Last Day to Change from Credit to Audit	Jan 18 (Tu)
WN Grading Begins for Full Term and Session I Courses	Jan 18 (Tu)
WN Grading Ends for Full term and Session I Courses (Noon)	Jan 26 (W)
Intent to Graduate Applications Due for May 2022 Commencement	Jan 28 (F)
Graduation Check Sheets Due to Office of Records and Registration for May 2022 Commencement	Feb 4 (F)
Last Day to Drop Session I Courses	Feb 11 (F)
Mid-Semester Examinations	Feb 22 - Feb 28 (Tu - M)
Last Day of Session I Classes	Feb 25 (F)
Mid-Semester / Session I Grades Due	Mar 2 (W)
Session II Classes Begin	Mar 7 (M)
Late Registration/Session II Courses	Mar 7 (M)
WN Grading Begins for Session II Courses	Mar 8 (Tu)
WN Grading Ends for Session II Courses (Noon)	Mar 11 (F)
Spring Break	Mar 21-25 (M-F)
Convocation of Scholars	Mar 30-Apr 29 (All)
Comprehensive Examination Results Reported to Registrar	Apr 8 (F)
Thesis/Dissertation Submitted to ProQuest and Oral Defense Results Reported to Registrar	Apr 8 (F)
Spring Faculty Awards and Faculty Association Meeting	Apr 12 (Tu)
Last Day to Drop a Course or Withdraw from the University	Apr 15 (F)
Last Day of Class	Apr 28 (Th)
Study Day	Apr 29 (F)
Final Examinations	May 2-6 (M-F)
University Final Examination Make-Up Day (if necessary)	May 7 (Sa)
Commencement Ceremony (See Commencement Website)	May 7 (Sa)
Degree Conferral Date	May 7 (Sa)
Residence Halls Close (for all students not graduating)	May 7 (Sa)
Grades Due	May 10 (Tu)

The Official Academic Calendar can be accessed online at <https://www.astate.edu/a/academic-affairs-and-research/calendars/>

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

ACADEMIC CALENDAR 2021-2022

Summer Term 2022 (General Dates)

Residence Halls Open	May 27 (F)
Intent to Graduate Applications Due for Summer 2022 Commencement	May 13 (F)
Graduation Check Sheets Due to Office of the Registrar for August 2022 Commencement	May 20 (F)
Thesis/Dissertation submitted to ProQuest and Oral Defense Results Reported to Registrar	Jul1 (F)
Comprehensive Examination Results Reported to Registrar	Jul1 (F)
Memorial Day Holiday Observed	May 30 (M)
Independence Day Holiday Observed	July 4 (M)
Commencement Ceremony (See Commencement Website)	Aug 12 (F)
Degree Conferral Date	Aug 12 (F)

May Interim 2022

Last Day to Register for May Interim	May 9 (M)
Last Day to Change from Credit to Audit	May 9 (M)
Classes Begin	May 9 (M)
WN Grading Begins	May 9 (M)
WN Grading Ends for Summer II Classes	May 10 (T)
Last Day to Drop a Course or Withdraw from the University	May 13 (F)
Last Day of Class	May 27 (F)
Final Examinations	May 27 (F)
Interim Grades Due	May 30 (M)

The Official Academic Calendar can be accessed online at <https://www.astate.edu/a/academic-affairs-and-research/calendars/>

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

ACADEMIC CALENDAR 2021-2022

Summer Term 2022 - Session I (5 Weeks)

Summer 1 Begins - 5 weeks	May 31 (Tu)
Late Registration - 5 weeks	May 31 (Tu)
Last Day to Change from Credit to Audit - 5 weeks	May 31 (Tu)
WN Grading Begins - 5 weeks	Jun 1 (W)
WN Grading Ends - 5 weeks (Noon)	Jun 6 (M)
Last Day to Drop a Course or Withdraw from the University - 5 weeks	Jun 17 (F)
Last Day of Class - 5 weeks	Jun 30 (Th)
Thesis/Dissertation submitted to ProQuest and Oral Defense Results Reported to Registrar	Jul1 (F)
Comprehensive Examination Results Reported to Registrar	Jul1 (F)
Final Examinations - 5 weeks	Jul 1 (F)
Independence Day Holiday Observed	July 4 (M)
Summer Grades Due - 5 weeks	Jul 5 (Tu)

Summer Term 2022 - Session II (5 Weeks)

Classes Begin	Jul 5 (Tu)
Late Registration	Jul 5 (Tu)
Last Day to Change from Credit to Audit	Jul 5 (Tu)
WN Grading Begins	Jul 6 (W)
WN Grading Ends for Summer II Classes(Noon)	Jul 11 (M)
Last Day to Drop a Course or Withdraw from the University	Jul 22 (F)
Last Day of Class	Aug 4 (Th)
Final Examinations	Aug 5 (F)
Commencement Ceremony (See Commencement Website)	Aug 12 (F)
Degree Conferral Date	Aug 12 (F)
Summer II Grades Due	Aug 15 (M)

ACADEMIC CALENDAR 2021-2022

Summer Term 2022 - Full Term (10 Weeks)

Summer 1 Begins - 10 Weeks	May 31 (Tu)
Late Registration - 10 Weeks	May 31 (Tu)
Last Day to Change from Credit to Audit - 10 Weeks	May 31 (Tu)
WN Grading Begins - 10 Weeks	Jun 1 (W)
WN Grading Ends -10 Weeks (Noon)	Jun 6 (M)
Thesis/Dissertation submitted to ProQuest and Oral Defense Results Reported to Registrar	Jul1 (F)
Comprehensive Examination Results Reported to Registrar	Jul1 (F)
Independence Day Holiday Observed	July 4 (M)
Last Day to Drop a Course or Withdraw from the University -10 Weeks	Jul 22 (F)
Last Day of Class -10 Weeks	Aug 4 (Th)
Final Examinations -10 Weeks	Aug 5 (F)
Commencement Ceremony (See Commencement Website)	Aug 12 (F)
Degree Conferral Date	Aug 12 (F)
Summer II Grades Due - 10 Weeks	Aug 15 (M)

ACADEMIC CALENDAR 2021-2022

Summer Term 2022 - Session I (7 Weeks)

Classes Begin - 7 weeks	May 9 (M)
Late Registration -7 weeks	May 9 (M)
Last Day to Change from Credit to Audit - 7 weeks	May 9 (M)
WN Grading Begins - 7 weeks	May 10 (T)
WN Grading Ends Courses - 7 weeks (Noon)	May 13 (F)
Memorial Day Holiday Observed	May 30 (M)
Last Day to Drop a Course or Withdraw from the University - 7 weeks	June 10 (F)
Last Day of Class - 7 weeks	June 24 (F)
Summer Grades Due - 7 weeks	June 28 (Tu)

Summer Term 2022 - Session II (7 Weeks)

Classes Begin	June 27 (M)
Late Registration	June 27 (M)
Last Day to Change from Credit to Audit	June 27 (M)
WN Grading Begins	June 28 (Tu)
WN Grading Ends for Summer II Classes	July 1 (F)
Independence Day Holiday Observed	July 4 (M)
Last Day to Drop a Course or Withdraw from the University	July 29 (F)
Last Day of Class	Aug 10 (W)
Final Examinations	Aug 11 (Th)
Commencement Ceremony (See Commencement Website)	Aug 12 (F)
Degree Conferral Date	Aug 12 (F)
Summer II Grades Due	Aug 15 (M)

ORGANIZATION OF THE UNIVERSITY

BOARD OF TRUSTEES—2021-2022

	Term Expires
Price Gardner, Little Rock	January, 2022
Christy Clark, Little Rock	January, 2023
Tim Langford, Little Rock	January, 2024
Niel Crowson, Jonesboro	January, 2025
Steve Eddington, Benton	January, 2026
Bishop Robert G. Rudolph Jr., Bryant	January, 2027
Paul Rowton, Harrisburg	January, 2028

OFFICERS OF THE BOARD—2021

Price Gardner	Chair
Christy Clark	Vice-Chair
Tim Langford	Secretary

PRESIDENT OF THE UNIVERSITY SYSTEM

Charles Welch, B.A., M.A., Ed.D.

CHANCELLOR OF THE UNIVERSITY

Kelly Damphousse, B.S., M.S., Ph.D.

OFFICERS OF THE UNIVERSITY 2021-2022

ALAN UTTER, 2019 B.S., University of Pittsburgh M.S., University of Pittsburgh M.P.H., University of Pittsburgh Ph.D., University of Pittsburgh	—Provost and Executive Vice Chancellor for Academic Affairs and Research
LEN FREY, 2000 B.S., Arkansas State University M.B.A., Arkansas State University Ph.D., University of Memphis	—Executive Vice Chancellor for Finance and Administration —Professor of Management
ERIKA CHUDY, 2012 B.S., Arkansas State University M.B.A., Arkansas State University Ed.S., Arkansas State University Ed.D., Arkansas State University	—Interim Vice Chancellor for University Advancement
LONNIE R. WILLIAMS, 2003 Ed.D., University of Arkansas Ed.S., University of Arkansas M.Ed., University of Arkansas B.S.B.A. University of Arkansas	—Vice Chancellor for Diversity, Inclusion and Community Engagement
TOM BOWEN, 2021 B.S. Arkansas State University M.S. University of Kansas	—Vice Chancellor for Intercollegiate Athletics
MARTHA SPACK, 2004 B.A., Arkansas Tech University M.S., Arkansas State University Ed.D., Arkansas State University	—Dean of Students
THILLA SIVAKUMARAN, 2012 B.S., University of Washington M.S., University of Tennessee Ph.D., University of Tennessee	—Vice Chancellor for Enrollment Management & Global Outreach

OFFICERS OF THE UNIVERSITY 2021-2022

Division of Academic Affairs and Research,
Academic Deans, and Chair of Independent Department

THOMAS RISCH, 2001 B.S., Stockton State College M.S. Frostburg State University Ph.D., Auburn University	Vice Provost for Research and Technology Transfer, Executive Director of ABI —Professor of Animal Ecology
JILL SIMONS, 1997 B.A., University of Arkansas M.S., University of Rhode Island S.C.C.T., Arkansas State University Ed.D., Arkansas State University	Associate Vice Chancellor for Academic Services Dean of University College
KAREN WHEELER, 2016 B.S., University of Tennessee-Martin M.A., Austin Peay State University Ph.D., Bowling Green State University	Associate Vice Chancellor for Academic Affairs
SUMMER DePROW B.S. Arkansas State University M.B.A., Arkansas State University S.C.C.T., Arkansas State University Ph.D., University of Mississippi	Assistant Vice Chancellor for Assessment and Accreditation
MICKEY LATOUR, 2020 B.S., Southeastern Louisiana State University M.S., Mississippi State University Ph.D., Mississippi State University	Dean, College of Agriculture —Professor of Agricultural
MELODY LO, 2020 B.A., National Tsing-Hua University M.A., Purdue University Ph.D., Purdue University	Dean, Neil Griffin College of Business —Professor of Economics
MARY JANE BRADLEY, 1987 B.S.E., Arkansas State University M.S.E., Arkansas State University Ed.S., Arkansas State University Ed.D., Memphis State University	Dean, College of Education and Behavioral Science —Associate Professor of Education
ABHIJIT BHATTACHARYA, 2019 B.Tech., Indian Institute of Technology M.S., Rutgers University Ph.D., Rutgers University	Dean, College of Engineering and Computer Science —Professor of Mechanical Engineering
CARL CATES, 2016 B.A., Abilene Christian University M.S., Abilene Christian University Ph.D., Florida State University	Dean, College of Liberal Arts and Communication —Professor of Strategic Communications
SCOTT GORDON, 2021 B.A., Bowdoin College M.S., The Pennsylvania State University Ph.D., The Pennsylvania State University	Dean of Nursing & Health Professions —Tenured Professor of Exercise Physiology
LYNN BOYD, 2019 M.A., Wakeforest University Ph.D., University of Utah	Dean, College of Sciences and Mathematics —Professor of Biological Sciences
CHERISSE JONES-BRANCH, 2003 B.A., College of Charleston M.A., University of Charleston Ph.D., The Ohio State University	Dean, Graduate School —Professor of History

OFFICERS OF THE UNIVERSITY 2021-2022

Division of Academic Affairs and Research,
Academic Deans, and Chair of Independent Department

JOSEPH LOAR, 2019

B.A. University of Tennessee
M.M.A.S., Kansas State University

Chair, Independent Department of Military Science
—Professor of Military Science

JEFF BAILEY, 1992

B.A., Morehead State University
M.L.S., Clarion University of Pennsylvania

Director, Library

The University Mission

Arkansas State University **educates** leaders, **enhances** intellectual growth, and **enriches** lives.

Core Values

Arkansas State University values the following as central to our success:

- **Student-Centered:** We are committed to education, inquiry and service in order to meet students' changing needs. We foster lifelong learning, civic and social responsibility, leadership, and individual and career growth.
- **Learning-Centered:** We nurture intellectual flexibility, knowledge and skills by integrating teaching, research, assessment and learning to promote continuous improvement of our scholarly community.
- **Excellence:** We pursue excellence within the campus community through opportunities for achievement in teaching, research, scholarship, creative activity and service.
- **Diversity:** We embrace diversity in all of its dimensions realizing that mutual respect for individuality and the inclusion of all are vital for both personal and institutional success.
- **Service:** We support and recognize service at all levels of the university. We strive to contribute to the benefit of the university, the Delta, the state, the nation and the world.
- **Integrity:** We hold high standards of character and integrity as the foundations upon which the university is built.

University Learning Outcomes

A-State seeks to graduate students with the following knowledge and skills:

- **Creative and Critical Thinking:** Students will demonstrate the creative and critical thinking skills needed to evaluate relevant information and/or ideas, formulate innovative strategies, and solve problems.
- **Communication:** Students will communicate effectively in social, academic, and professional contexts using a variety of means, including written, oral, numeric/quantitative, graphic, and/or visual modes as appropriate to topic, audience, and discipline.
- **Social and Civic Responsibility:** Students will understand the impact and consequences of their actions upon themselves and others, as well as their roles as citizens of a free democratic society.
- **Diversity and Globalization:** Students will be able to live and work effectively with others as an engaged member of a diverse and global society.

Vision

Arkansas State University aspires to be an academic leader recognized for innovation and quality in teaching and learning, international standing in strategic research areas, and commitment to outreach and service to the Delta and beyond.

Location

The university is located about halfway between the Mississippi River Valley, one of the most fertile areas in the world, and the Ozark Mountains, rich in American folklore and tradition. The university campus occupies an area of 800 acres on the gently rolling slopes of Crowley's Ridge, in the city of Jonesboro.

History

Arkansas State University enjoys a reputation as a quality regional institution of higher education and is recognized for offering special services to the people of the Arkansas Delta. It is the only comprehensive public university located in this region. Dedicated to teaching, research, and service, the university provides students with the broad educational foundations that help develop critical thinking and analytical skills, decision-making capabilities, and communication skills.

This institution was founded in Jonesboro in 1909 by the Arkansas Legislature as a regional agricultural training school. It began offering a two-year college program in 1918, then became "First District Agricultural and Mechanical College" in 1925. A four-year degree program was begun in 1930, and A&M College became "Arkansas State College" in 1933. The Arkansas Legislature elevated the college to university status and changed the name to Arkansas State University in 1967. Today, the institution has more than 90,000 alumni.

Degree Programs: Master's degree graduate programs were initiated in 1955, and A-State began offering its first doctoral degree, in educational leadership, in the fall of 1992. A second doctoral program in environmental science began in the fall of 1997, and the doctoral program in heritage studies began in the fall of 2001. The molecular biosciences doctoral program began in the spring of 2006. Programs at the specialist's, master's, bachelor's and associate's degree levels are available through various colleges: Agriculture, Engineering and Technology, Business, Education and Behavioral Science, Liberal Arts and Communication, Nursing and Health Professions, Sciences and Mathematics, and University College. Classes are also offered through The Honors College and the independent Department of Military Science. More information about the various colleges and academic departments is available through the Office of Academic Affairs and Research.

Accreditation: Arkansas State University's commitment to excellence in higher education is demonstrated by its accreditation by The Higher Learning Commission of the North Central Association of Colleges and Schools, as well as over 25 specialized accrediting organizations. In addition, the university holds membership in several national organizations which support the highest educational standards.

ASU-Queretaro, Mexico: Arkansas State University broke ground in 2014 to build a campus in Queretaro, Mexico. Classes began in the Fall of 2017 offering students the ability to earn a degree which is valid in Mexico and the United States of America. ASU-Q offers bachelor's degrees in several areas.

The ASU System: The ASU System includes Arkansas State University, a four-year Carnegie R2 research institution in Jonesboro with degree centers at ASU-Beebe, ASU-Mountain Home and ASU Mid-South in West Memphis. Arkansas State University Campus Queretaro opened in September 2017. The system's two-year college institutions include ASU-Beebe, with additional campuses in Heber Springs and Searcy and an instructional site at Little Rock Air Force Base; ASU-Newport, with additional campuses in Jonesboro and Marked Tree; ASU-Mountain Home; ASU Mid-South in West Memphis; and ASU Three Rivers (formerly College of the Ouachitas) in Malvern.

Henderson State University in Arkadelphia became the system's second four-year institution member on Feb. 1 under Act 18 of 2021.

Library

The Dean B. Ellis Library, centrally located in an eight-story building, functions as an educational center for the university community. It houses an open shelf collection which includes over 620,000 print books and periodicals, 500,000 federal and state documents, 590,000 units in microform, over 30,000 CDs and DVDs, and provides online access to millions of books, articles, and other resources, including more than 350,000 eBooks. The collection encompasses all subject fields, but emphasizes subjects covered by Arkansas State University courses and degree programs. The Library of Congress classification system is used for the arrangement of books, and an online catalog provides access to its print collection and electronic resources. Reserve items are available at the Circulation Desk.

The library meets the informational needs of the university by offering a variety of services. A staff of 13 professional librarians and 18 support personnel acquires, organizes, and maintains the physical collections and provide access to online resources. The library assists users in locating information and in the use of the library building. An active library instruction program offers the Introduction to Academic Research courses (LIR 1011 and 1023) and reaches numerous university classes with individualized instruction sessions. Online databases provide access to eBooks, journals and data not housed within the library. Materials that are not contained in the library's collections may be borrowed from other libraries through Interlibrary Loan.

Special collections include 1) the Cass S. Hough Aeronautical Collection of 14,000 books and memorabilia which has been described as the single most valuable collection of aviation materials in private hands; 2) an outstanding collection of Lois Lenski books for children; 3) collections of notable Arkansas authors of children's books: Charlie May Simon, Lois Snelling, Faith Yingling Knoop; and 4) a collection of Arkansas writer John Gould Fletcher.

The Tom Love Collection forms the nucleus of an extensive "Arkansas Collection." It is comprised of manuscripts, documents, and other historic materials relating to the state of Arkansas. In addition, the Arkansas Room collection contains Arkansas topographic and other maps, Arkansas State University publications, and the student newspaper, The Herald.

The Honorable E. C. Gathings Collection is comprised principally of correspondence from Arkansas' long-time congressional representative, making available primary research materials relating to the First Congressional District during Gathings' time of service in the Congress.

The Honorable Bill Alexander Collection expands and extends the research materials relating to the First Congressional District through Congressman Alexander's tenure as a member of the U.S. House of Representatives. The Alexander and Gathings collections cover 53 years, 1939 to 1992.

The collection of creation science papers, donated by former Arkansas Attorney General Steve Clark, includes the state's side of the landmark creation science case.

The Judd Hill Collection, Mabel H. Gieseck Collection, and the Ira Twist, Jr. Collection form the core of a primary research emphasis on the agricultural development and environment transformation of Eastern Arkansas.

An Oral History Program, housed in the library, has conducted and taped interviews with a number of local citizens and state leaders. The tapes are available for use by any interested researcher who comes to the library.

In addition to materials directly related to classroom and research work, the library provides students with general and recreational reading materials, and a wide variety of spaces to study or relax. Exhibits and displays presenting ideas and issues are also a regular part of ongoing service and outreach activities.

Heritage Sites

The Arkansas State University Heritage Sites program develops and operates heritage sites of regional and national significance in the Arkansas Delta. These sites provide educational resources for formal and informal learning, including serving as laboratories for the Heritage Studies Ph.D. program. In addition, they serve as economic catalysts in communities where they are located by attracting heritage tourists from around the country. These sites currently include the Hemingway-Pfeiffer Museum and Educational Center in Piggott, the Southern Tenant Farmers Museum in Tyronza, the Lakeport Plantation in Lake Village, the Historic Dyess Colony: Johnny Cash Boyhood Home, the Kays House on the university campus, and other affiliated sites.

Museum

Arkansas State University Museum is located on the A-State campus in Jonesboro in the west wing of the Dean B. Ellis Library building. The Museum serves the academic mission of the University as a teaching museum and provides quality programming that broadens the perceptions and aspirations of people in Northeast Arkansas and the Mississippi River Delta region, connects people with their history, promotes tolerance, engages minds in progressive thinking, and enhances the sense of community among all audiences. Of the more than 35,000 museums in the United States, ASU Museum is one of fewer than 1100 accredited by the American Alliance of Museums.

With 16,000 square feet of exhibit space and more than 60,000 regionally acquired objects, ASU Museum is a veritable treasure of Northeast Arkansas history, culture, and natural history. Long-term exhibits feature fossils going back 300 million years ago, a fully articulated Mastodon skeleton replica, a gallery on prehistoric Native American life and culture, artifacts illustrating early settlement in Northeast Arkansas ("Living Off the Land"), period exhibits highlighting shops typical of regional towns dating 1880–1920 ("Old Town Arkansas"), a military gallery, decorative arts, and more.

Multiple activities target children and support state-mandated curriculum, including science, technology, engineering and math—notably, hands-on exhibits about prehistoric peoples in Northeast Arkansas, the early European exploration of Arkansas, and the New Madrid Seismic Zone. The Museum offers a Tinkering Studio and family-oriented events such as TinkerFest (June) and Día de los Muertos (November). Juried children's art from area schools is featured every April in "Through a Child's Eyes."

The Museum is open Monday and Wednesday–Friday, 9:00 AM–5:00 PM; Saturday, 10:00–5:00 PM, and Tuesday, 9:00 AM–7:00 PM, with closure on Sundays and University holidays. Free tours are available by appointment (870-972-2074). Limited free parking is available in the parking lot south of the Museum. School buses and large groups, please call for parking instructions.

Delta Studies Center

The Delta Studies Center at Arkansas State University from program startup in 1998 has worked to increase Delta regional understanding, to enhance a sense of place and to address the challenges and community economic development opportunities of delta regionalism - as well as to strategically encourage national and international poverty alleviation scholarship and public policy related to the region. The center targets the lower Mississippi River corridor, its river tributaries and strip of mostly persistent poverty counties and cities located along both riverbanks. This landscape constitutes the physical and natural geography of the seven-state Lower Mississippi River Valley.

The Delta Studies Center focuses priority attention on the delta definition and development social movement of the recent past as embodied since 2002 in the ongoing operation and sustenance of the Delta Regional Authority - one of the most impactful multi-state intergovernmental public policy innovations of the recent past. The center works across campus with university departments, centers and programs to support multi-cultural interdisciplinary studies and activities directed towards achievement of equity and the quality of life envisioned by the people and institutions of the Delta.

The center operates with a community-building and civic engagement mission, particularly through internships and public service within the sub-state political geography of the eight-state Delta Regional Authority program service area. Specific activities of the center include dissemination of information; workshops and applied research; case study and oral history community documentation; public policy development and analysis; resource mobilization for program development; and, collaboration with federal, state, local government agencies and nonprofit anchor institutions.

Admission

Arkansas State University (A-State) provides graduate programs to individuals holding at least a bachelor's degree from an accredited college or university whose undergraduate or graduate work has been of sufficient quality and scope to enable them to pursue graduate study successfully. A-State offers equal educational opportunity to all persons without regard to race, religion, sex, age, creed, color, national origin, or physical disability.

GENERAL INFORMATION

Prospective students seeking a graduate certificate or degree should apply online at <http://www.astate.edu/graduate>. Official transcripts of all undergraduate and graduate work must be submitted to the Office of Admission, Records and Registration, PO Box 1570, State University, AR 72467. All applicants also must submit written documents of measles, mumps and rubella immunization that were administered after their first birthday or after January 1, 1968.

Arkansas law requires that in order to be eligible for enrollment at a public college or university an applicant who is a U.S. citizen and a male under the age of 26 must be registered or be exempt from registration with the selective service system.

Application materials become the property of the University and will not be returned to the applicant or forwarded to other institutions. If seeking admission at a later date, applicants must submit a new online application for the certificate or degree and identify the term in which they wish to be admitted. Some or all of the application materials might require updating at this time.

All applications must be accompanied by a nonrefundable application fee. Fees can be remitted online during the application process, via telephone to the University Cashier's Window at (870) 972-3847, or by check or money order payable to Arkansas State University, Cashier's Window, PO Box 2640, State University, AR 72467.

Applications will be processed upon receipt of payment. If applications are received without payment, all application materials will be held and the applicant notified that no action will be taken until payment is received. International students apply directly to the Office of International Programs.

Depending on the timely submission of the required materials and the extent of review required, an application can take from a few days to many weeks to process. Because application procedures and requirements vary by program, applicants are encouraged to review particular program requirements and deadlines in the appropriate section of the Graduate Bulletin or online at <http://www.astate.edu/college/graduate-school/degrees-offered/>.

Applications to specific programs are reviewed by program faculty before an admission decision is made. Applicants are encouraged to submit all materials at the earliest possible date, but preferably no later than six weeks prior to the beginning of the semester. Late applications may delay registration and limit course selection. Applicants must check with individual departments for different published deadlines.

When consideration of the applications for admission has been completed, the Office of the Registrar will inform the applicant of the admission decision, including any conditions that may be imposed. A student may be admitted into Graduate Programs under unconditional status or conditional status.

ADMISSION STATUS

Admission to the graduate degree program is a two-step process. First, an applicant must meet the requirements for University admission. Second, the applicant must meet the admissions criteria of the degree program to which they are applying. University admission does not ensure admission into a particular graduate degree program. Academic departments may establish requirements for individual degree programs that are more rigorous than the University. (See departmental sections of the Graduate Bulletin or online at <http://www.astate.edu/college/graduate-school/> for specific program admission requirements.) A degree-seeking student admitted to one program who decides to change to a different program must meet the admission requirements of the new program and complete a new application.

In order to complete the application for admission, the Graduate School must receive an application form, required application fee, official transcripts of all undergraduate and graduate work, and required test scores. Application materials are shared with the department of the program to which the student is applying. Students not planning to seek a graduate degree or who are undecided (i.e., transient or non-degree), will be admitted to the Graduate School if they meet requirements for unconditional admission. Prospective students who do not meet the qualifications for unconditional admission or are not seeking a degree may be admitted on a conditional basis after review by the Graduate Dean.

UNIVERSITY ADMISSIONS CRITERIA

UNCONDITIONAL ADMISSION STATUS

The following University admission requirements are minimum standards which identify the pool of applicants from which departments select students to be admitted to a certificate or degree program. To be granted unconditional admission status, applicants must have met the following criteria:

1. Submitted a completed application for admission to the Office of the Registrar and the designated nonrefundable application fee, at least 30 days in advance of registration.
2. Earned a baccalaureate degree from an accredited institution (or its equivalent as determined by the Registrar).
3. Earned a graduate or post-baccalaureate professional degree from a regionally-accredited (U.S.) institution; OR Achieved a minimum cumulative undergraduate grade point average of 2.75 on a 4.00 scale; OR achieved a 3.00 GPA on the last 60 hours of coursework (undergraduate, graduate, or a combination).
4. Submitted official transcripts from each previously attended college or university to Graduate Admissions. Official transcripts must be submitted directly from the Registrar of other institutions to the Office of the Registrar.

CONDITIONAL ADMISSION STATUS

An applicant who fails to meet the GPA requirements for unconditional admission status, who lacks the appropriate undergraduate background for a particular certificate or degree program, or whose baccalaureate degree is from an unaccredited institution, may be granted conditional admission status. Consideration will be given to applicants who have met the following requirements:

1. Submitted a completed application for admission to the Office of the Registrar and the designated nonrefundable application fee, at least 30 days in advance of registration.
2. Submitted official transcripts from each previously attended college or university to the Office of the Registrar. Official transcripts must be submitted directly from the Registrar of other institutions to the Office of the Registrar.
3. Achieved a minimum cumulative undergraduate grade point average of 2.50 on a 4.00 scale; OR a 2.75 GPA on the last 60 hours of coursework (undergraduate, graduate, or a combination).

Specific graduate programs may have defined conditional admission criteria that supplement the requirements listed above.

A student will be removed from University conditional admission status upon completion of 9 hours in the program of study with a grade of "B" or better for each course. Specific graduate programs may have additional criteria for being removed from conditional admission status. While under conditional admission status, a student cannot earn a grade of "C" or lower in any graduate-level course. Students who do not meet this standard will be suspended from the graduate program.

TYPES OF ADMISSION

Applicants may be admitted to the University as either certificate/degree-seeking or non-certificate/degree seeking. The graduate degree-seeking student classification is for those who wish to pursue a specific graduate certificate/degree program. The graduate non-degree student classification is for those who wish to enroll in graduate courses, but who do not wish to pursue a graduate certificate/degree at the university.

ADMISSION TO A CERTIFICATE OR DEGREE PROGRAM

In addition to meeting the minimum requirements of the University, an applicant for admission to a certificate, master's, specialist, or doctoral degree program also must meet departmental and/or program requirements. Applicants to a degree program must hold a baccalaureate or higher degree from an accredited four-year institution with the appropriate undergraduate background in the field of the proposed academic emphasis. Additional requirements and materials for admission to particular certificate/degree

programs are found elsewhere in the Graduate Bulletin or online at <http://www.astate.edu/college/graduate-school/degrees-offered/>. Specific program information can be found under the academic college in which the program is located.

Certificate and degree-seeking students must submit all additional application materials required of the specific program and must have been accepted into the program by the appropriate department selection committee. See Admission Requirements for specific programs in the Graduate Bulletin or online at <http://www.astate.edu/college/graduate-school/degrees-offered/>.

ADMISSION AS A GRADUATE NON-DEGREE STUDENT

Admission as a graduate non-degree student is for individuals who seek personal and/or professional development, as well as those returning for educational workshops, and transient students. Students who have been admitted to another accredited graduate school and wish to take courses for transfer may establish non-degree status by submitting an application for admission and a graduate transcript indicating good standing from sending institution.

Non-degree students may take a graduate course for which they qualify, with approval of the department offering the course. Departments also may require that non-degree students consult with a departmental advisor before enrolling in any classes. Former or currently-enrolled non-degree students who want to apply for admission to a degree program must meet all requirements of that program.

Admission as a non-degree student does not imply that the student meets conditional or unconditional admission requirements. Graduate credit earned as a non-degree student may be applied to a degree program only with approval of the appropriate department chair and acceptance of the approval by the Registrar. Up to 12 hours earned in non-degree status and only courses with a grade of "B" or better may be applied to a graduate degree.

Non-degree admission does not entitle the student to enroll in 7000- or 8000-level courses. Exceptions may be made for those holding an appropriate master's degree in a relevant field as accepted by the Department of Educational Leadership, Curriculum, and Special Education.

Enrollment in 7000-level courses with COUN and PSY prefixes requires (1) Admission to the Ed.S. in Psychology and Counseling; (2) Unconditional admission to another university's accredited post-master degree program with a major in psychology or counseling; or (3) Admission to the Ed.S. in Educational Administration, or the Ed.D. in Educational Leadership (permission must be granted).

Enrollment in 8000-level courses is restricted to those who have been admitted to pursue the doctoral degrees.

ADMISSION AS AN UNDERGRADUATE INTO AN ACCELERATED MASTERS PROGRAM

The accelerated master's degree option provides a transition that enables outstanding A-State undergraduate students to begin taking graduate course work in their junior or senior year by combining components of the undergraduate and graduate curriculum. Students admitted into an approved accelerated master's degree program may have a limited number of graduate level courses counted toward both the undergraduate and graduate degree. Students must apply and be admitted to the accelerated master's program by the department before enrolling for any courses to apply to the graduate degree. A-State graduate programs offering an accelerated option are listed below:

- Accounting (M.Acc.)
- Agriculture (M.S.A.) - All Concentrations
- Chemistry (M.S.)
- Computer Science (M.S.)
- Disaster Preparedness and Emergency Management (M.S.)
- Engineering (M.S.Engr.)
- History (M.A.)
- Political Science (M.A.)
- Public Administration (M.P.A.)
- Special Education – Instructional Specialist Grades K-12 (M.S.E.)

Depending on the program, up to 12 hours of graduate credits will apply toward completion of the undergraduate degree requirements. Under the accelerated master's degree option, a student will be fully-admitted to the graduate program upon completion of the baccalaureate degree. This dual counting

of a course for both undergraduate and graduate credit will occur only after the student completes the baccalaureate degree. Only courses with grades B or better will be eligible to count toward graduate credit. Undergraduate students interested in the accelerated master's opportunity should contact their department or the Office of the Registrar for admission information.

ADMISSION AS AN UNDERGRADUATE TO ENROLL IN GRADUATE COURSES

In exceptional cases, undergraduate students with senior standing at A-State may enroll in graduate-level course-work either for undergraduate or graduate credit.

For undergraduate credit:

An undergraduate student with senior standing at A-State who wishes to take a graduate course for undergraduate credit must:

- 1) have a 3.25 undergraduate GPA,
- 2) have written consent from the faculty advisor, course professor, and the Graduate Dean

Upon approval, seniors may enroll in a maximum of 9 hours of graduate work for undergraduate credit, provided the total undergraduate and graduate hours do not exceed 15 semester hours. A course used toward an undergraduate degree cannot be counted or used later for graduate credit, except in the case of enrollment in an approved accelerated master's program. Graduate tuition will be charged for all graduate courses.

For graduate credit:

An undergraduate student with senior standing at A-State who wishes to take a graduate course for graduate credit must:

- 1) meet the GPA requirements for unconditional admission to Graduate Programs,
- 2) have no more than 12 hours of undergraduate work remaining to complete the bachelor's degree at A-State
- 3) obtain approval of the faculty advisor, course professor, and the Graduate Dean

Upon approval, seniors may enroll in a maximum of 12 hours of graduate work, provided the total undergraduate and graduate hours do not exceed 15 semester hours. A course used toward an undergraduate degree cannot be counted or used later for graduate credit, except in the case of enrollment in an approved accelerated master's program. Students will receive graduate credit only if the requirements for the bachelor's degree have been met by the end of the term and all requirements for admission to the graduate program are met. Enrollment under these conditions is limited to one term. Graduate tuition will be charged for all graduate courses.

Other exceptional undergraduate students who have attained senior status but are not in their last 12 hours and who wish to enroll in graduate courses will be considered on a case-by-case basis.

ADMISSION OF STUDENTS FROM OTHER INSTITUTIONS

Graduate students transferring to Arkansas State University from other institutions must be in good standing with the institution from which they seek to transfer, must have a "B" average in all graduate work completed, and must meet Arkansas State University's criteria for graduate admission. For admission to a particular certificate or degree program, transferring graduate students must meet the established criteria of the program.

ADMISSION OF INTERNATIONAL STUDENTS

The Office of International Student Services admits graduates of foreign colleges and universities and citizens of foreign countries. In order to be eligible for admission, international students must provide appropriate evidence of proficiency in the use of the English language if English is not their native language, establish academic eligibility, and provide certification by financial institutions (acceptable to Arkansas State University) stating that financial resources are available to support the individuals during their stay in the United States. Coursework completed at foreign institutions is not normally accepted for graduate transfer credit.

Citizens of the British Isles, the English speaking portions of Canada, Australia, New Zealand, the Bahamas, Barbados, Belize, Bermuda, Dominica, Ghana, Nigeria, South Africa, and the British Virgin Islands are considered to have native ability in English.

An applicant whose native language is not English but who has completed a four-year bachelor's degree at an accredited institution in the United States, or in any of the above mentioned countries, will be considered proficient in English. Students who have successfully completed a CEA accredited English program in the United States may also be considered proficient in English.

For an applicant whose native language is not English and who does not have a bachelor's degree from an accredited institution in the United States, or the above mentioned countries, proficiency in English may be demonstrated by submitting scores of 550 on the paper-based, or 79 on the internet-based, Test of English as a Foreign Language (TOEFL); a score of 6 on the International English Language Testing System (IELTS) exam, a score of 56 on the Pearson Test of English (PTE), a score of 4.5 on the International Test of English Proficiency (ITEP), a score of 550 total on the Evidence-Based Reading/Writing sections of the SAT, a score of 21 total (and on both the English and Reading sections) of the ACT, a score of 5, 6, or 7 on the English: Literature or Language and Literature part of the International Baccalaureate (IB) exams, or by obtaining a minimum of 65% in English at X and XII in Certificate in India and Pakistan.

The academic requirements for admission of international students are as follows:

1. The academic preparation of applicants must be the equivalent of a four year bachelor's degree from an accredited institution.
2. The records of previous studies must document appropriate standards of academic achievement.
3. Applicants must meet all A-State and all program admission requirements.

Admission processing of all international students is done through the Office of International Admissions, a function of International Student Services. They may be reached by e-mail at international@astate.edu, by phone at (870) 972-2329, or by letter at International Admissions, P.O. Box 2230, State University, AR 72467, USA

ADMISSION TO MASTER'S DEGREE PROGRAMS

Applicants to the master's degree programs must hold a baccalaureate degree from an accredited four-year institution with the appropriate undergraduate background in the field of proposed academic emphasis. Applicants must submit the following to the Office of the Registrar:

1. A completed application for admission. Applications should be submitted at least six weeks before the registration date of the term which the applicants plan to attend.
2. A nonrefundable application fee. Checks must be made payable to Arkansas State University. If applications are received without payment, all application materials will be held and the applicant notified that no action will be taken until payment is received.
3. One copy of official transcripts of all previous undergraduate and graduate coursework attempted. Transcripts must be sent directly from the institution(s) previously attended.

Admission test scores are required for admission into certain master's degree programs. Consult the appropriate program section of the Graduate Bulletin or online at <http://www.astate.edu/college/graduate-school/> to determine if the Graduate Record Examination, Miller Analogies Test, or Graduate Management Admission Test is required in the proposed program of academic emphasis.

MULTIPLE GRADUATE DEGREES

Students cannot be admitted to or pursue multiple graduate degrees simultaneously at Arkansas State University. Any exceptions must be approved by the respective academic deans and the Graduate School Dean.

If a student completes a graduate degree and pursues an additional graduate degree, a maximum of nine (9) credits earned from any prior graduate work can be applied to an additional graduate degree. Any hours applied to a graduate degree must be approved by the program chair.

Special exceptions to credit hour limits apply to en route master's degrees, embedded graduate degrees, and dual graduate degrees.

EN ROUTE MASTER'S DEGREES

An en route master's degree is one in which a student who is accepted into a doctoral program has the option to be awarded the master's degree while pursuing a doctoral degree.

EMBEDDED GRADUATE DEGREES

The sharing of credit between graduate certificates, master's and specialist's degrees embedded within a higher degree is at the discretion of the program offering the higher degree.

DUAL DEGREES

A dual degree can be earned when a student studies two different fields at the same time in order to earn two separate degrees. Usually, the different fields are based in two different departments and the degrees are of different types, e.g., an MBA and an MA. Dual degree programs require students to apply and be accepted into both degree programs. Students must meet all requirements for each degree.

Fees and Expenses

<http://www.astate.edu/a/treasurers-office/>

Student account balances are due in full the 11th class day for the Spring and Fall terms; 5th class day for Summer term. Students unable to meet this requirement should contact the Treasurer's Office.

Late fees will be assessed on past-due installment plans and outstanding balances with no payment arrangements.

Those students who fail to clear their accounts will not be permitted to register for future terms. A "hold" will be placed on the student's record, and information will not be released until the account is paid.

Any unpaid charges will remain the liability of the student and may be subject to collection fees, attorney fees, credit bureau reporting, or state income tax attachment (Act 732 of 1986 as amended.)

THE UNIVERSITY RESERVES THE RIGHT TO CHANGE THE AMOUNT OF FEES AND RELATED POLICIES OR TO ADD NEW ONES AT ANY TIME IF SUCH ACTION IS DEEMED NECESSARY.

Any fee changes are reflected on the A-State website. To access downloadable tuition and fee tables, please visit the Treasurer's Office at <http://www.astate.edu/a/treasurers-office/>

REFUND OF FEES SCHEDULE

Full Term Courses		Half Term and Summer Courses	
1st - 5th class day	100%	First and second day	100%
6th - 10th class day	75%	Third and fourth day	75%
On or after 11th class day	None	On or after 5th class day	None

COURSE FEES

Please note that tuition can vary based on fees associated with specific courses. These special course fees can range from \$5.00 to \$255.00 per course.

RESIDENCY REQUIREMENTS FOR FEE PAYMENT

Students should contact the Office of the Registrar concerning residency requirements for university fee purposes. A student who knowingly gives false information in an attempt to avoid out-of-state fee payment shall be subject to dismissal from the university.

FEE WAIVER FOR SIXTY-YEARS OF AGE

Arkansas residents sixty years of age or older are eligible to have their in-state tuition waived. Students eligible for this waiver are responsible for all other charges related to their enrollment. Eligibility is determined as of the first day of the semester. Students seeking this waiver should contact Student Account Services upon completing registration.

INTERNATIONAL STUDENTS ON SCHOLARSHIPS FROM THEIR HOME GOVERNMENTS

All international students on scholarships from their home government should have a valid, up-to-date letter of financial guarantee on file in the International Student's Office. In order for tuition to be billed to the embassy or scholarship agency, the guarantee should be on file no later than June 1 of the next academic year.

PROGRAM SPECIFIC TUITION AND FEES

Please see each program's website and the Treasurer's office for specific tuition rates and fees. Some programs may have special fees associated with them. For all programs, the student activity fee is only charged in the Fall and Spring terms. Books, parking, and application fees are not factored into program costs. Living expenses for online students or clinical rotation students are not included in program costs.

GRADUATE ASSISTANTSHIPS

Graduate assistantships are available to a limited number of qualified applicants in all departments offering graduate degrees. Assistantships are available for both regular semesters and summer terms. Application for an assistantship must be made through the chair of the department in which the student wishes to major. Applications for assistantship will be considered only if the applicant has also applied for admission to Graduate Programs.

A graduate assistantship carries with it a waiver of out-of-state tuition. Doctoral graduate assistantship carries a tuition fellowship covering the cost of tuition.

To be awarded an assistantship, a graduate student must have been admitted to a graduate degree program at Arkansas State. A graduate student whose GPA drops below 3.00 is placed on probation and is not eligible to hold a graduate assistantship, while on probation.

Graduate assistantship renewals are set by the academic department and/or sponsoring unit subject to the maximum length set for the degree level. The maximum length for master and specialist level assistantships is six semesters, excluding summers. An exception is made for students admitted based on a bachelor's degree rather than a master's degree to the Ed.S. in Psychology and Counseling; these students will have a maximum time limit of eight semesters. The maximum length for Ed.D. and Ph.D. assistantships is ten semesters, excluding summers. Students seeking to exceed the maximum length of term must petition their department for an extension. If a student is employed outside of their academic department, they must petition the sponsoring unit.

TUITION-FELLOWSHIP FOR QUALIFIED OUT-OF-STATE STUDENTS

Arkansas State University will offer a waiver of the out-of-state portion of tuition costs in the form of a fellowship to all graduate students who meet the following criteria:

- Graduate students with a cumulative undergraduate GPA of 3.000 or higher
- Attend A-State with 6 or more hours of graduate level courses (Fall or Spring semester) or 3 or more hours of graduate level courses (summer terms)
- Residents of any one of the 49 states in the United States other than Arkansas or resident of any of the U.S. territories

FINANCIAL ASSISTANCE

To be considered for financial assistance, a graduate student must be admitted to Graduate Programs as well as the program they plan to study. Students must be enrolled in at least 4.5 graduate credit hours in a regular term and 3 semester hours for the summer term, to be considered for Financial Aid.

Student Loans are available from a number of sources including, Federal Direct Subsidized and Unsubsidized Student Loans, Federal Direct Grad PLUS Loans and various private lenders. Interested applicants should complete the Free Application for Federal Student Aid at <http://www.fafsa.gov> to begin the process. Additional information may be found at <http://www.astate.edu/a/finaid/>.

ROOM AND BOARD

1. A prepayment of \$100 along with a housing application is required to reserve a room for any regular semester. Students are required to live in university housing during the entire term of enrollment for which the reservation is made. Students who do not fulfill this requirement will forfeit their prepayment. The prepayment is refundable on the following conditions: (a) if cancellation is made, through the Residence Life office in writing prior to the confirmation date on the contract, (b) if the student has occupied the room until the end of the contract period and then checks out of the residence hall, through the Residence Life office, not later than 24 hours after the last official day of the spring semester, (c) if no damages have occurred during the term of occupancy.
2. All occupants of residence halls are required to participate in a university meal plan. (Optional for commuter students and Collegiate Park, Red Wolf Den, Pack Place, The Circle, and The Village rentals)
3. A permanent identification card will be issued to students during the first semester of attendance. Students will use this card to access residence halls, parking lots, laundry, and dining services venues. A \$20 replacement fee will be assessed for lost IDs.
4. The charges for room and board for less than a full semester are computed on the base rate for the period of occupancy.
5. The residence halls and cafeteria will be open during the periods classes are in session. Vacation periods (fall break, spring break, winter break, and Interims) are not included in the regular room and board charges.
6. Residents are expected to occupy their rooms during the entire session for which the rooms are reserved, unless they are forced to withdraw from the university because of illness or other valid reasons.
7. Room and Board may be paid, along with tuition and fees, in four (4) installments. Students seeking such arrangements should contact the Treasurer's Office at (870) 972-2285.

Students are responsible for ALL room and board even when meal cards have been invalidated or they have been locked out due to nonpayment.

Single and Single Deluxe Rooms are only available space permitting.

Rent includes all utilities, internet connection, and cable. Apartments and Northpark Quads Buildings 1 and 2 will be open during all break periods.

MEAL PLAN RATES

Meal plans are mandatory for all residence hall students and optional for students living in the apartments and The Village and commuter students. Meal plans may only be changed a week prior to the opening date for the residence halls. The purchase of any meal plan is dependent on year classification.

The number after the "+" indicates flex dollars. Flex Dollars operate like a declining balance account that can be used at any of our dining venues, including Acanza Dining Hall, the Food Court, the Campus Store, Howl on Wheels, Simply to Go, and A-State concessions at athletic events. Unused flex dollars will carry over from fall to spring if a spring board plan is purchased, but they must be used by the end of the spring semester to avoid forfeiture.

HOUSING FOR FAMILIES AND GRADUATE STUDENTS

Housing is available for married students with children, single parents, graduate students, and non-traditional undergraduates who are at least 26 years of age or older. Application forms and additional information can be obtained from the Office of Residence Life, P.O. Box 2774, State University, AR, 72467 (870)972-2042.

Rent includes all utilities, internet connection, cable, and local phone services. The Village Houses and Apartments will be open during break periods. To access downloadable room and board fee tables, visit the Residence Life website at <http://www.astate.edu/a/residence-life/>.

ROOM AND BOARD CHARGES

Room and board charges are assessed and payable in full at the beginning of each semester. Students seeking installment arrangements should contact Student Account Services at (870) 972-2285. Students receiving financial assistance that equals or exceeds their total charges are not eligible for installment arrangements.

To access downloadable room and board fee tables, visit the Residence Life website at <http://www.astate.edu/a/residence-life/>.

Academic Regulations

STUDENT RESPONSIBILITY

Each student should thoroughly study this Graduate Bulletin and become completely familiar with the organization, policies, and regulations of the university. Failure to do this may result in serious mistakes for which the student must be held fully responsible.

Through a system of academic advising, Arkansas State University assists each student in planning academic programs, developing course schedules, anticipating graduation requirements, and making decisions affecting educational growth and development. The student is required to consult an academic advisor each registration period to review procedures and degree requirements. Academic advisors endeavor to provide such assistance in a timely and accurate manner, **but meeting requirements for graduation is the responsibility of the student.**

STATE LICENSURES AND AUTHORIZATIONS

Arkansas State University is a National Council for State Authorization Reciprocity Agreements Approved Institution. A full list of operating approvals can be found online at:

<http://www.astate.edu/a/academic-partnerships/documents/State+Approvals.pdf>

As licensure requirements may change without notice, **it is the responsibility of the student to confirm the requirements for licensure in his/her state as it applies to the participation in an out-of-state degree program.** To determine which programs are allowed in states and to find relevant state agency contact information please refer to the Program Approval Map found online here:

<https://degree.astate.edu/map/>

ACADEMIC RECORDS PRIVACY RIGHTS

Arkansas State University intends to comply fully with the Family Educational Rights and Privacy Act (FERPA) of 1974 which was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with FERPA office concerning alleged failures by the institution to comply with the Act.

Questions concerning the Family Education Rights and Privacy Act should be referred to the Office of the Registrar.

GRADUATE COURSES AND CREDIT

Graduate credit will be given only for courses described in the Graduate Bulletin under the heading Course Descriptions. A master's degree program traditionally consists of courses numbered 5000 and 6000. Courses numbered 7000 and above are normally reserved for specialist and doctoral programs. Check the particular degree program section for program specific restrictions or deviations.

Master's degree candidates must complete a minimum of 18 semester hours in courses numbered at the 6000 level. For master's degrees requiring more than 30 hours, at least 50 percent of the credit hours must be completed at the 6000 level. A course completed at the 4000 level for undergraduate credit cannot be taken again at the 5000 level for graduate credit. No more than six semester hours of credit earned through independent study may be applied toward a graduate degree.

Graduate students enrolled in courses numbered 5000 through 5999 must do special work in addition to that required of undergraduates in the courses numbered 4000 through 4999.

SPECIAL STUDIES COURSES

Special courses of study may, upon request, be organized in any college at any level of study to meet the needs of interested groups. The second digit of the course numbers for such courses, which must be approved through normal university curriculum channels, will always be 9. The letter prefix will show the department offering the course, the first digit will indicate the level of study, and the last digit will show the hours of credit. Credit earned in some special studies courses may not be applicable toward a degree.

ASSESSMENT REQUIREMENTS

A-State is dedicated to providing quality academic programs and committed to transparency of student learning outcomes; therefore, assessment for improvement of academic programs and learning is of primary importance to the University. Students are responsible for participating in state and institutional assessment examinations or related activities. Failure to participate in required assessments can prevent registration and delay degree completion and graduation.

TRANSFER CREDIT

Subject to the approval of the student's advisor and program director, a student who has a "B" grade average or above in graduate work from another approved institution may be permitted to transfer a maximum of nine semester hours of credit. Only work with "B" or better grades earned at an accredited graduate school and acceptable toward a graduate degree at that institution will be considered for transfer. No correspondence courses may be transferred.

GRADUATE STUDENT ACADEMIC LOAD

The load of full-time graduate students may not exceed 15 semester hours, including any undergraduate courses, per regular semester or the full summer term (which includes May and August interim) without special overload permission. The total academic load resulting from concurrent enrollments at A-State and other institutions shall not exceed the maximum loads stated above. Nine graduate hours or more for Fall and Spring terms are considered full-time; six hours or more cumulative over all summer terms are considered full-time. Graduate students enrolled in an accelerated part-of-term on-line degree program are considered full time when enrolled in six graduate hours and half-time when enrolled in at least three graduate hours. Graduate student academic load may vary by program. Please consult official program handbooks or guidelines to determine approved course loads per semester or part of term.

REGISTRATION

All students are expected to register for classes on the days designated on the Office of the Registrar web page (<http://registrar.astate.edu>) for a given term. Students may enroll through the first week of classes during a semester, or the first day of a five-week term.

Registration is accomplished through accessing the university's web system. Registration is scheduled on a priority basis according to student classification, which is determined by the number of semester credit hours students have completed plus the number of hours in which students are currently enrolled.

ALL STUDENTS ARE REQUIRED TO CONSULT AN ACADEMIC ADVISOR BEFORE REGISTERING FOR CLASSES.

Also, students should be aware that, once they have registered for classes, tuition and fee charges will be generated for those courses for which they have registered. **Students who register and later decide not to attend should withdraw from their classes prior to the start of the semester to avoid tuition and fee assessment.** For charges applicable for withdrawals after classes begin, refer to the index for the REFUND OF FEES SCHEDULE. Instructions for withdrawing are available on the A-State website or from the Wilson Advising Center at 972-3001.

CHANGES IN CLASS SCHEDULE

Changes in class schedules may be made via the web during the scheduled registration periods. Students will not be permitted to add new courses after the first week of classes of a semester or the first class day of a five-week summer term. **STUDENTS SHOULD CONSULT WITH THEIR ACADEMIC ADVISOR BEFORE CHANGING CLASS SCHEDULES. STUDENTS RECEIVING FINANCIAL AID OR SCHOLARSHIP SHOULD ALSO CONSULT THEIR FINANCIAL AID COUNSELOR.**

DROPPING INDIVIDUAL COURSES (OTHER THAN ONLY ENROLLED COURSE)

The final date for dropping individual courses is two weeks prior to the first day of final examinations during Fall and Spring semesters. Academic Affairs will identify appropriate deadlines for other semesters (interims, summer, half sessions). (Refer to the Academic Calendar).

The Academic Calendar is also published on the Office of the Registrar web page (<http://registrar.astate.edu>) for each semester.

Students who drop individual courses will receive a grade of W in the courses. Students enrolled in only one course cannot drop that course, instead they must withdraw from the university.

GRADING SYSTEM

Students have access to view official grades at the end of each semester and each summer term in which they are enrolled. Arkansas State University is on a four-point grading system. The grading system includes permanent letter grades and grade point values as follows:

GRADE	DESCRIPTION	EXPLANATION	GRADE PTS./HR
A	Excellent	Outstanding achievement	4.0
B	Good	Less than outstanding but demonstrating better performance than the normal competency required for satisfactory progress toward graduation	3.0
C	Satisfactory	Performance that demonstrates the normal competency required for satisfactory progress toward graduation	2.0
F	Failure	Performance that does not meet minimum course requirements and for which no degree credit is justified	0.0
FN	Failure	Student fails to attend and does not withdraw from the University	0.0

In addition to the grades listed above, the grading system utilizes the following grades that are not used to compute GPA:

GRADE	DESCRIPTION	EXPLANATION	GRADE PTS./HR
AU	Audit	Performance that meets all course requirements except taking examinations and completing written papers	0.0
CR	Credit	Course does not require letter grades	0.0
IP	In Progress	Thesis and dissertation only	
I	Incomplete	Student could not meet all course requirements for reasons beyond their control (See Incomplete Grades section.)	0.0
NC	No Credit	Performance that does NOT meet minimum degree credit standards for courses not requiring letter grades	0.0
P	Pass	Satisfactory performance	0.0
W	Withdrawal	Student drops an individual course OR for completely withdraws from the university	0.0
WN	Administrative Drop	The University withdraws the student for non-attendance during the first 11 days of class	0.0

Students' grade point averages are computed by multiplying the number of credit hours of each grade by the grade points assigned to that grade and dividing the sum of these several products by the total number of hours in which the students were enrolled. Grades of P, CR, and NC are not assigned grade points, and hours associated with these grades are not used in computing grade point averages.

No grade below "C" will be accepted for graduate credit. Any Grade Change Report form will be accepted only if submitted prior to the close of the semester immediately following the one in which the original grade was recorded. However, the "WN" grade may not be appealed.

AUDITING COURSES

All students auditing a course will pay the regular course audit fee as shown under the heading Fees and Expenses. No credit will be awarded for courses audited. Audited courses will be counted as part of the stated maximum load for a semester or term. Only those persons who have been admitted to a graduate program are eligible to audit a graduate course. Auditors are expected to meet all requirements for a course with the exceptions of taking examinations and completing formal written papers. The names of those persons registered to audit a course will appear on the class roster, and at the end of the enrollment period the professor will determine whether the audit designation AU should be entered on the student's permanent record. Permission of professor is required for audit.

INCOMPLETE GRADES

A grade of "I" will be converted to "F" if all required course materials are not submitted before the last class day of the following semester, as noted on the corresponding academic calendar.

WN - WITHDRAWAL FOR NON-ATTENDANCE

Faculty assign a grade of WN (withdrawal for non-attendance) to students who **have never** attended a single class during the first eleven class days of the semester. Although faculty assign WN's, students are responsible for dropping/withdrawing from all classes they are not attending. Logging into an on-line course is considered the same as attendance for "WN" purposes.

Students should review their schedule of classes using Banner Self Service to make sure their enrollment is accurate. Students who find a mistake need to contact the Office of the Registrar for proper procedures immediately upon discovery. **The WN grade may not be appealed after the close of the semester in which the WN grade was issued.**

WITHDRAWAL FROM THE UNIVERSITY (INCLUDING DROPPING ONLY ENROLLED COURSE)

Students withdrawing from the University after **Sunday** of the first full week of classes in a semester or **Friday** of the first week of classes in a five-week summer term must obtain an Application for Withdrawal at the office of Wilson Advising Center. The Wilson Advising Center advisors will assist students in the process to obtain withdrawal approval from the offices of Student Accounts, Financial Aid, Residence Life and the Library. The completed application must be returned to the Wilson Advising Center by the application nullification date. This process must be completed two weeks prior to the first day of final examinations during Fall and Spring semesters. Academic Affairs will identify appropriate deadlines for other semesters (interims, summer, half sessions). Grades earned in courses completed prior to official withdrawal from the university (i.e., short courses) will not be affected by that withdrawal. Classes that have been withdrawn will remain on the student's transcript with a "W" grade for withdrawal. Once the withdrawal process is complete, the classes withdrawn will not affect the student's GPA.

Students who cease to attend classes without processing an official withdrawal, or who do not complete the withdrawal process will automatically receive an FN in all courses in which they were enrolled.

PROBATION

Any graduate student whose cumulative GPA on all courses taken for graduate credit falls below 3.00 at the end of a semester will be placed on probation. Students may be removed from probation by raising their cumulative GPA to 3.00 or better at the end of a semester. Failure to make a grade of "B" or better in each course taken while on probation will result in suspension from further graduate work. A graduate student on probation may not hold an assistantship and is not eligible for graduation. Some departments have more restrictive rules for probation and suspension which supersede the University regulations.

SUSPENSION

Any graduate student who receives a grade of "F" in any graduate-level course will be suspended from the University and their program.

READMISSION OF SUSPENDED STUDENTS

Upon recommendation of their advisor and department chair with the approval of the Office of the Provost, a student may apply for readmission to the University on probation, after a minimum of one regular semester or full summer.

Readmission to the University does not imply readmission to a particular degree program. A student must reapply to the program and will only be readmitted upon recommendation of their advisor and department chair. A student suspended a second time is ineligible for readmission to the same program. If a student is suspended from more than one program they are ineligible for readmission to the University.

ATTENDANCE POLICY

Class attendance is a critical component of learning and students are expected to attend and participate fully in all scheduled class meetings and activities. Attendance policy is established by the faculty of record for a given class.

Students who do not attend traditional classes or participate in online courses during the first eleven class days of a fall or spring semester, or the first five class days of a five week term, will be assigned a grade of WN (withdrawal for non-attendance) and are administratively withdrawn from the class. The WN grade does not impact GPA calculation. Students who initially attend, but discontinue attendance or completion of assignments without officially dropping a class are assigned a grade of FN (failure for non-attendance.) The FN grade is equivalent to a grade of F for calculating GPA and academic standing. Academic standing, not attendance, determines whether or not the student is eligible for continued enrollment. (See probation, suspension and readmission of suspended students.)

STUDENT IDENTITY AUTHENTICATION INFORMATION

Online classes are assessed a Student Identity Authentication fee to meet accreditation standards. The Federal Compliance Fee is applied to cover costs to meet Higher Learning Commission (HLC) federal compliance standards through authentication processes that include a variety of verification methods that best meet program needs. HLC guidelines require verification of the identity of students participating in online programs and classes institution-wide.

Proctoring services may include live proctoring that allows students to take exams from a secure environment using a personal computer. Instructors will provide specific information as to the methods and services used to authenticate student identity.

Specific information regarding cost per credit hour for the Student Identity Compliance fee may be viewed at <http://www.astate.edu/info/costs/graduate/> or in the Fees and Expenses section of the bulletin.

The fee is assessed at the time that tuition and other fees are charged. Students may pay for the fee with their tuition payment.

FINAL EXAMINATIONS

A final examination is a requirement of all courses except those in which written examinations are not used for evaluating student achievement. Courses that might not have final examinations may include, for example, laboratory courses, clinical experience courses, student-teaching courses, fine arts performance and studio courses, readings courses, special problems, independent studies, and internships.

Final examination schedules are published on the Office of the Registrar web page (<http://registrar.astate.edu>) for each semester. Examinations must be given on the dates scheduled. Exceptions may be granted only for individual students in cases of emergency or other compelling circumstances over which the student has no control. Exceptions must be approved by the dean of the college in which the course is offered.

GRADUATE PROGRAMS APPEALS AND GRIEVANCE PROCESSES

Graduate student appeals and grievance processes are outlined in the A-State Student Handbook available in the Office of Student Affairs. All grievances should first be taken to the student's graduate advisor, who will inform the student of the correct procedures to follow. Following proper channels for appeals and grievances is essential to obtain a timely and efficient resolution.

THESES AND DISSERTATIONS

Some graduate programs require a thesis or dissertation. Students who are writing theses or dissertations must form a committee and have their thesis or dissertation proposals approved at least one semester before the thesis or dissertation is defended. A student will be permitted to register for thesis or dissertation hours only after the Registrar has received the Request to Form Thesis or Dissertation Committee form from the student's department.

Requests to change thesis or dissertation committee members must be made in writing via the Request to Change Thesis or Dissertation Committee form. Changes to a thesis or dissertation committee require approval by the program director (or equivalent), department chair, academic dean, and the graduate dean. In cases where a committee member is being removed, and that person is in the approval

chain, that person's approval will not be required, and the form will instead move on to the next approver. If the graduate dean is the member being removed, the Request will go to the provost for approval.

If the Request is approved, any committee member being removed will be notified of the change by the program director (or equivalent). In cases where the program director (or equivalent) is the member being removed, notification will come from the department chair.

APPROVAL OF THESIS OR DISSERTATION RESEARCH BY THE IRB AND OTHER RESEARCH COMPLIANCE COMMITTEES

Under federal regulation, all institutions receiving funds from any of 16 federal agencies, including USDA, NASA, NSF, EPA, Department of Education, and NIH, are required to establish institutional review boards to monitor all funded research involving humans. Human research is defined as any systematic activity involving the collection and/or analysis of data on human subjects for the purpose of advancing generalizable knowledge, unless this activity is specifically exempted by current federal regulations. It is the policy of A-State to apply the regulations to all research and research related activities, funded or not, which involve humans. Thesis or dissertation research involving human subjects is included. Copies of the A-State Institutional Review Board Information Packet are available in the Office of Research and Technology Transfer.

Research involving live animals, hazardous materials, recombinant DNA, or radioactive materials may also require approval by the appropriate compliance committee. Contact the Research Compliance Officer in the Office of Research and Technology Transfer for additional information (<https://www.astate.edu/a/ortt/research-compliance/>).

ELIGIBILITY FOR DEGREE

A cumulative graduate GPA of 3.00 or higher on all coursework used toward the graduate degree is required and a cumulative graduate GPA of 3.00 or higher on all coursework taken from the academic college of the graduate degree sought is required before a graduate degree can be awarded. Some programs have higher graduation requirements.

COURSE SHARING BETWEEN DEGREES

When pursuing a secondary degree, students may share up to 50% of applicable course work between the degrees (for example, courses taken while obtaining an M.S. in Biology would apply toward an M.S. in Environmental Science). This includes students pursuing more than one concentration on the same degree and those obtaining more than one certificate. However, there is no limit on course sharing between a degree (M.A., M.S., etc.) and a certificate, unless otherwise stated in the degree plan.

APPLICATION FOR THE DEGREE

All candidates are required to submit an intent to graduate notification and pay the graduation fee at the time they enroll for the final registration period before completing all requirements for the certificate or degree. Students who expect to complete requirements during the second summer term must submit an intent to graduate no later than the registration date for the first summer term. If the student is unable to graduate at the end of the semester for which application has been made, a new intent to graduate notification and fee must be submitted. Acceptance of the candidate's intent will be determined by the student's advisors and the Registrar.

TRANSCRIPT POLICIES

Fee Information

1. Unofficial Transcripts are Free of Charge and can be printed online for coursework taken during Fall 1990 and beyond.
2. Official Transcripts are Free of Charge if ordered online through Self-Service and mailed.
3. Requests made via mail, or in person will be processed for a \$10.00 flat fee.
4. For Federal Express delivery, there is an additional fee of \$25.00.
5. There is a \$2.00 charge each for immunization records and test scores.

General Information

1. Official transcripts of the student's A-State permanent record are issued on "security" paper with the seal of the university and the Registrar's signature.
2. Transcripts or other evidence of attendance will not be issued to or for a student who is in debt to the university.
3. Transcripts requested for currently enrolled students during the final exam period may have incomplete information from that term.
4. Transcripts are issued only at the online request of the student or the written request of the student or appropriate institutions and officials. **NOTE: Telephone and email requests are not accepted.** To request a transcript, please visit the Transcript page at <http://www.astate.edu/a/registrar/students/transcripts/>.
5. For transcripts before Fall 1990 alumni must request the first hardcopy from the Transcripts office or contact the office to be set up in our system. Transcripts cannot be viewed or requested online for course work prior to Fall 1990. Once the initial request is received, alumni will be able to view course work totals - not course by course detail - and request future transcripts on the web.
6. All transcripts are mailed out in a single business envelope to the designated address.
7. Immunization records and test scores may be requested in person or by mail. Some former student's immunization records and/or test scores may not be available from the Registrar's office.
8. All duplicate transcripts mailed to home addresses are mailed in individual envelopes.

STUDENTS ACTIVATED FOR MILITARY SERVICE

Arkansas code § 6-61-112 provides the following for students called into full-time military duty during an academic semester.

(a) When any person is activated for full-time military service during a time of national crisis and therefore is required to cease attending a state-supported postsecondary educational institution without completing and receiving a grade in one or more courses, the following assistance shall be required with regard to courses not completed.

(1) Such student shall receive a complete refund of tuition and such general fees as are assessed against all students at the institution or (see '(c)' below).

(A) Proportionate refunds of room, board, and other fees which were paid to the institution shall be provided to the student, based on the date of withdrawal.

(B) If an institution contracts for services covered by fees which have been paid by and refunded to the student, the contractor shall provide a like refund to the institution.

(2) If the institution has a policy of repurchasing textbooks, students shall be offered the maximum price, based on condition, for the textbooks associated with such courses.

(b) When a student is required to cease attendance because of such military activation without completing and receiving a grade in one or more courses, the institution shall provide a reasonable opportunity for completion of the courses after deactivation.

(c) A student activated during the course of a semester shall be entitled, within a period of two years following deactivation, to free tuition for one semester at the institution where attendance had been interrupted unless federal aid is made available for the same purpose.

To prevent students who are receiving veteran's benefits from being penalized and having to repay such benefits, students activated during an academic semester who have not completed sufficient course requirements for the awarding of a grade must withdraw from the university. Students should contact the VA representative in the Office of the Registrar immediately upon notification of activation to initiate the withdrawal process.

VETERANS ADMINISTRATION BENEFITS

Veterans of recent military service, and the dependents of certain other servicemen, may be entitled to educational assistance payments from the Veterans Administration. Montgomery GI Bill Education Benefits pay by the dates of the term. **Clock hours do not apply at A-State** (main campus in Jonesboro).

Reservists and members of the National Guard may also be eligible for monthly educational benefits.

Arkansas State University is an approved institution for veterans and veterans' beneficiaries training.

For information regarding VA Benefits, contact the VA University Official in the Office of the Registrar at (870) 972-2031 or (870) 972-2478.

The Beck PRIDE Center for America's Wounded Veterans is housed in the College of Nursing and

Health Professions. For assistance in coordinating educational and rehabilitation services, please contact the Dean's Office at (870) 972-3112 or visit our website at <http://www.astate.edu/a/beck-pride-center/>.

Note: Tuition and fees for students using Post 9/11 educational benefits will not be submitted until after the 11th class day.

GRADUATE ASSISTANTSHIPS

Students admitted to Graduate Programs may be eligible to receive financial support in the form of an assistantship. The primary purpose of a graduate assistantship is to promote the student's successful completion of an academic program while giving them experience working in an academic environment. Graduate assistantships support the University's teaching, research and service missions for the benefit of students in areas closely related to their chosen field of study. There are three types of graduate assistantships at A-State: Graduate Teaching Assistants (GTA); Graduate Research Assistants (GRA); and Graduate Administrative Support Assistants (GSA).

Graduate Teaching Assistant: A graduate teaching assistant (GTA) works with a supervising faculty member to gain instructional skills and an increased understanding of the discipline. The GTA's primary responsibilities are to support the University's instructional mission. Services provided by a GTA may include some or all of the following: classroom or laboratory teaching; advising and mentoring of students; proctoring examinations; grading papers, homework, and/or projects; accompanying/coaching musical or vocal performances; providing artistic instruction or assisting with preparation and management of materials and programs that are utilized in imparting knowledge; or providing other general assistance in the instruction process.

Graduate Research Assistant: A graduate research assistant (GRA) works with a supervising faculty member to provide general support to the University's research mission. These responsibilities may or may not relate directly to the student's thesis or dissertation. Duties of the GRA primarily involve applying and mastering research concepts, practices, or methods of scholarship. Services provided by a GRA may include some or all of the following: assisting faculty members in a research or creative activity; performing degree-related professional or administrative services that support research, instruction, professional development, or outreach missions of the university; developing and evaluating instructional materials or curricula; or assuming responsibility for designated scholarly endeavors.

Graduate Administrative Support Assistant: A graduate administrative support assistant (GSA) works with University administrators to gain leadership and administrative/program management skills and an increased understanding of the administrative aspects of the discipline. The GSA's primary responsibilities are to provide general services to administrators in support of the University's mission. These responsibilities may or may not be directly related to the student's chosen field of study. Services provided by a GSA may include some or all of the following: assisting with the development of program materials, planning and co-hosting special events, gathering information and generating reports, office correspondence, program promotion, general public administration duties, and other essential functions of the discipline or program.

Student Workers: A student worker is different from a graduate assistant. A student worker is an employed student who may not meet some or all of the above criteria pertaining to graduate assistants. Student workers must be paid based on actual time worked as assigned. Documentation of hours worked via a time sheet and an hourly wage of at least the minimum wage are required.

GRADUATE ASSISTANT LOAD

Master's and Specialist level graduate assistants must complete a minimum of 6 hours of graduate credit during a regular semester and will not be permitted to enroll for more than 12 hours of credit including both graduate and undergraduate courses. Students enrolling for fewer than six hours of graduate credit in a regular semester are not eligible to hold a graduate assistantship. Graduate assistants will be permitted to enroll in a maximum of seven semester hours at the graduate level in a five-week summer term and must complete at least three semester hours at the graduate level in the combined summer terms if they hold an assistantship during any summer term. All Doctoral level graduate assistants are required to take a minimum of nine credit hours during the regular semester and three credit hours during each summer term an assistantship is held.

GRADUATE ASSISTANTSHIP WORKLOAD AND APPOINTMENTS

The University limits the workload of graduate assistantships in order to ensure that students make adequate satisfactory academic progress and complete their degrees within appropriate time limits. A full graduate assistantship is estimated to be the equivalent of 20 hours of work per week. These guidelines are applicable to all academic terms.

GRADUATE ASSISTANTSHIP TUITION WAIVERS

All graduate students employed in a full graduate assistantship (20 hours/week) for the entire semester will receive a waiver of the out-of-state/international portion of the tuition and will be responsible for paying the in-state portion of the tuition for that semester. All graduate students employed in a Doctoral graduate assistantship position will have the in-state portion of the tuition paid by the University (if employed on University funds) or arranged by the student's graduate program (if employed on external or departmental funds). All Graduate Research Assistants at the master's and specialist level will have the in-state portion of the tuition paid as arranged by the student's graduate program.

TIME LIMIT ON THE USE OF GRADUATE PROGRAMS ASSISTANTSHIP FUNDS

Students in Master's programs may not receive assistantship support from the University funds after their sixth semester of enrollment (excluding summer sessions). Students in doctoral programs may not receive assistantship support after their tenth semester of enrollment (excluding summer sessions). Students seeking to exceed the maximum length of term must petition their department for an extension. If a student is employed outside of their academic department, they must petition the sponsoring unit.

GRADUATE ASSISTANT TUITION FELLOWSHIPS

All Graduate Assistant positions carry a tuition fellowship which includes the following benefits:

- tuition charged at the in-state rate
- tuition fellowships totaling 100% for all courses taken by doctoral Graduate Assistants

These tuition fellowships apply only to A-State courses.

POLICIES CONCERNING GRADUATE ASSISTANTSHIPS

1. The Master and Specialist level appointee must complete at least six semester hours of graduate work and no more than 12 hours of both graduate and undergraduate work each semester during the academic year and at least three hours of graduate work cumulative during the summer terms. All Doctoral level graduate assistants are required to take a minimum of nine graduate credit hours during the regular semester and three during each summer term on assistantship.
2. A graduate assistant must have a definite schedule of duties and responsibilities assigned by the dean of the college and the chair of the department in which the assistantship is held.
3. Graduate assistants are not considered to be a part of the faculty of the University, are not entitled to faculty privileges, and will not be included in the Group Life and Hospital Insurance Program sponsored by the University.
4. The appointee should attend regular staff meetings of the college and department as well as the general staff meetings of the University if requested to do so. The appointee should also attend the faculty workshop at the beginning of the academic year if requested to do so.
5. If a student is unable to complete a semester's course work and assistantship responsibilities due to circumstances beyond their control, that semester may not be counted as one of the semesters included in the maximum amount of time for which they may hold the assistantship. In those instances, Graduate Programs must be notified immediately of any such situations warranting consideration of this policy by the department and the student. Final authority for granting an exemption from counting the semester as part of time for holding the assistantship rests with Graduate Programs.

6. The assistantship will be awarded on an academic year or summer term(s) basis. Terms of assignment may differ for some externally-funded assistantships. Reapplication is necessary for the student to be considered for reappointment each contract period. There is no automatic renewal.
7. The appointee must maintain a grade point average of 3.00 or better on all graduate work completed in order to remain eligible for the assistantship.
8. Graduate assistantship renewals are set by the academic department and/or sponsoring unit subject to the maximum length set for the degree level. The master and specialist level assistantship will have a maximum time limit of six semesters, excluding summers. An exception is made for students admitted based on a bachelor's degree rather than a master's degree to the Ed.S. in Psychology and Counseling; these students will have a maximum time limit of eight semesters. Ed.D. and Ph.D. assistantships will have a maximum time limit of ten semesters, excluding summers. Students seeking to exceed the maximum length of term must petition their department for an extension. If a student is employed outside of their academic department, they must petition the sponsoring unit.

Graduate Degree Policies

DOCTORAL DEGREE

GENERAL REQUIREMENTS

A doctoral program of study must include a minimum of 30 semester hours of graduate coursework. Subject to the approval of the students' advisors and the Registrar, doctoral students who have a "B" grade average or above in graduate work from another approved institution may be permitted to transfer a maximum of nine semester hours of credit. Only work with "B" or better grades earned at an accredited institution and acceptable toward a graduate degree at that institution will be considered for transfer.

DISSERTATION REQUIREMENTS

A dissertation is required in the Doctor of Education in Educational Leadership, the Doctor of Philosophy in Heritage Studies, the Doctor of Philosophy in Environmental Sciences and the Doctor of Philosophy in Molecular Biosciences. The department chair/program director and college dean, upon recommendation of the major professor, will approve the student's dissertation committee. The committee comprises a minimum of three (3) committee members. The chair of the committee must hold Regular Graduate Faculty status at Arkansas State University. Students can elect to have two (2) co-chairs when specialized expertise is required for their research topic. If a co-chair is appointed, at least one of the co-chairs must hold Regular Graduate Faculty status at Arkansas State University. All other members must have Regular, Professional, or Affiliate Graduate Faculty status at Arkansas State University and represent areas of the student's research. In the event of a tied vote for approval of the dissertation, the chair will cast the deciding vote. In order to register for dissertation hours, a Request to Form Thesis or Dissertation Committee Form and a Submission of Thesis or Dissertation Proposal Form must be completed and submitted to the Registrar.

TIME TO DEGREE

The time allowed for completion of the doctoral degree is eight (8) years from first enrollment in the program, exclusive of time spent in the armed forces of the United States. Graduate work completed outside of the eight-year time frame cannot be used to satisfy degree requirements. Transfer credit taken prior to admission to A-State may be included in the eight-year, time-to-degree limit. The Doctor of Education in Educational Leadership is an exception to the 8-year time to completion; please see specific department policy for this degree.

PROGRAM POLICIES

Specific doctoral program policies can be found in the Graduate Bulletin sections below:

College of Education and Behavioral Science

Doctor of Education in Educational Leadership

College of Liberal Arts and Communication

Doctor of Philosophy in Heritage Studies

College of Nursing and Health Professions

Doctor of Nursing Practice

Doctor of Occupational Therapy

Doctor of Physical Therapy

College of Sciences and Mathematics

Doctor of Philosophy in Environmental Sciences

Doctor of Philosophy in Molecular Biosciences

EDUCATIONAL SPECIALIST (Ed.S.) DEGREE

GENERAL REQUIREMENTS

The Specialist degree is a sixth-year program of study consisting of a minimum of 30 hours beyond the Master's degree. Each candidate's program will be planned during the initial enrollment period with an advisory committee to ensure that professional requirements are met.

Subject to the approval of the students' advisors and the Registrar, specialist students who have a "B" grade average or above in graduate work from another approved institution may be permitted to transfer a maximum of nine semester hours of credit. Only work with "B" or better grades earned at an accredited institution and acceptable toward a graduate degree at that institution will be considered for transfer.

COMPREHENSIVE EXAMINATION

Some Specialist degrees require a comprehensive examination over the program of study. The comprehensive examination may be written or oral or both as determined by the department in which the major is earned. An examination period is scheduled by each department during each enrollment period. The date of the examination is announced in writing to all enrolled students, and all previously enrolled students who have requested notification, during the second week of the term by each department.

Specialist candidates may choose to take the comprehensive examination at the department's scheduled time during any enrollment period. Students must notify the department chair of the intent to sit for the examination at least two weeks prior to the scheduled test date. Students must pass the examination within the six year time limit for completion of degree requirements. Students will not be permitted to take the comprehensive examination unless a "B" average has been earned on all graduate work completed.

The examination shall be prepared and graded by the comprehensive examination committee selected from the faculty by the chair of the major department and the dean of the college. Results of the examination are submitted to the Registrar. Prior to a deadline established by the University for each enrollment period, the Registrar must be notified in writing when students have passed or failed the examination. Students failing the examination may repeat it at a time approved by the comprehensive examination committee but no earlier than the next scheduled period.

Before repeating the examination, students should consult with their committee. The completion of additional coursework or other additional study may be required.

Students who fail the comprehensive examination a second time will be dropped from candidacy for the degree.

TIME TO DEGREE

The time allowed for completion of the specialist degree is six (6) years from first enrollment in the program, exclusive of time spent in the armed forces of the United States. Graduate work completed outside of the six-year time frame cannot be used to satisfy degree requirements. Transfer credit taken prior to admission at A-State may be included in the six-year limit.

MASTER'S DEGREE POLICIES

GENERAL REQUIREMENTS

The program of study must include a minimum of 30 semester hours of graduate coursework.

Subject to the approval of the students' advisors and the Registrar, master's students who have a "B" grade average or above in graduate work from another approved institution may be permitted to transfer a maximum of nine semester hours of credit. Only work with "B" or better grades earned at an accredited institution and acceptable toward a graduate degree at that institution will be considered for transfer.

COMPREHENSIVE EXAMINATION

Some candidates for master's degrees are required to take a comprehensive examination over their program of study (see each program for more information). The comprehensive examination may be written or oral or both, or may involve a practicum or internship experience as determined by the department in which the major is earned. An examination period is scheduled by each department during each full semester (Fall and Spring) and once in the Summer at the department's discretion. The date of the examination is announced in writing to all enrolled students, and all previously enrolled students who have requested notification, during the second week of the term.

Master's candidates may choose to take the comprehensive examination at the department's scheduled time during any enrollment period. Students must notify the department chair of intent to sit for the examination at least two weeks prior to the scheduled test date.

Students must pass the examination within the six-year time limit for completion of degree requirements. The language requirement or other research tool must have been fulfilled before completing the comprehensive examination for those degree programs having a language requirement or other research tool. Prior to a deadline established by the University for each enrollment period, the Registrar must be notified in writing when students have passed or failed the examination. Students failing the examination may repeat it at a time approved by the comprehensive examination committee but no earlier than the next scheduled period.

Before repeating the examination, students should consult with their committee. The completion of additional coursework or other additional study may be required.

Students who fail the comprehensive examination a second time will not be eligible for the degree.

THESIS

Where required or elected, the thesis will carry a minimum of six hours of credit. Students may not register for thesis credit until they have submitted a Request to Form a Thesis or Dissertation Committee form and the committee has approved the proposed topic. Credit is awarded only upon completion and approval of the thesis. The student must be enrolled for thesis credit the semester it is completed and approved by committee, even if all required thesis-credit hours have already been completed. Upon the successful oral defense of the thesis, a grade of Pass ("P") will be assigned.

The thesis must demonstrate the student's capacity for creative expression, research, ability to organize and interpret data, and ability to report research in an acceptable style. The thesis subject is approved by the major professor and by the student's thesis committee no later than the close of the semester preceding that in which the student is planning to complete degree requirements. If degree completion is planned for a summer session, the thesis subject must be approved no later than 60 days after the first day of classes in the spring semester. The thesis shall be in the form prescribed by the University as presented in the Guide for Writers of Dissertations and Theses, available on the Graduate Programs website.

The student's thesis committee approves the thesis, including passing its defense. The thesis must be delivered to the major professor at least four weeks before the anticipated commencement date. The original, with the Thesis Defense Form signed by all thesis committee members, must be submitted to the Registrar by the deadline listed on the University's Academic Calendar. The completed thesis will be submitted online through ProQuest according to the Thesis/Dissertation guide. The student is required to purchase three copies of their thesis for: the Library, their advisor and their department.

THESIS COMMITTEE

The department chair/program director and/or college dean, upon recommendation of the major professor, will approve the student's thesis committee. The committee comprises a minimum of three (3) committee members. The chair of the committee must hold Regular Graduate Faculty status at Arkansas State University. Students can elect to have two (2) co-chairs when specialized expertise is required for their research topic. If a co-chair is appointed, at least one of the co-chairs must hold Regular Graduate Faculty status at Arkansas State University. All other members must have Regular, Professional, or Affiliate Graduate Faculty status at Arkansas State University and represent areas of the student's research. In order to register for thesis hours, a Request to Form Thesis or Dissertation Committee Form and a Submission of Thesis or Dissertation Proposal Form must be completed and submitted to the Registrar before students can enroll in thesis hours.

TIME TO DEGREE

The time allowed for completion of the master's degree is six (6) years from first enrollment in the program, exclusive of time spent in the armed forces of the United States. Graduate work completed outside of the six-year time frame cannot be used to satisfy degree requirements. Transfer credit taken prior to admission at A-State may be included in the six-year limit.

Academic Programs

Arkansas State University offers work leading to the following graduate degrees with major fields of emphasis as indicated:

DOCTORAL DEGREES

Doctor of Philosophy (Ph.D.)

Environmental Sciences
Heritage Studies
Molecular Biosciences

Doctor of Education (Ed.D)

Educational Leadership

Doctor of Nursing Practice (DNP)

Doctor of Nursing Practice (DNP) - Nurse Anesthesia

Doctor of Occupational Therapy (OTD)

Doctor of Physical Therapy (DPT)

SPECIALIST DEGREES

Specialist in Education (Ed.S)

Educational Leadership —Curriculum Director Track —Gifted, Talented and Creative Director Track —Principalship Track —Special Education Director Track —Superintendency Track
Psychology and Counseling —Flexible Options Track —Clinical Mental Health Counseling Track —School Psychology Track
Reading

MASTER'S DEGREES

Master of Accountancy in Accounting with Data Analytics (M.Acc)

Master of Arts (M.A.)

Biology
Communication Studies
Criminal Justice
English
History (emphasis in): —Public History —Global History
Political Science
Sociology

Master of Arts in Teaching (M.A.T.)

Teaching
—Elementary Level Initial Licensure
—Middle Level Initial Licensure
—Special Education K-12
—Business Technology
—Art Education K-12

Master of Athletic Training (M.A.T.)**Master of Business Administration (M.B.A.)**

Concentration in:
—Finance
—Healthcare Administration
—International Business
—Management Information Systems
—Marketing
—Supply Chain Management

Master of Communication Disorders (M.C.D.)**Master of Engineering Management (M.E.M.)****Master of Music - Performance (M.M.)**

Concentration in:
—Collaborative Piano
—Composition
—Conducting
—Jazz Studies
—Performance - Instrumental or Vocal
—Piano Performance and Pedagogy

Master of Music Education (M.M.E.)

—Choral
—Instrumental

Master of Public Administration (M.P.A.)

—Nonprofit Management
—Public Management

Master of Science (M.S.)

Biology
Chemistry
College Student Personnel Services
Computer Science
—Cyber Security
—Data Science
—High Performance Computing
Disaster Preparedness and Emergency Management
Early Childhood Services
Environmental Sciences

Exercise Science
Mathematics
Media Management
Molecular Bioscience
Nutrition and Dietetics
Psychological Science
Sport Administration
Statistics
Strategic Communication
—Global Strategic Communication
—Information Technology Law and Policy
—Social Media Management

Master of Science in Agriculture (M.S.A.)

Emphasis in:
—Agricultural Business and Economics
—Agricultural Education
—Animal Science
—Digital Agriculture
—Plant and Soil Science
—Vocational-Technical Administration

Master of Science in Education (M.S.E.)

Biology
Chemistry
Computer Science Education
Curriculum and Instruction
—Curriculum Director Track
—Gifted, Talented and Creative Director Track
—Special Education Director Track
Early Childhood Education
English
Educational Leadership
Educational Theory and Practice
Mathematics
Physical Education
Reading
School Counseling
—Crisis and Trauma
—Special Populations
Social Science
Special Education - Gifted, Talented and Creative
Special Education Instructional Specialist K-12

Master of Science in Engineering (M.S.Engr.)

Engineering —Civil —Electrical —Mechanical

Master of Science in Mass Communications (M.S.M.C.)

Journalism
Radio-Television

Master of Science in Nursing (M.S.N.)

Nursing —Adult Gerontology Acute Care Nurse Practitioner —Family Nurse Practitioner —Nurse Administrator —Nurse Educator
Nurse Anesthesia

Master of Social Work (M.S.W.)**Professional Science Masters (P.S.C.)**

Biotechnology

GRADUATE CERTIFICATES

Addiction Studies
Adult Gerontology Acute Care Nurse Practitioner
Building Level Administration
Business Analytics
Clinical Mental Health Counseling
Computer Science Education
Curriculum Director
Cyber Security
Data Science
Dyslexia
Engineering Management
Family Nurse Practitioner
Financial Management
Gifted, Talented, and Creative Director
Global Supply Chain Management
Health Communication
High Performance Computing
History

Instructional Specialist - Gifted, Talented and Creative
Marketing
Mental Health Counseling
Nurse Administration
Nurse Educator
Play Therapy
Project Management
Special Education Director
Special Education K-12
Statistics
Superintendent

NON-DEGREE PROGRAMS

Adult Education Certification
Career Development Certification
Endorsement in Teaching Grades 5 and 6
Endorsement in Teaching Ages 3 and 4
Ph.D. Minor in Statistics

College of Agriculture

AGRICULTURE MISSION STATEMENT

To prepare students for entry and career advancement in the food, fiber and natural resources industry, which involves crop and livestock production, agribusiness, value-added processing, public service, public education and rural leadership. To conduct problem-solving research related to crop and livestock production, natural resource management, and value-added processing in collaboration with private and other public sector entities in an environmentally sound and sustainable manner.

AGRICULTURE PROGRAMS OF STUDY

The College of Agriculture (CoA) offers coursework leading to the Master of Science in Agriculture (MSA) degree with concentrations in Agricultural Education, Agricultural Business and Economics, Animal Science, Plant and Soil Science, and Vocational Technical Administration. All MSA programs require students to apply to either the Thesis or Non-thesis option. Students interested in pursuing a Ph.D. (<http://www.astate.edu/college/sciences-and-mathematics/doctoral-programs/>) in either the Molecular Biosciences or the Environmental Sciences programs (both interdisciplinary) may do so with mentorship by approved faculty in the CoA.

AGRICULTURE APPLICATION AND ADMISSION PROCEDURES

Admission to the CoA graduate program begins with applying through Graduate Admissions. The application can be found online (<http://www.astate.edu/info/admissions/graduate>). The prospective student should review the graduate catalog to select a degree program in the CoA and select either the Thesis or Non-thesis option before applying. Priority application deadlines are February 15 for fall admission and September 15 for spring admission, although applications will continue to be accepted and reviewed after the priority deadlines. If the applicant meets all of the graduate admission requirements, the student's packet is forwarded to the CoA Dean who initiates review of the application based on the Thesis or Non-thesis option preference.

AGRICULTURE ADMISSION REQUIREMENTS

The prospective student must meet all admission requirements of Graduate Programs and the CoA to be admitted. There may be additional requirements and expectations as a condition for acceptance to specific degree programs. The advisor is key in the planning and development of the student's program of study and research experience. Students are expected to meet with their advisor throughout the graduate experience to ensure satisfactory progress toward a degree.

AGRICULTURE NON-THESIS OPTION

Non-thesis option applications for the MSA are routed to the CoA Associate Dean for review and processing. The CoA Associate Dean makes a determination for acceptance based on criteria established by the CoA Graduate Committee and assigns a graduate faculty advisor for accepted applicants.

AGRICULTURE THESIS OPTION

Thesis option applicants for the MSA are routed to the CoA Graduate Committee Chair for consideration by the Agriculture Graduate Committee. If a graduate faculty advisor is secured, the faculty member will indicate the subject of the proposed research project. If a student has visited with a qualified graduate faculty member and requests that person to serve as their thesis advisor, a signed letter from the graduate faculty member to that effect must be included in the application materials. If a CoA faculty member is identified to serve as thesis advisor for an applicant, Graduate Admissions will be notified to admit the applicant as a thesis student. Qualified applicants that are not assigned a thesis advisor by the CoA Graduate Committee may be eligible for non-thesis admission.

Admission to Agriculture Graduate Programs is determined by Graduate Admissions and will be communicated to the applicant by Graduate Admissions. Meeting the minimum criteria for acceptance into the Master of Science in Agriculture graduate program does not guarantee admission into either the thesis or non-thesis options. Admission may be limited due to physical and human capital resources.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

Program of Study for the Master of Science in Agriculture Degree

REQUIREMENTS FOR ADMISSION TO THE MSA

Students seeking admission into the Master of Science in Agriculture (MSA) with a concentration in Agricultural Business and Economics, Animal Science, or Plant and Soil Science must meet the following additional specific program requirements:

- An undergraduate grade point of 2.75 or greater (on a 4.0 scale) or a 3.0 or greater on the last 60 hours of undergraduate work. Students judged to be deficient in some areas of undergraduate preparation may, at the discretion of their graduate advisor, be assigned undergraduate courses (6 to 12 hours) as a condition of admission.
- Contact information (including email and phone number) for three references.
- A statement of educational objectives and career goals (approximately 500 words).
- Indicate preference of either the Non-thesis or Thesis option.

Applicants not meeting the specified grade-point requirement may be granted conditional admission if they meet other Graduate Programs admission requirements. Students with an undergraduate GPA of 2.5 or greater (on a 4.0 scale) or a 2.75 or greater on the last 60 hours, may be granted conditional admission. Students admitted on a conditional basis must complete 12 hours of approved graduate level coursework within two semesters and earn a minimum 3.00 GPA with no more than three hours of "C" in the 12 hours.

Applicants meeting the minimum requirements for the program are not guaranteed acceptance into the program. Admittance to the College of Agriculture graduate program is a competitive process, and the number of students admitted to the program each term is dependent upon the quality of the applicants and the resources available within the College.

REQUIREMENTS FOR ADMISSION TO THE MSA - AGRICULTURAL EDUCATION

Students seeking admission into the Master of Science in Agriculture with a concentration in Agricultural Education must meet the following additional program requirements:

- Completed a minimum of 18 semester hours of professional education courses including the requirements for a valid teaching certificate. Applicants who do not meet the requirements for a valid teaching certificate will be required to complete the undergraduate courses required in the program of study. These courses may be completed concurrently with graduate work but must be completed before the degree will be awarded.
- Contact information (including email and phone number) for three references.
- Statement of educational objectives and career goals (approximately 500 words).
- Indicate preference of either the Thesis or Non-thesis option.

Students granted unconditional admission into the Master of Science in Agriculture with a concentration in Agricultural Education must have a minimum cumulative undergraduate grade point average of 2.75 on a 4.00 scale or a 3.0 on the last 60 hours of undergraduate work.

Students with an overall undergraduate GPA of 2.5 or greater (on a 4.0 scale) or a 2.75 or greater on the last 60 hours may apply for conditional admission. For conditional admission, a student must complete 12 hours of graduate level coursework within three semesters and earn a 3.00 GPA with no more than three hours of "C" in the 12 hours.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

REQUIREMENTS FOR ADMISSION TO THE MSA - VOCATIONAL-TECHNICAL ADMINISTRATION

Students seeking admission into the Master of Science in Agriculture with a concentration in Vocational-Technical Administration must meet the following additional program requirements:

- An undergraduate grade point of 2.75 or greater (on a 4.0 scale) or a 3.0 on the last 60 hours of undergraduate work. Students judged to be deficient in some areas of undergraduate preparation may, at the discretion of their graduate advisor, be assigned undergraduate courses (6 to 12 hours) as a condition of admission.
- Contact information (including email and phone number) for three references.
- A statement of educational objectives and career goals (approximately 500 words).
- Indicate preference of either the Thesis or Non-thesis option.

Students with an undergraduate GPA of 2.5 or greater (on a 4.0 scale) or a 2.75 or greater on the last 60 hours may be granted conditional admission. For conditional admission, a student must complete 12 hours of graduate level coursework within three semesters and earn a 3.00 GPA with no more than three hours of "C" in the 12 hours.

AGRICULTURE MSA CORE COURSES

Students pursuing the MSA with a concentration in Agricultural Business and Economics, Animal Science, or Plant and Soil Science are required to take the following Agriculture Core Courses:

Agriculture MSA Core Courses:	Sem. Hrs.
AGRI 5233, Experimental Agricultural Statistics OR AGRI 6213, Experimental Designs OR Graduate-level statistics course approved by the student's graduate advisory committee	3
AGRI 6362, Graduate Communication Skills I: Professional Writing	2
AGRI 6371, Graduate Communication Skills II: Professional Presentations	1
Total Required Hours:	6

COURSES IN THE CONCENTRATION AREA

Each student, with the assistance and approval of their graduate advisor and graduate committee, will select courses leading to specialized training in Agricultural Business and Economics, Animal Science, or Plant and Soil Science, Agricultural Education, or Vocational-Technical Administration.

THESIS OR NON-THESIS OPTION

Students pursuing the Thesis option will count six hours of thesis toward the degree. Students interested in pursuing a Ph.D. in the future should consult with their faculty advisor before choosing either the Thesis or Non-thesis option for the Master of Science in Agriculture degree.

Agriculture

Master of Science in Agriculture Concentration in Agricultural Business and Economics

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Agriculture MSA Core Courses:	Sem. Hrs.
(See Program of Study for MSA Degree)	6
Concentration Area (Agricultural Business and Economics): Each student, with the assistance and approval of their graduate advisor and graduate committee, will select courses leading to specialized training in Agricultural Business and Economics. Students pursuing the Thesis option will count six hours of thesis toward the degree.	Sem. Hrs.
Thesis Hours	0-6
Courses in Concentration Area	18-24
Sub-total	24
Total Required Hours:	30

Agriculture

Master of Science in Agriculture Concentration in Agricultural Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Concentration Area (Agricultural Education): Students pursuing the Thesis option will count six hours of thesis toward the degree.	Sem. Hrs.
VOED 5443, Advanced Methods of Teaching in Career and Technical Education	3
VOED 6513, History and Principles of Vocational Education	3
VOED 6573, Introduction to Research and Evaluation in Vocational Education	3
Thesis Hours	0-6
Courses in Concentration Area	9-15
Sub-total	24
Professional Education Requirements:	Sem. Hrs.
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Statistics and Research	3
PSY 6513, Advanced Educational Psychology	3
Sub-total	9
Total Required Hours:	33

Agriculture

Master of Science in Agriculture Concentration in Animal Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Agriculture MSA Core Courses:	Sem. Hrs.
(See Program of Study for MSA Degree)	6
Concentration Area (Animal Science): Each student, with the assistance and approval of their graduate advisor and graduate committee, will select courses leading to specialized training in Animal Science. Students pursuing the Thesis option will count six hours of thesis toward the degree.	Sem. Hrs.
Thesis Hours	0-6
Courses in Concentration Area	18-24
Sub-total	24
Total Required Hours:	30

Agriculture

Master of Science in Agriculture Concentration in Digital Agriculture

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Agriculture MSA Core Courses:	Sem. Hrs.
(See Program of Study for MSA Degree)	6
Concentration Area (Agricultural Systems Technology):	Sem. Hrs.
Each student, with the assistance and approval of their graduate advisor and graduate committee, will select courses leading to specialized training in Digital Agriculture. Students pursuing the Thesis option will count six hours of thesis toward the degree.	
Thesis Hours	0-6
Courses in Concentration Area	18-24
Sub-total	24
Total Required Hours:	30

Agriculture

Master of Science in Agriculture Concentration in Plant and Soil Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Agriculture MSA Core Courses:	Sem. Hrs.
(See Beginning of Agriculture Section)	6
Concentration Area (Plant and Soil Science):	Sem. Hrs.
Each student, with the assistance and approval of their graduate advisor and graduate committee, will select courses leading to specialized training in Plant and Soil Science. Students pursuing the Thesis option will count six hours of thesis toward the degree.	
Thesis Hours	0-6
Courses in Concentration Area	18-24
Sub-total	24
Total Required Hours:	30

Agriculture

Master of Science in Agriculture Concentration in Vocational-Technical Administration

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Concentration Area (Vocational-Technical Administration): Students pursuing the Thesis option will count six hours of thesis toward the degree.	Sem. Hrs.
VOED 6463, Resource Management in Vocational Education	3
VOED 6473, School and Community Relations in Vocational Education	3
VOED 6503, Program Management in Vocational Education	3
VOED 6523, Student Services Management in Vocational Education	3
VOED 6533, Human Resource Management in Vocational Education	3
VOED 6563, Instructional Management in Vocational Education	3
Thesis Hours	0-6
Courses in Concentration Area	0-6
Sub-total	24
Professional Education Requirements:	Sem. Hrs.
ELFN 6773, Introduction to Statistics and Research	3
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
VOED 6513, History and Principles of Vocational Education	3
Sub-total	9
Total Required Hours:	33

Neil Griffin College of Business

MISSION STATEMENT

The mission of the A-State Neil Griffin College of Business is to provide high-quality management education to traditional and non-traditional students in the Mid-South and to provide support for businesses and communities through research, economic development activities, and consultative services.

The College strives to build challenging programs of excellence with emphasis on leadership/values, international business, technology, entrepreneurship, and economic development through an educational process that fosters analytical thinking, problem solving, communication skills, and experiential learning. Emphasis is placed on undergraduate education, while meeting the needs of the business community through select graduate degrees and professional workforce development programs.

The College is committed to enhancing professional development of faculty and staff through support of applied research, instructional development, and professional growth activities in a collegial environment. Professional development is also provided to students through student organizations, honor societies, and action-based learning.

The Mission is strengthened through ongoing review and continuous improvement of all programs and activities.

DEGREES OFFERED

The Neil Griffin College of Business offers work leading to the Master of Business Administration degree, and the Master of Accountancy in Accounting with Data Analytics degree.

All general Graduate Admissions requirements listed elsewhere in the bulletin are applicable to these degree programs in addition to the specific program requirements.

In addition, the Neil Griffin College of Business offers certificates in several fields of specialization.

ADMISSION REQUIREMENTS

An applicant's complete application package, including application to Graduate Programs, official transcripts, official GMAT/GRE scores, required application fee and, when required, proof of immunization must be received in the Office of Graduate Admissions no later than 30 days prior to the beginning of classes each semester. To ensure time for issuance of an I-20, international students must submit a complete application, including all the above plus official TOEFL scores and a financial guarantee no later than 90 days prior to the beginning of classes each semester.

Non-degree candidates cannot enroll in Neil Griffin College of Business graduate courses unless they meet all of the admission requirements of degree candidates. Students admitted into graduate programs outside of the Neil Griffin College of Business will not be permitted to enroll in non-foundation graduate courses within the Neil Griffin College of Business unless they either meet the minimum GPA requirement required for admission into the program OR have maintained an overall graduate GPA of 3.00 or higher since admission at Arkansas State.

CERTIFICATE ADMISSIONS

For unconditional admittance, applicants to graduate certificate program must meet the following requirements:

- A. An undergraduate degree (BA or BS) in any field of study.
- B. A minimum cumulative grade point average of 2.75, or 3.00 on the last sixty hours.
- C. International candidates must meet the admission requirements of international students as stated in the Graduate Bulletin.

Applicants unable to meet either grade point average for unconditional admittance who have a minimum grade point average of 2.50 may apply for conditional acceptance, subject to review of the applicants work history by the Neil Griffin College of Business Certificate Program Director or Graduate Advisor.

BUSINESS COMMUNICATION FOR INTERNATIONAL STUDENTS

All incoming graduate students are required to take Business Communication (BCOM 2563) if English is his or her second language. Students may test out of the course at the beginning of the first semester.

Program of Study for the Master of Accountancy in Accounting with Data Analytics Degree

The Master of Accountancy in Accounting with Data Analytics program will provide those with undergraduate training in accounting with knowledge and skills needed to advance beyond the entry-level stage in the accounting profession, provide students who have undergraduate training in accounting with the in-depth understanding of accounting issues needed for success on licensure and certification examinations, and serve as foundation work for those who may choose to pursue advanced graduate work.

ADMISSION REQUIREMENTS

Those admitted to the program must possess an undergraduate degree, meet the same GPA and Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE) formula as required in the current MBA program, plus have a C or better in the following key undergraduate accounting courses:

- Intermediate Accounting I (or equivalent content)
- Intermediate Accounting II (or equivalent content)
- Cost or Managerial Accounting at junior level or above
- Tax I
- Auditing
- Accounting Information Systems
- Government and Not-for-Profit Accounting

The accounting prerequisite courses must have been completed at a US College or University accredited by one of the regional accrediting organizations recognized by the Council for Higher Education Accreditation. For example, the Higher Learning Commission (HLC).

Those admitted to the program do not need to meet the general business, or foundation, prerequisites that apply to MBA students.

ELECTIVE COURSES

Six hours of electives may be selected in business or accounting. Students may take up to a total of four hours at the 5000 level; otherwise elective courses must be taken at the 6000 level.

Under special circumstances, a student may substitute a directed individual study for an elective. All directed individual studies must be taken after a student has completed 24 hours of coursework with a GPA of 3.5 or higher. Directed individual studies should be targeted toward a publication and/or paper/presentation as an outlet for the research. Students are also expected to make a presentation on their research to a group of Graduate Faculty.

ACCELERATED MASTER OF ACCOUNTANCY IN ACCOUNTING WITH DATA ANALYTICS

The Accelerated Master of Accountancy in Accounting with Data Analytics degree option allows outstanding Arkansas State University undergraduate accounting majors to begin taking Master of Accountancy in Accounting with Data Analytics courses during their junior year. Eligible students are allowed to apply up to 12 hours of graduate credits toward both the undergraduate and graduate degree requirements. Only courses with a B or better will be eligible to count for graduate credit. After completing the B.S. degree, this dual counting enables a student to earn a Master of Accountancy in Accounting with Data Analytics degree with only six additional courses (18 credits).

Eligible students receive undergraduate and graduate credit for the following courses:

ACCT 5023 – Advanced Accounting and International Issues
 ACCT 5113 – Tax Accounting II
 ACCT 5133 – Accounting Statistics
 ACCT 5183 – Accounting Analytics

Accounting with Data Analytics

Master of Accountancy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ACCT 5023, Advanced Accounting and International Issues	3
ACCT 5113, Tax Accounting II	3
ACCT 5133, Accounting Statistics	3
ACCT 5183, Accounting Analytics	3
ACCT 6073, Applied Professional Research	3
ACCT 6153, Audit Analytics	3
MIS 6473, Data Mining	3
MIS 6543, Business Analytics	3
Sub-total	24
Electives:	
Students who received credit at the undergraduate level for ACCT 4023, ACCT 4113, ACCT 4133, or ACCT 4183, or a course with equivalent content, may not receive graduate credit for the same course. Instead, those students must take additional accounting electives at the 5000-level (subject to the four course maximum) or 6000-level.	
6000-level Business or Accounting elective	6
Sub-total	6
Total Required Hours:	30

Program of Study for the Master of Business Administration

The Arkansas State University MBA Program is a professional degree program designed to prepare students of all educational and professional backgrounds for management positions in all types of organizations. As such, the program stresses the development of analytical, problem-solving and decision making competencies for the dynamic, complex global organizational and social environments.

The program of study includes the functional areas of business with the opportunity to obtain emphasis areas in each, as well as the option to select specialty emphasis areas. This provides students with the flexibility to tailor their MBA degrees to individual needs and goals. With courses offered on campus in late afternoon and evenings and also on-line, the program accommodates working professionals seeking career advancement and/or career changes as well as recent graduates desiring to move into positions of responsibility in organizations.

The MBA with a Concentration in Healthcare Management program is designed to allow students to complement their studies in business administration with in-depth coverage of the core components of the healthcare administration arena and the unique issues and challenges facing healthcare organizations in the dynamic healthcare industry. Students will complete the 27 hours of the MBA core and 15 hours of graduate level courses in Healthcare Administration.

The MBA with Concentration in IB program is designed to allow graduate business students the ability to select in-depth coverage of the core components of today's IB field while furthering their business administration academic career. Students will complete the 27 hours within the MBA core and 12 additional hours of graduate level IB coursework.

The MBA with Concentration in MIS program is designed to allow graduate business students the ability to select in-depth coverage of the core components of today's IT field while furthering their business administration academic career. Students will complete the 27 hours within the MBA core (which includes two graduate level MIS course) and 9 additional hours of graduate level MIS coursework.

The MBA with a Concentration in Marketing program is designed to allow students to complement their studies in business administration with in-depth coverage of the core components of marketing theory as applied in today's marketing environment. Students will complete the 27 hours within the MBA core (which includes one graduate level marketing course) and 9 additional hours of graduate level marketing coursework.

The MBA with a Concentration in Supply Chain Management program is designed to allow students to complement their studies in business administration with in-depth coverage of the core components of the supply chain functions of business as they relate to firms operating in a dynamic global business environment. Students will complete the 27 hours of the MBA core and 12 additional hours of graduate level courses in logistics.

The MBA with a Concentration in Finance program is designed to allow students to complement their studies in business administration with in-depth coverage of the core components of finance, including corporate finance, financial markets and institutions, and investments. Students will complete the 27 hours within the MBA core and 9 additional hours of graduate level finance coursework.

UNCONDITIONAL ADMISSION

Entering students will be granted unconditional admission if they meet one of the following sets of criteria:

- A minimum cumulative GPA of 2.75, or its equivalent on a 4.0 scale, on all undergraduate coursework completed AND a minimum GMAT composite score of 480. A minimum cumulative GPA of 3.00, or its equivalent on a 4.0 scale, on the last 60 hours of undergraduate coursework completed AND a minimum GMAT composite score of 480.
- A minimum cumulative GPA of 2.75, or its equivalent on a 4.0 scale, on all undergraduate coursework completed AND a minimum GRE composite score of 300 with a minimum of 145 on the Verbal Section and a minimum of 145 on the Quantitative Section.
- A minimum GPA of 3.00, or its equivalent on a 4.0 scale, on the last 60 hours of undergraduate coursework completed and a minimum GRE composite score of 300 with a minimum of 145 on the Verbal Section and a minimum of 145 on the Quantitative Section.

- GMAT/GRE exams are waived for individuals with a minimum 3.0 GPA for the last 60 hours of undergraduate education at a U.S. AACSB college of business, or 5 years of progressively responsible positions at a supervisory or managerial level, or 5 years experience at a commissioned officer level in the U.S. military.

Information pertaining to the GMAT or GRE may be obtained by contacting the Testing Center at (870) 972-2038. International students must submit the required TOEFL or IELTS scores.

CONDITIONAL ADMISSION

An applicant for the Master of Business Administration (MBA) degree program may be admitted conditionally in one of the following ways at the discretion of the Director of Graduate Programs:

- A minimum overall undergraduate GPA of 2.75. However, no more than nine hours of MBA coursework (excluding foundation courses) may be taken by an individual who has not met the minimum GRE/GMAT score;
- A minimum overall undergraduate GPA of 3.25 AND a minimum GMAT composite score of 450;
- A minimum overall undergraduate GPA of 3.25 AND a minimum GRE composite score of 280 with a minimum of 140 on the verbal section and a minimum of 140 on the quantitative section.
- If the candidate has five or more years of managerial work experience, as determined by the Director of Graduate Programs, the minimum GPA requirement is waived and the candidate must score a minimum of 450 on the GMAT OR a minimum of 280 on the GRE (with a minimum of 140 on the verbal section and a minimum of 140 on the quantitative section).

To be moved from conditional to unconditional admission under option #1 above, the candidate must complete either the GRE or the GMAT with the required minimum score for unconditional admission. If admitted conditionally under options #2 - #4 above, the candidate must have achieved a minimum GPA of 3.25 in the first twelve hours of 6000-level courses in the MBA program. If the candidate fails to meet these requirements, they will not be allowed to continue in the program unless the minimum GRE/GMAT scores for unconditional admission are achieved.

MBA FOUNDATION COURSES

The foundation courses serve students who wish to enter the MBA program from a nonbusiness baccalaureate background. The required foundation courses may be taken at the graduate level (fast track) or the undergraduate level, or a combination of both. Each graduate level course substitutes for one or two undergraduate courses, as shown below. No foundation course is a part of the MBA program and the grades received from the Fast Track courses will NOT be counted toward your graduate GPA for retention/graduation purposes as discussed under "Eligibility for Degree" of the Academic Policies and Procedures detailed in this bulletin.

Deficient Grades: Should a student receive more than 6 hours of "C" or lower in 5000- or 6000-level graduate degree credit courses within the Neil Griffin College of Business, that student will not be allowed to continue in the program in subsequent semesters regardless of overall GPA.

(NOTE: 5000-level Foundation Courses do not carry graduate degree credit in the Neil Griffin College of Business).

Graduate Foundation Courses (Fast Track):	Undergraduate Foundation Courses:
MBA 500V, Survey of Accounting	ACCT 2033, Introduction to Financial Accounting AND ACCT 2133, Introduction to Managerial Accounting
MBA 501V Survey of Finance	FIN 3713, Business Finance
MBA 502V, Survey of Microeconomics	ECON 2313, Principles of Macroeconomics
MBA 503V, Survey of Macroeconomics	ECON 2323, Principles of Microeconomics
MBA 507V, Survey of Law	LAW 2023, Legal Environment of Business
MBA 508V, Survey of Statistics	ECON 2113, Business Statistics
MBA 509V, Survey of Operations Management	CIT 3523, Operations Management

All applicants who enter the program without the necessary foundation courses must complete the foundation courses or their undergraduate equivalent at an IAME accredited institution with a grade of "B" or better. When a student has completed the foundation course(s) in a specific area, she/he may take the core course in that area. All the foundation courses must be taken before a student is admitted to candidacy.

Non-degree candidates cannot enroll in Neil Griffin College of Business graduate courses unless they meet all of the admission requirements of degree candidates. Students admitted into graduate programs outside of the Neil Griffin College of Business will not be permitted to enroll in non-foundation graduate courses within the Neil Griffin College of Business unless they either meet the minimum GPA requirement required for admission into the program OR have maintained an overall graduate GPA of 3.00 or higher since admission at Arkansas State.

NEIL GRIFFIN COLLEGE OF BUSINESS MBA CORE COURSES

The program consists of a core curriculum of 27 hours. This common body of knowledge is aimed at developing competency for overall management and leadership. In addition, students may select electives in their field of choice to develop emphasis areas to meet their needs. The core courses plus the electives result in a 33-hour program. Students with a non-business undergraduate degree typically must take up to 15 hours of the Fast-Track foundation courses, or their equivalent, resulting in as much as a 48-hour program for such students.

All courses must be taken at the 6000 level. However, those students seeking to sit for the CPA exam may take one 5000 level course in accounting to help prepare them for the exam while meeting the 150-hour rule for the exam.

MGMT 6423, Strategic Management, must be taken after all core courses have been taken or during the student's last semester of coursework. Students may take an internship course which can count for a three-hour elective. All internships must be taken after a student has completed 15 hours of course work. Only a single 3-hour internship or one directed independent study may count toward the degree.

Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
ACCT 6003, Accounting for Planning and Control	3
ECON 6313, Managerial Economics	3
FIN 6723, Corporate Financial Management	3
IBS 6593, Global Strategic Initiatives	3
MGMT 6403, Seminar in Organizational Behavior	3
MGMT 6423, Strategic Management	3
MIS 6413, Management Information Systems	3
MIS 6543, Business Analytics	3
MKTG 6223, Strategic Marketing	3
Total Required Hours:	27

Major in Business Administration

Six hours of electives may be selected in business or economics, as approved by the director of graduate business programs. Under special circumstances, a student may substitute a directed individual study for an elective. All directed individual studies must be taken after a student has completed 24 hours of coursework with a GPA of 3.5 or higher. Directed individual studies should be targeted toward a publication and/or paper/presentation as an outlet for the research. Students are also expected to make a presentation on their research to a group of Graduate Faculty.

Business Administration

Master of Business Administration

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	27
Electives:	Sem. Hrs.
Electives	6
Total Required Hours:	33

Business Administration

Master of Business Administration Concentration in Finance

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	27
Concentration (Finance):	Sem. Hrs.
FIN 6053, Financial Statement Analysis	3
FIN 6733, International Financial Markets	3
FIN 6743, Seminar in Finance	3
Sub-total	9
Total Required Hours:	36

Business Administration

Master of Business Administration Concentration in Healthcare Administration

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	24*
Concentration (Healthcare Administration):	Sem. Hrs.
HCA 6003, Healthcare Policies and Ethics	3
HCA 6013, Current Issues in Healthcare Administration	3
HCA 6243, Services Marketing Strategy Development*	3
HCA 6423, Strategic Management	3
HCA 6703, Healthcare Internship	3
Sub-total	15
Total Required Hours:	39

**HCA 6243 replaces MGMT 6423 of the MBA Core courses*

Business Administration

Master of Business Administration Concentration in International Business

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	27
Concentration (International Business):	Sem. Hrs.
IBS 6143, Seminar in International Human Resource Management	3
IBS 6293, Seminar in International Corporate Social Responsibility OR IBS 6283, Global Social Entrepreneurship	3
IBS 6323, Emerging Markets	3
IBS 6593, Global Strategic Initiatives (business core)	-
Sub-total	9
Total Required Hours:	36

Business Administration

Master of Business Administration Concentration in Management Information Systems

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	27
Concentration (Management Information Systems):	Sem. Hrs.
MIS 6453, Electronic Commerce	3
MIS 6523, Simulation for Predictive Decision-Making	3
6000-level MIS elective	3
Sub-total	9
Total Required Hours:	36

Business Administration

Master of Business Administration Concentration in Marketing

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	27
Concentration (Marketing):	Sem. Hrs.
MKTG 6263, Seminar in Contemporary Marketing Issues	3
Select two of the following: GSCM 6283, Global Supply Chain Management MGMT 6463, Leadership Development MKTG 6213, Healthcare Marketing MKTG 6233, Promotional Strategy MKTG 6243, Services Marketing Strategy MKTG 670V, Marketing Internship	6
Sub-total	9
Total Required Hours:	36

Business Administration

Master of Business Administration Concentration in Supply Chain Management

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Neil Griffin College of Business MBA Core Courses:	Sem. Hrs.
(See Neil Griffin College of Business MBA Core Courses section)	27
Concentration (Supply Chain Management):	Sem. Hrs.
GSCM 6253, Seminar in Logistics Management	3
GSCM 6283, Global Supply Chain Management	3
GSCM 6513, Logistics Operations	3
GSCM 6523, Sourcing and Procurement	3
Sub-total	12
Total Required Hours:	39

Graduate Certificate in Business Analytics

The Graduate Certificate in Business Analytics prepares individuals to apply tools and techniques from data science to provide business insights for a wide range of fields and occupations (e.g., financial accounting and reporting, information economics, consumer behavior, logistics, strategic management). Business analytics includes instruction in descriptive statistics, data visualization, optimization methods, simulation techniques, cloud-based computing, and machine learning.

Business Analytics

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Requirements:	Sem. Hrs.
MIS 6103, Fundamentals of Business Analytics	3
MIS 6203, Business Intelligence Using Case Studies	3
MIS 6303, Big Data Analytics with AWS	3
MIS 6403, Data Driven Strategic Insights	3
Sub-total	12
Total Required Hours:	12

Graduate Certificate in Global Supply Chain Management

The Graduate Certificate in Global Supply Chain Management is designed for individuals who want to develop the skills needed to effectively work in today's complex international supply chain environment. The program provides students with in-depth coverage of the core components of supply chain theory as applied in a dynamic international supply chain environment. Students in the program acquire the knowledge, techniques, and tools necessary to analyze supply chain designs and operations in order to develop effective solutions to problems in domestic and international sourcing, transportation, warehousing, inventory, and other supply chain activities.

Global Supply Chain Management

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Requirements:	Sem. Hrs.
GSCM 6253, Seminar in Logistics Management	3
GSCM 6283, Global Supply Chain Management	3
GSCM 6513, Logistics Operations	3
GSCM 6523, Sourcing and Procurement	3
Sub-total	12
Total Required Hours:	12

Graduate Certificate in Financial Management

The Graduate Certificate in Financial Management is designed for individuals desiring to develop the skills needed to work in financial management in today's complex corporate environment. The program provides students with in-depth coverage of applied financial theory in a dynamic corporate setting. Students in the program acquire the knowledge and tools necessary to maximize shareholder value through the management of capital budgeting, capital structure, payout policy, firm liquidity, and mergers and acquisition activity. Throughout each course, an emphasis is placed on incorporating uncertainty and risk into decision analysis using software and tools used in the finance industry.

Financial Management

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Requirements:	Sem. Hrs.
FIN 6723, Corporate Financial Management	3
Select three of the following: FIN 6743, Seminar in Finance FIN 6053, Financial Statement Analysis FIN 6733, International Financial Markets ECON 6313, Managerial Economics	9
Sub-total	12
Total Required Hours:	12

Graduate Certificate in Marketing

The Graduate Certificate in Marketing is designed for individuals who want to develop the skills needed to effectively work in today's complex marketing environment. The program provides students with in-depth coverage of the core components of marketing theory as applied in a dynamic, data-driven, digital world. Students in the program acquire the techniques and tools necessary to analyze marketing situations and develop effective integrated strategic marketing plans.

Marketing

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Requirements:	Sem. Hrs.
MKTG 6223, Strategic Marketing	3
MKTG 6263, Seminar in Contemporary Marketing Issues	3
Select two of the following: GSCM 6283, Global Supply Chain Management MGMT 6463, Leadership Development MKTG 6213, Healthcare Marketing MKTG 6233, Promotional Strategy MKTG 6243, Services Marketing Strategy MKTG 670V, Marketing Internship	6
Sub-total	12
Total Required Hours:	12

Graduate Certificate in Project Management

The Graduate Certificate in Project Management prepares individuals to apply quantitative and qualitative knowledge, skills, tool, and techniques to manage projects in a wide range of fields and occupations. Project management includes instruction in project planning, risk management, cost and time management, contracts and procurement, accounting, statistics, decision making, and human resources.

Project Management Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Requirements:	Sem. Hrs.
MGMT 6023, Fundamentals of Project Management	3
MGMT 6103, Applied Project Management	3
Select two of the following: MGMT 620V, Certified Associate in Project Management Prep Course MGMT 630V, Project Management Professional Prep Course MGMT 640V, Agile Project Management	3
Sub-total	9
Total Required Hours:	9

College of Education and Behavioral Science

MISSION STATEMENT

The faculty of the College of Education and Behavioral Science teach, conduct research, and provide community and professional service in the areas of pedagogy, behavioral sciences, physical education and leisure studies, and advanced education-related professional studies. Instructional programs are offered within a student-centered organizational context that values diversity, innovation, and professional reflection; these programs are delivered by a faculty committed to the beliefs that (a) every student can learn, and (b) teachers themselves model commitment to learning by visibly demonstrating their own continuing personal and professional growth.

DEGREES OFFERED

The College of Education and Behavioral Science offers work leading to the following graduate degrees with emphasis areas as noted:

- A. Doctor of Education Degree in Educational Leadership
- B. Specialist in Education Degree
 - 1. Educational Leadership
 - 2. Psychology and Counseling
 - 3. Reading
- C. Master of Arts in Teaching
 - 1. Elementary Level
 - 2. Middle Level
 - 3. Special Education K-12
 - 4. Business Technology
 - 5. Art Education K-12
- D. Master of Science in College Student Personnel Services
- E. Master of Science in Early Childhood Services
- F. Master of Science in Exercise Science
- G. Master of Science in Psychological Science
- H. Master of Science in Sport Administration
- I. Master of Science in Education Degree
 - 1. Curriculum and Instruction
 - 2. Early Childhood Education
 - 3. Educational Leadership
 - 4. Educational Theory and Practice
 - 5. Physical Education
 - 6. Reading
 - 7. School Counseling
 - 8. Special Education
 - a. Gifted, Talented, and Creative
 - b. Instructional Specialist Grades K-12
- J. Certificate in Clinical Mental Health Counseling
- K. Certificate in Dyslexia
- L. Certificate in Educational Leadership
 - 1. Building Level Administration
 - 2. Curriculum Director
 - 3. Gifted, Talented & Creative Director
 - 4. Instructional Specialist - Gifted, Talented & Creative
 - 5. Special Education K-12
 - 6. Special Education Director
 - 7. Superintendent
- M. Certificate in Play Therapy

All programs listed above are governed by the general requirements for graduate degrees conferred by Graduate Programs unless specific requirements are designated.

GRADUATE COURSES AND CREDIT

Graduate students enrolled in courses numbered 5000 through 5999 must do special work in addition to that required of undergraduates in the courses numbered 4000 through 4999. Courses numbered 6000 or above are open to fully qualified graduate students only. Except for the foundation courses in Educational Administration (EDFN 7773 and EDFN 7783), enrollment in 7000 level courses is restricted to those students who have been officially admitted to pursue the Specialist in Education degree and will not count toward the master's degree. Exceptions may be made for those holding an appropriate master's degree in a relevant field as accepted by the Department of Educational Leadership, Curriculum and Special Education. Enrollment in 7000-level courses with COUN and PSY prefixes requires admission to the Ed.S in Psychology and Counseling, unconditional admission to another university's accredited post-master degree program with a major in psychology or counseling, or (with permission) admission to the Ed.S in Educational Leadership, or the Ed.D in Educational Leadership. Enrollment in 8000 level courses is restricted to those who have been admitted to pursue doctoral degrees.

PROFESSIONAL EDUCATION FOR SECONDARY TEACHING FIELDS

The College of Education and Behavioral Science also offers a core of professional education courses for Master's degree students majoring in secondary teaching fields. The core of courses, from which students must take nine hours of professional education, consists of the following:

Professional Education Core Courses:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6063, Curriculum Management ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELFN 6763, Philosophies of Education (<i>if not taken above</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken above</i>)	3
Sub-total	9

Specific and academic requirements for majors under secondary teaching programs are listed under the various Colleges and Departments in the Graduate Bulletin.

Program of Study for the Doctor of Education in Educational Leadership Degree

ADMISSION REQUIREMENTS

Applicants for admission to the Doctor of Education degree program must be in good standing in the graduate school of an accredited institution.

Admission to Graduate Programs does not imply admission to the Doctor of Education degree. Students desiring to pursue graduate work for which they have not completed the prerequisites will be required to make up deficiencies. Specific program requirements and details are outlined under the Center for Excellence in Education (CEE) section of this bulletin and on the following pages.

Applicants to the Doctor of Education Degree program must hold an earned master's degree from an accredited institution and provide evidence of having sustained a superior level of scholarship during master's and post-master's level graduate work. Applicants must submit the following to Graduate Admissions:

1. A completed application for admission. Applicants are encouraged to submit the application no later than March 1 for the fall semester. Application forms are available from Graduate Admissions or from the Center for Excellence in Education.
2. A \$50 nonrefundable application fee. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate Admissions will hold all application materials and notify the applicants that no action will be taken until payment is received. International students may utilize a check or an International Postal Money Order to remit payment in U.S. currency.
3. One copy of official transcripts of all previous undergraduate and graduate coursework attempted to be sent directly from the institution(s) previously attended. (Graduate Admissions will compute the graduate GPA by counting all graduate courses completed, including any repeated courses.)
4. Two letters of recommendation from professionals who can speak to the student's ability to matriculate into this doctoral program and complete a dissertation. These letters will be reviewed by the doctoral faculty. An interview may be required. Recommendation by the doctoral faculty is required for admission to the doctoral program.
5. A two page letter of interest describing how the student is a good fit for the degree program.
6. Submit one of the following writing samples:
 - A two-page personal philosophy of leadership, citing three sources of reference; OR
 - A research paper demonstrating the student's ability to write at the graduate level

NOTE: The paper must follow the latest edition of APA style guide.
7. Resume of Curriculum Vitae

CENTER FOR EXCELLENCE IN EDUCATION

The Center for Excellence in Education is a teaching and research center within the College of Education and Behavioral Science. The primary mission of the center is to coordinate the efforts of a diverse faculty in delivery of the doctoral program in educational leadership and to facilitate basic research on the improvement of educational institutions and enhancement of educational settings. The director of the Center for Excellence in Education serves as the director of the Doctor of Education degree program. Inquiries regarding this program should be addressed to the director.

PURPOSE OF THE DEGREE

The Doctor of Education degree in Educational Leadership provides the highest professional degree available in the field of education to students who aspire to administrative careers in either

elementary, secondary, or collegiate levels. Although the degree requirements include a prescribed curriculum of required and elective courses, the doctoral degree is not awarded only on the basis of coursework completion. Following successful completion of the comprehensive examinations, doctoral students conduct a major research project resulting in the presentation and defense of the doctoral dissertation. This phase of the doctoral degree provides students with an opportunity to develop and demonstrate possession of skill in intellectual problem solving.

GENERAL REQUIREMENTS FOR THE DEGREE

Candidates must earn a minimum of 90 hours of graduate credit beyond the bachelor's degree. This quantitative requirement is a minimum, as the quantity of coursework to be completed by each candidate is arranged individually by the advisory committee, subject to the approval of the Registrar, and may be modified both as to quantity and as to type during the progress of the student's coursework.

ADVISORY COMMITTEES

Advisory committees will consist of no fewer than four members who possess expertise in the student's major areas of concentration and should be selected by the student in consultation with the director of graduate studies in the Center for Excellence in Education. These names will be forwarded for official appointment. No committee is considered constituted until final written approval.

Membership of advisory committees may be changed if either the student or a member of their committee feels that such a change is appropriate, and the requested change is approved by the Director of the Center for Excellence in Education. Such a change will only be approved in clearly unusual circumstances. If approval is given, the student will be notified in writing by Graduate Admissions.

DEGREE PLAN

As the successful completion of 12 semester hours approaches, students should file a degree plan listing all courses completed and to be completed. This plan must be approved by the advisory committee and then submitted to the dean for approval. The dean will notify the applicant after the degree plan has been approved. Students will be permitted to register for more than a cumulative total of 12 semester hours only when an approved degree plan is on file.

TRANSFER CREDIT

The Ed.D. Program consists of a minimum of 90 credits beyond the bachelor's degree, for those possessing a master's degree. Although all appropriate graduate credits from master's and beyond will be transferred to the Ed.D., all students must complete the doctoral block and dissertation which total 51 credits. Students enrolled in the Ed.D. program who receive four or more credits with a grade of "C" or lower, or a grade of "F" in the Doctoral Knowledge Core will be dismissed from the program. Students will be held responsible for the content of each course placed on the program of study through written examination.

DOCTORAL CORE CONTENT EXAMINATION STRUCTURE

The Doctoral Core Content Examination will be completed in the final semester of Doctoral Leadership Core. The exam will be a comprehensive exam of the eight courses included within the Doctoral Leadership Core and will be administered during Semester 4 of the doctoral program. If any portion of the exam is failed, a program faculty committee has the option to require the student to repeat coursework that relates to the portion of the exam that did not meet passing requirements. A student may have a second attempt to repeat any failed portion of the Doctoral Core Content Examination. A second failed attempt on any portion of the examination will result in the student's dismissal from the doctoral program.

ADMISSION TO CANDIDACY

Students may apply for admission to candidacy upon satisfactory completion of the comprehensive examination. Students may not apply for candidacy while on probation or with a GPA of less than 3.00.

CONTINUOUS ENROLLMENT

Students must maintain continuous enrollment with their cohort through all ten (10) semesters of the program.

TIME TO DEGREE

All requirements for the doctoral degree must be completed within ten consecutive semesters from the program's beginning. The first four semesters of the program are dedicated to the Doctoral Leadership Core. The remaining six semesters are dedicated to the Doctoral Research and Dissertation Core. The entire doctoral program must be completed in 3.5 years. Time limits of progression to degree are strictly monitored. Students exceeding the time limit may petition the doctoral faculty for an extension. Extensions will be granted only when serious extenuating circumstances have occurred in the student's life that limits their ability to complete the program within the prescribed time limit.

APPROVAL OF DISSERTATION RESEARCH BY THE IRB

Under federal regulation, all institutions receiving funds from any of 16 federal agencies, including USDA, NASA, NSF, EPA, Department of Education, and NIH, are required to establish institutional review boards to monitor all funded research involving humans. Human research is defined as any systematic activity involving the collection and/or analysis of data on human subjects for the purpose of advancing generalizable knowledge, unless this activity is specifically exempted by current federal regulations. It is the policy of this university to apply the regulations to all research and research related activities which involve humans, funded or not. Dissertation research involving human subjects is included.

Copies of the Arkansas State University Institutional Review Board Information Packet are available in the Office of Research and Technology Transfer.

SEMINAR FOR THE DEFENSE OF THE DISSERTATION PROPOSAL

The dissertation proposal should be distributed to all members of the advisory committee at least one week before the date set for the defense seminar. Enough copies should be made for all members of the doctoral committee and for visitors to the defense seminar. The defense seminar will be open to faculty and to master's and doctoral students. After candidates have successfully defended the proposed problem, it is assumed that they will develop, with the supervision of the advisory committee, this proposed problem into a completed dissertation. The candidates will be notified in writing of their committee's approval.

DISSERTATION DEFENSE

Upon completion of the dissertation, an oral presentation of the dissertation research and results followed by an examination which deals with the dissertation and any other aspect of candidates' programs which the committee designates will be held.

Arrangements for this examination will be made by the CEE, but announced by the Registrar. This oral examination will be open to the public.

FINAL FORM

The completed dissertation must follow the style and format requirements of Graduate Programs as contained in the Guide to Thesis and Dissertations: Preparation and Electronic Submission. It is the responsibility of candidates to assure that the completed dissertation follows this designated form. Before submission, the completed dissertation must be approved by the entire advisory committee and the CEE Director, as listed in the Guide. At least three copies of the completed dissertation will be

submitted by candidates. The bound copies will be held in the A-State Library. The Center endorses the use of APA as the approved style for formatting the dissertation. Any deviation from APA should be approved by the advisor.

THE ABSTRACT

Candidates will be responsible for the preparation of an abstract of the dissertation which will be submitted at the same time as the completed dissertation or project. The abstract must not exceed 300 words.

DEADLINE FOR SUBMISSION

The completed dissertation and abstract, signed by all members of the advisory committee, must be submitted to ProQuest by the deadline set for accepting dissertations. The date for each semester and summer term is given in the Academic Calendar.

CHECKLIST FOR THE LAST SEMESTER BEFORE GRADUATION

In the last semester before graduation, candidates must:

- register for the graduation fee.
- file an Intent to Graduate Form with the relevant deadline.
- complete the final oral examination on the dissertation.
- submit the dissertation online by the relevant deadline.

CERTIFICATE

Each student will complete the defined program of study as articulated in the doctoral student handbook.

Educational Leadership

Doctor of Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELAD 8043, Adv. Organizational Theory and Inquiry	3
ELAD 8203, Politics of Education	3
ELAD 8253, Education Policy and the Law	3
ELAD 8313, Doc Sem: Educational Leadership Practices I	3
ELAD 8333, Organizational Development in Education	3
ELAD 8343, Comparative Education	3
ELAD 8501, Dissertation I: Prospectus	1
ELAD 8511, Dissertation II: Chapter One	1
ELAD 8521, Dissertation III: Chapter Two	1
ELAD 8531, Dissertation IV: Chapter Two Approval	1
ELAD 8532, Dissertation V: Chapter Three	2
ELAD 8613, Dissertation VI: Chapter Four Data Collection	3
ELAD 8623, Dissertation VII, Chapter Four Data Analysis	3
ELAD 8633, Dissertation VIII: Chapter Five	3
ELCI 8213, Doc Sem: Curriculum and Instruction	3
ELFN 7773, Advanced Education Research	3
ELFN 7783, Advanced Education Statistics	3
ELFN 8763, Doc Sem: Socio Cultural Issues of Education	3
ELFN 8773, Doc Sem: Educational Research and Evaluation	3
ELFN 8783, Qualitative Research and Evaluation	3
Sub-total	51
Master's Degree (any field)	Sem. Hrs.
Sub-total	30
Doctoral Subcore:	Sem. Hrs.
Required if students possess only a Master's degree	
ELAD 7033 Contemporary Issues ELAD 7073 Schooling in a Pluralistic Society ELCI 7523 Curriculum Theory and Practice	9
Total Required Hours:	90

Program of Study for the Specialist in Education Degree in Educational Leadership

PURPOSE OF THE DEGREE

The Specialist in Education degree (Ed.S.) with a major in Educational Leadership offers educators a program designed to improve their general educational and specific professional competencies as leaders in the public school systems within one of the following areas. The Specialist Degree program is designed to provide study beyond the Master's degree and is based on recommendations from professional organizations and accrediting associations. Candidates complete performance-based activities in P-12 school sites and related settings.

ASSESSMENT

All candidates for the Ed.S. degree in Educational Leadership seeking district administrator licensure must have a standard building-level administrator license or a standard program administrator and must pass the appropriate examination(s) required by the state(s) in which licensure is sought. A copy of the scores should be sent to Arkansas State University.

- Students who adhere to the schedule should be able to complete the program in 24 months. If a candidate finds it necessary to deviate from the schedule, he/she will be able to re-enter the sequence at any time. A student has six years to complete the degree.
- A-State will be using Blackboard as the web delivery platform. This platform allows synchronous and asynchronous interactions, streaming video, and electronic discussion boards. Students will also interact via e-mail, telephone, and fax.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; any processor of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.

ADMISSION TO THE SPECIALIST DEGREE PROGRAMS

Applicants to the Specialist in Education degree program in Educational Leadership must hold an earned master's degree from an accredited institution. Applicants must submit the following to Graduate Admissions:

1. A completed application for admission. Applicants are encouraged to submit the application before May 1 to be eligible for the following summer; before August 1 to be eligible to enter the following fall semester; and before December 1 to be eligible to enter the following spring semester.
2. A \$30 nonrefundable application fee. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate Admissions will hold all application materials and notify the applicants that no action will be taken until payment is received.
3. One copy of official transcripts of all previous undergraduate and graduate coursework attempted to be sent directly from the institution(s) previously attended.
4. Candidates will be required to submit a provided self-disposition document and verification for teacher effectiveness and leadership abilities.
5. Applicants who qualify for an interview appear before the interview committee, which then decides whether the applicant meets program requirements and expectations. If an applicant is approved for admission to the program, the committee sets any conditions of admission.
6. Signed site mentor form that meets the qualifications set by the degree program.

ADMISSION REQUIREMENTS - CURRICULUM DIRECTOR TRACK

To be considered for the Specialist Degree-Curriculum Director Track, each candidate must have, in addition to the admission requirements of Graduate Admissions, the following:

1. At least a 3.25 GPA in a master's degree from an accredited institution and program.
2. Two years of experience as a certified teacher in an educational institution.
3. A current state-issued teaching license.
4. A written commitment from a practicing building-level administrator who will serve as a mentor during this program.
5. No felony record.

ADMISSION REQUIREMENTS - GIFTED, TALENTED AND CREATIVE DIRECTOR TRACK

To be considered for the Specialist Degree-Gifted, Talented and Creative Director Track, each candidate must have, in addition to the admission requirements of Graduate Admissions, the following:

1. At least a 3.25 GPA in a master's degree from an accredited institution and program.
2. One year of experience as a certified gifted, talented and creative teacher in an educational institution.
3. A current state-issued standard teaching license.
4. A written commitment from a practicing GTC director or district level administrator who will serve as a mentor during this program.
5. No felony record.

ADMISSION REQUIREMENTS - PRINCIPALSHIP TRACK

To be considered for the Specialist Degree-Principalship Track, each candidate must have, in addition to the admission requirements of Graduate Admissions, the following:

1. At least a 3.25 GPA in a master's degree from an accredited institution and program.
2. One year of experience as a certified teacher in an educational institution.
3. A current state-issued standard teaching license.
4. A written commitment from a practicing building-level administrator who will serve as a mentor during this program.
5. No felony record.

ADMISSION REQUIREMENTS - SPECIAL EDUCATION DIRECTOR TRACK

To be considered for the Specialist Degree-Special Education Director Track, each candidate must have, in addition to the admission requirements of Graduate Admissions, the following:

1. At least a 3.25 GPA in a master's degree from an accredited institution and program.
2. One year of experience as a certified special education teacher in an educational institution.
3. A current state-issued standard teaching license.
4. A written commitment from a practicing special education director or central office administrator who will serve as a mentor during this program.
5. No felony record.

ADMISSION REQUIREMENTS - SUPERINTENDENCY TRACK

To be considered for the Specialist degree program, each candidate must have, in addition to the admission requirements of Graduate Admissions, the following:

1. At least a 3.25 GPA in a master's degree from an accredited institution and program.
2. Three years of experience as a certified teacher in an educational institution.
3. A current state-issued teaching license.
4. A written commitment from a practicing central office administrator who will serve as a mentor during this program.
5. No felony record.

Educational Leadership

Specialist in Education Curriculum Director Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Courses taken to satisfy the Master's degree requirements may not be taken again to satisfy the Specialist degree requirements.	Sem. Hrs.
ELAD 6033, Administration and Supervision of Special Education	3
ELAD 7003, School and Community Relations	3
ELAD 7053, Planning and Resource Allocation	3
ELAD 7203, Ethical Leadership	3
ELAD 7173, School Law	3
ELCI 6323, Elementary Curriculum	3
ELCI 6423, Middle School Curriculum	3
ELCI 6493, Curriculum Internship <i>The internship must be completed during the semester in which a candidate completes the degree.</i>	3
ELCI 6523, Secondary School Curriculum	3
ELCI 7063, Curriculum Management	3
ELCI 7083, Supervision and Evaluation of Teaching	3
ELCI 7533, Theories of Instruction	3
Sub-total	36
Total Required Hours:	36

Educational Leadership

Specialist in Education Gifted, Talented and Creative Director Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Courses taken to satisfy the Master's degree requirements may not be taken again to satisfy the Specialist degree requirements.	Sem. Hrs.
ELAD 6033, Administration and Supervision of Special Education	3
ELAD 7003, School and Community Relations	3
ELAD 7053, Planning and Resource Allocation	3
ELAD 7173, School Law	3
ELAD 7203, Ethical Leadership	3
ELCI 7063, Curriculum Management	3
ELCI 7083, Supervision and Evaluation of Teaching	3
ELCI 6493, Curriculum Internship <i>The internship must be completed during the semester in which a candidate completes the degree.</i>	3
Choose two of the following in an area of specialization: ELCI 6323, Elementary Curriculum ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum	6
Sub-total	30
Total Required Hours:	30

Educational Leadership

Specialist in Education Principalship Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Courses taken to satisfy the Master's degree requirements may not be taken again to satisfy the Specialist degree requirements.	Sem. Hrs.
ELAD 6033, Administration and Supervision of Special Education	3
ELAD 6593, Supervised Internship <i>The internship must be completed during the semester in which a candidate completes the degree.</i>	3
ELAD 7003, School and Community Relations	3
ELAD 7053, Planning and Resource Allocation	3
ELAD 7173, School Law	3
ELAD 7573, Leading School Improvement	3
ELAD 7203, Ethical Leadership	3
ELCI 7063, Curriculum Management	3
ELCI 7083, Supervision and Evaluation of Teaching	3
Select one of the following: ELCI 6323, Elementary Curriculum ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum	3
Sub-total	30
Total Required Hours:	30

Educational Leadership

Specialist in Education Special Education Director Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Courses taken to satisfy the Master's degree requirements may not be taken again to satisfy the Specialist degree requirements.	Sem. Hrs.
ELAD 6033, Administration and Supervision of Special Education	3
ELAD 6423, Ethical and Legal Issues in Special Education	3
ELAD 7003, School and Community Relations	3
ELAD 7173, School Law	3
ELAD 7203, Ethical Leadership	3
ELCI 6493, Curriculum Internship <i>The internship must be completed during the semester in which a candidate completes the degree.</i>	3
ELCI 7063, Curriculum Management	3
ELCI 7083, Supervision and Evaluation of Teaching	3
ELCI 7533, Theories of Instruction	3
Select one of the following: ELCI 6323, Elementary Curriculum ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum	3
Sub-total	30
Total Required Hours:	30

Educational Leadership

Specialist in Education Superintendency Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELAD 7013, School Personnel Administration	3
ELAD 7023, School Business Management	3
ELAD 7033, Contemporary Issues	3
ELAD 7043, Management of Operational Systems for Learning	3
ELAD 7073, Schooling in a Pluralistic Society	3
ELAD 7103, School District Administration	3
ELAD 7473, Field Study	3
ELAD 7493, Supervised Internship <i>The internship must be completed during the semester in which a candidate completes the degree.</i>	3
ELCI 7523, Curriculum Theory and Practice	3
ELFN 7583, Evaluation of Educational Programs and System	3
Sub-total	30
Total Required Hours:	30

Program of Study for the Specialist in Education Degree in Psychology and Counseling

PURPOSE OF THE DEGREE

The Specialist in Education degree (Ed.S.) with a major in Psychology and Counseling offers a planned program of studies designed to lead to state licensure in counseling and school psychology. A Flexible Options Track is also available. Information about requirements for licensure can be obtained from the Arkansas Board of Examiners in Counseling, the Arkansas Department of Education, and from the Program Coordinators in the Department of Psychology and Counseling. The design of each candidate's program is based on that student's previous academic preparation, professional experiences, and career aspirations.

NOTE: Enrollment in 7000-level courses with **COUN** and **PSY** prefixes requires admission to the Ed.S. in Psychology and Counseling, unconditional admission to another university's accredited post-master degree program with a major in psychology or counseling, or (with permission) admission to the Ed.S. in Educational Leadership, or the Ed.D. in Educational Leadership.

ADMISSION TO THE SPECIALIST DEGREE PROGRAMS

Applicants to the Specialist in Education degree program in Educational Leadership must hold an earned master's degree from an accredited institution. Applicants to the Specialist in Education in Psychology and Counseling must hold either an earned bachelor's or an earned master's degree from an accredited institution. Applicants must submit the following to Graduate Admissions:

1. A completed application for admission. Applicants are encouraged to submit the application before May 1 to be eligible for the following summer; before August 1 (or February 15 for school psychology) to be eligible to enter the following fall semester; and before December 1 to be eligible to enter the following spring semester.
2. A \$30 nonrefundable application fee. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate Admissions will hold all application materials and notify the applicants that no action will be taken until payment is received.
3. One copy of official transcripts of all previous undergraduate and graduate coursework attempted to be sent directly from the institution(s) previously attended.
4. Official report of a score, obtained within the last five years, on the Graduate Record Examination (Required for Ed.S. in School Psychology track only).
5. Please see program sections under the College of Education and Behavioral Science portion of this Bulletin for specific requirements or online at <http://www.astate.edu/education>.

PROGRAM ADMISSION PROCEDURES

1. Contact Graduate Admissions for an application materials packet.
2. Submit to Graduate Admissions all application materials, including:
 - a. Completed Graduate Admissions application form with specified application fee, proof of immunization for mumps, measles and rubella, selective service status form, and separate official transcripts of all undergraduate and graduate work from all colleges and universities attended.
 - b. Official report of scores, obtained within the last five (5) years, on the Graduate Record Examination (GRE) for Verbal, Quantitative, and Analytical Writing sections. (Required for Ed.S. School Psychology track only).
 - c. A typed statement of personal, educational, and career goals and aspirations; personal perception of influences on the applicant's choice of training in the areas of psychology and/or counseling; and personal view of the role and value

- of the chosen area of training.
- d. Four letters of appraisal and recommendation from persons qualified to speak with authority about the applicant's professional abilities and personal characteristics. At least two of these letters must come from faculty in the applicant's most recent academic program of study. When the applicant has not completed that program of study, a statement of status in that program also is required. Note: Applicants to the school psychology track must have their references complete the A-State School Psychology Application Evaluation form rather than letters. This form is available as a download on the A-State Department of Psychology and Counseling School Psychology webpage.
 - e. Applicants to the school psychology track must provide verification of clearance of the Arkansas Child Maltreatment Central Registry Check.
3. Graduate Admissions reviews the application file and, if applicant qualifies for admission to Graduate Programs, forwards the file (including all materials listed above) to the appropriate Program Coordinator in the Department of Psychology and Counseling.
 4. The appropriate Ed.S. Program Committee reviews the application file. This committee evaluates all materials submitted by the applicant and decides whether the applicant has the essential qualities to warrant an interview with the Committee.
 5. Applicants who qualify for an interview appear before the Committee, which then decides whether the applicant meets program requirements and expectations. If an applicant is approved for admission to the program, the committee sets any conditions of admission and appoints an academic adviser.

NOTE: The school psychology track only accepts students in the fall semester of each semester of each academic year. Therefore, individuals who are applying for acceptance into the school psychology track of the program must submit their entire application to Graduate Admissions by February 15.

The clinical mental health counseling track admits students by cohorts during the fall and spring semesters. Each student is required to commit to a full-time or part-time program of study determined in consultation with an assigned advisor at the time of enrollment. Deadlines for application materials are April 15th for the fall semester and October 1st for the spring semester.

PROGRAM ADMISSION REQUIREMENTS

To be considered for admission to the Ed.S. Program in Psychology and Counseling, applicants must hold an earned bachelor's or master's degree from an accredited institution and present evidence of qualities consistent with those required for effective practice in the chosen area of study. The written statement prepared by the applicant, combined with letters from references and the personal interview, will be used as the basis for committee members' judgment of the applicant's personal and interpersonal qualities. All persons admitted to the program are required to meet the same standard in regard to these qualities. Applicants also must present evidence of potential ability to perform academic work at the advanced graduate level. Standardized test proficiency and past grade performance provide the primary data for judging academic ability; other indicators, such as quality of writing in the applicant's prepared statement and faculty references, also will be considered. Based on the combination of test proficiency and past academic performance, an applicant may qualify for either unconditional or conditional admission status.

SCHOOL PSYCHOLOGY

Unconditional Admission Status: Academic proficiency for unconditional admission may be established through satisfaction of either of the following criteria:

- a. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours of undergraduate work) and a minimum score of 290 (900 on prior scale) on the combined verbal and quantitative reasoning sections of the GRE, and 3.5 on Analytical Writing.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

- b. Unconditional admission to Graduate Programs, a minimum score of 290 (900 on prior scale) on the combined verbal and quantitative reasoning sections of the GRE and 3.5 on Analytical Writing, and a minimum cumulative graduate grade point average of 3.25 on 12 or more hours with no grade less than a "B."

Conditional Admission Status: Academic proficiency for conditional admission may be established through satisfaction of either of the following criteria:

- a. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours of undergraduate work) and a minimum score of 285 (800 on prior scale) on the combined verbal and quantitative reasoning sections of the GRE and 3.5 on Analytical Writing.
- b. Unconditional admission to Graduate Programs, a minimum score of 285 (800 on prior scale) on the combined verbal and quantitative reasoning sections of the GRE, and a minimum cumulative graduate grade point average of 3.00 on 12 or more semester hours with no more than one course with a grade of "C" and no grade less than a "C."

CLINICAL MENTAL HEALTH COUNSELING

Unconditional Admission Status. Academic proficiency for unconditional admission may be established through satisfaction of either of the following criteria:

- a. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours of undergraduate work).
- b. Unconditional admission to Graduate Programs, and a minimum cumulative graduate grade point average of 3.25 on 12 or more hours with no grade less than a "B."

Conditional Admission Status. Academic proficiency for conditional admission may be established through satisfaction of either of the following criteria:

- a. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours of undergraduate work).
- b. Unconditional admission to Graduate Programs and a minimum cumulative graduate grade point average of 3.00 on 12 or more semester hours with no more than one course with a grade of "C" and no grade less than a "C."

ELIGIBILITY TO CONTINUE IN THE ED.S. PROGRAM

Students admitted in Conditional status must earn a cumulative grade point average of at least 3.25 on the next 12 hours of course requirements and have no grade less than "B" in any course in order to advance to Unconditional status. Students who fail to remove Conditional status in this manner will be dropped from the Ed.S. Program in Psychology and Counseling. Retention checkpoints for students admitted to the Ed.S. Program in Psychology and Counseling include the following:

1. **Annual Review:** In addition to the academic standards for continuing enrollment, all students admitted to the Ed.S. Program will be subject to annual review by the appropriate Committee. This annual review will be conducted at some time during the spring semester. At this review, the Committee will assess current evidence of each student's personal and interpersonal qualities deemed essential for the chosen area of study. The Committee also will assess overall quality of academic performance, and any student having earned a grade of "C" in any course will come under close scrutiny. Outcomes at each review may be approval for unrestricted continuation in the program, approval for continuation in the program with specified contingencies, suspension from the program with specified contingencies, suspension from the program with specified contingencies for re-admission, or removal from the program.
2. **Admission to Candidacy:** Students who have attained Unconditional Status and completed 12 to 42 hours of required courses in the Ed.S. Program in Psychology

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

and Counseling must file for candidacy status in compliance with Graduate Programs policy.

3. **Approval to Register for Practicum and Internship Courses:** Eligibility to enroll in supervised clinical training (i.e., COUN 6203, 6213, 748V, and PSY 782V) is subject to approval of the student's adviser and/or the program committee. To obtain this approval, a student must have successfully completed all prerequisites and be deemed to have shown evidence of readiness for the level of practice required in the particular course.
4. **Eligibility for Comprehensive Examination:** Students who have earned an overall graduate grade point average of 3.00, have earned a cumulative grade point average of at least 3.00 for all courses completed in the Ed.S. Program in Psychology and Counseling, and are enrolled for their final period of study will be eligible to sit for the comprehensive examination.
5. **Eligibility for Graduation:** Students who have earned an overall graduate grade point average of 3.00, have completed all courses required for the Ed.S. Program in Psychology and Counseling and earned a cumulative grade point average of at least 3.00 for these courses, and have passed the comprehensive examination will be eligible for conferral of degree.

ACADEMIC CREDIT

Graduate Programs policy prohibits credit toward degree requirements for any courses completed more than six years prior to completion of the degree program. In addition, both degree-seeking and non-degree seeking students enrolling in COUN and PSY courses are expected to provide evidence that prerequisite knowledge is sufficiently current to support successful academic and/or clinical performance. Thus, students with dated courses may be asked to repeat such courses whether or not they have been used to fulfill requirements of another degree.

THESIS/NON-THESIS OPTION

Within the minimum number of hours required for the degree, candidates may elect to complete a six-hour thesis in either psychology or counseling. The topic of the thesis must be acceptable to the student's thesis committee. Candidates electing the thesis option must comply with the standards specified in the Guide to Thesis and Dissertations: Preparation and Electronic Submission, available on the Graduate Programs website, <http://www.astate.edu/college/graduate-school/thesis/>. Candidates electing the non-thesis option will complete six hours of coursework in lieu of the six-hour thesis to acquire the minimum number of hours required for the degree.

SUPERVISED INTERNSHIP

Supervised internship requirements will be determined and pre-approved by the student's graduate adviser and the appropriate committee. These requirements will be based on the candidate's previous work experience, and in accord with the following guidelines:

1. Candidates with one to three years of professional experience acceptable to the degree major may be required to complete a three-semester hour supervised internship.
2. Candidates with no professional experience acceptable to the degree major will be required to complete three to six semester hours of internship.
3. The supervised internship will consist of the equivalent of full-time responsibility to the assigned duties for a period of nine weeks for each three semester hours of credit earned. The intern will be responsible for maintaining a log of time and activities to be submitted to the faculty supervisor at the conclusion of the internship assignment.
4. Candidates enrolled in a program of study that leads to professional licensure in psychology or counseling will complete supervised internship experiences that are consistent with state and/or national requirements/standards.

ADMISSION TO CANDIDACY

The student may apply for admission to candidacy when the following requirements have been met:

1. Removal of assessed deficiencies as determined by the Committee on Admissions.
2. Satisfactory completion of 12-18 hours of graduate coursework in the degree program.

The application for admission to candidacy must be filed no later than the completion of 18 semester hours of graduate degree credit in the program. Failure to gain admission to candidacy at the time that no more than 18 hours have been accumulated may result in additional enrollment and will cause a delay in graduation. Students accumulating 18 hours of graduate degree credit with less than a 3.00 grade point average will be dropped from Graduate Programs.

COMPREHENSIVE EXAMINATIONS

A written comprehensive examination must be completed. Because of its all-inclusive nature, candidates will take the examination during the final period of enrollment. An oral examination may be required at the option of the appropriate committee. Committee evaluation of the examination (written, written and oral) will result in a recommendation for internship or graduation, a requirement of additional coursework or assignment(s) prior to repeating the comprehensive examination, or removal from the program as specified by Graduate Programs.

PROGRAM OF STUDY

Each student's program will be planned with the assigned adviser during the initial enrollment period to ensure that the program complies with professional credentialing requirements, where such exist, and is relevant to the student's objectives. A minimum of 18 hours of 7000 level courses are required. A maximum of three hours of 5000 level courses beyond the master's degree and a maximum of 12 hours of 5000 level courses beyond the baccalaureate degree may be applied toward the Specialist in Education degree.

Candidates for the Ed.S. degree with a major in Psychology and Counseling who wish to seek a license from the Arkansas Department of Education must take and achieve a passing score on the Praxis School Psychologist examination. The candidate must arrange for a score to be sent to Arkansas State University and must provide a copy of the individual score report to the school psychology coordinator.

FLEXIBLE OPTIONS TRACK

The Flexible Options Track is designed to provide students with a planned but flexible advanced program of study in psychology or counseling. Students may design their program to meet the requirements for becoming instructors of psychology in two-year post-secondary institutions or to simply acquire advanced knowledge and skills in psychology. Upon graduation from the degree program some of these students may elect to pursue doctoral study in psychology or a related field. This is a non-licensure/certification program track.

Additional information about the flexible options track can be obtained from the school psychology coordinator and at the following Department of Psychology and Counseling website: <http://www.astate.edu/college/education/departments/psychology-and-counseling/>.

Minimum hours required for this degree: An appropriate master's degree plus 33 semester hours or a baccalaureate degree plus 67 semester hours.

CLINICAL MENTAL HEALTH COUNSELING TRACK

The Clinical Health Counseling Track of the Specialist degree program requires a minimum of 30 hours beyond the master's degree or 60 hours beyond the baccalaureate degree. The program of study is designed to prepare students for positions as professional counselors in community, state, federal,

and private social service agencies and for EAP positions in business and industry. Graduates provide services such as child, youth, adult, couple, family, employment, health, multicultural, gerontological, and/or wellness counseling. The program provides the opportunity for students to develop skills and competencies in working with a diversity of issues, including but not limited to, depression, anxiety, addiction and substance abuse, suicidal impulses, stress management, grief, and issues relating to family, which can include parenting, marital difficulties, or other relationship problems. The program structure is based on the professional standards established by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and is consistent with standards and requirements set forth by the Arkansas Board of Examiners in Counseling.

The curriculum emphasizes the acquisition of specialized knowledge and skills relating to theories of human behavior, human development, interpersonal relationships, and foundational therapeutic interventions. Ethical and competent counseling practices are stressed. Students will develop a professional identity as a competent ethical mental health counselor.

Students who complete the Clinical Health Counseling Track of the program and are awarded the Ed.S. Degree in Psychology and Counseling are eligible to take the National Counselor Examination (NCE) offered by the National Board for Certified Counselors (NBCC) in order to qualify for both National Certified Counselor (NCC) and Arkansas Licensed Associate Counselor (LAC) status. The Clinical Health Counseling Track faculty are committed to helping students/graduates become certified and/or licensed as professional counselors.

Additional information about the Clinical Health Counseling Track can be obtained from the Clinical Health Counseling Handbook, program faculty, and at the following Department of Psychology and Counseling website: <http://www.astate.edu/college/education/departments/psychology-and-counseling/>.

SCHOOL PSYCHOLOGY TRACK

The School Psychology Track of the Specialist degree program requires a minimum of 33 hours beyond the master's degree or 67 hours beyond the baccalaureate degree. The program of study is specifically designed to educate future school psychologists so that graduates have expert skills in data-based decision making, assessment, intervention (including prevention), consultation, research, and program planning, and evaluation to work with students, teachers, administrators, parents, and other professionals. Preparation is focused on comprehensive service delivery to meet the complex needs of the diverse clientele that is served. The structure of the program is based on the professional standards established by the National Association of School Psychologists (NASP). Program requirements are also consistent with licensure standards set by the Arkansas Department of Education (ADE). The program of study has been approved by the National Association of School Psychologists (NASP) and ADE. The curriculum is based on the Practitioner/Professional Practice model and the Pragmatic model which emphasize professional or clinical practice of the discipline and alignment with state department of education and NASP Standards for Graduate Preparation of School Psychologists. Social cognitive theory, evidence-based practices, and professional accountability are stressed. Consistent with NASP data-based decision making, assessment, intervention (including prevention and crisis intervention), consultation, research, program planning and evaluation, and professional development are emphasized in addition to applicable laws, ethical principles, and codes of conduct. Graduates are well equipped to draw upon strong foundations in psychology and education when providing direct and indirect services to meet the academic, social, and emotional needs of all students.

Students who complete the School Psychology Track of the program are required to complete and earn a passing score on the Praxis School Psychologist examination in order to be awarded the Ed.S. Degree in Psychology and Counseling. A passing score on this exam is required for licensure as a School Psychology Specialist (SPS) by the ADE and national certification as Nationally Certified School Psychologists (NCSP) through the NASP.

Additional information about the School Psychology Track can be obtained from the School Psychology Handbook, program faculty, and from the following Department of Psychology and Counseling website, <http://www.astate.edu/college/education/departments/psychology-and-counseling/>.

Psychology and Counseling

Specialist in Education Clinical Mental Health Counseling Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
COUN 6023, Introduction to Mental Health Counseling	3
COUN 6033, Social and Cultural Foundations of Counseling	3
COUN 6043, Career Development and Services	3
COUN 6053, Ethical, Legal, and Professional Issues in Counseling	3
COUN 6123, Group Counseling	3
COUN 6203, Counseling Prepracticum	3
COUN 6213, Counseling Practicum	3
COUN 6313, Alcohol and Drug Abuse	3
COUN 6432, Crisis, Disaster, and Trauma	2
COUN 6451, Telehealth for Mental Health Practice	1
COUN 7463, Introduction to Couples and Family Counseling	3
COUN 7473, Supervised Internship I	3
COUN 7493, Supervised Internship II	3
PSY 6113, Theories and Techniques in Helping Relationships	3
PSY 6213, Statistics and Research Design in Psychology and Counseling	3
PSY 6543, Psycho-Social Aspects of Development	3
PSY 6573, Psychological Testing	3
PSY 7223, Research Design and Program Evaluation in Psychology and Counseling	3
PSY 7533, Psychopathology	3
PSY 7633, Physiological Psychology and Psychopharmacology	3
Approved Elective	3
Sub-total	60
Total Required Hours:	60

Psychology and Counseling

Specialist in Education School Psychology Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
COUN 6203, Counseling Prepracticum	3
PSY 5313, Applied Analysis of Psychological Research I	3
PSY 6000, Special Topics in School Psychology	0
PSY 6523, Behavior Assessment and Intervention	3
PSY 6573, Psychological Testing	3
PSY 6583, Individual Intelligence Testing	3
PSY 6603, Professional School Psychology	3
PSY 6613, Professional Consultation	3
PSY 6623, Child and Adolescent Psychopathology	3
PSY 6683, Crisis Intervention and Prevention in School and Community Settings	3
PSY 6693, Implementation Science in Education	3
PSY 7223, Research Design and Program Evaluation in Psychology and Counseling	3
PSY 7511, Psychoeducation Assessment Lab	1
PSY 7513, Psychoeducation Assessment	3
PSY 7523, Psychoeducational Interventions	3
PSY 7563, Theories of Learning	3
PSY 7583, Developmental and Differential Psychology	3
PSY 7613, Practicum in School Psychology (6 hours)	6
PSY 7623, School Psychology Practicum in Applied Settings I	3
PSY 7633, Physiological Psychology and Psychopharmacology	3
PSY 7643, School Psychology Practicum in Applied Settings II	3
PSY 782V, Supervised Internship (6 hours)	6
Sub-total	67
Total Required Hours:	67

Program of Study for the Specialist in Education Degree in Reading

PURPOSE OF THE DEGREE

The Specialist in Education (Ed.S.) degree with a major in Reading offers educators an opportunity to expand their knowledge of reading instruction and literacy leadership beyond the Master's level. Candidates for the Ed.S. degree with a major in Reading degree will work with a faculty advisor who teaches graduate level reading courses in the Department of Teacher Education to develop a plan of study which incorporates 30 hours beyond the Master's level.

ADMISSION REQUIREMENTS

Unconditional Admission: Students seeking admission into the Specialist in Education (Ed.S.) degree with a major in Reading program must meet the admission requirements of Graduate Admissions. In addition, applicants must meet the following criteria for unconditional admission:

- Have a valid teaching license (Arkansas or other state)
- Have a Master's Degree in Reading or other field in education
- Have a minimum of a 3.25 graduate GPA
- Provide official transcripts for all previous undergraduate and graduate course work
- Have a written agreement from a practicing teacher in reading/language arts who will function as your mentor during the program.
- Participate in an assessment of professional dispositions.
- Complete a Partnership School Agreement

Reading

Specialist in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	
ELFN 6773, or an equivalent course, must be taken as a prerequisite for RDNG 7613; this does not count toward total hours needed for degree completion.	Sem. Hrs.
RDNG 7393, Literacy Leaders as Community Advocates	3
RDNG 7423, Studies in Critical Literacy	3
RDNG 7613, Survey of Quantitative and Qualitative Literacy Research	3
RDNG 7653, Advanced Studies in Reading Comprehension	3
RDNG 7493, Reading and Writing Capstone	3
Sub-total	15
Literacy Leadership Track:	
Select one of the following tracks:	Sem. Hrs.
Option 1 - Advanced Perspectives <i>This track is designed for Ed.S. candidates who already have a Master's Degree in Reading.</i> RDNG 7283, Writing Pedagogy: Advanced Processes of Writing RDNG 7393, Literacy Leaders as Community Advocates RDNG 7473, Theories of Language Acquisition RDNG 7543, New Literacies RDNG 7643, Social Foundations of Literacy	15
Option 2 - Professional Practice <i>This track is designed for Ed.S. candidates who have a Master's Degree in another educational field.</i> RDNG 6333, Reading Practicum I – Diagnosis and Intervention RDNG 6513, Emergent Literacy (Birth – Primary) RDNG 6533, Literacy for Diverse Learners RDNG 6553, Adolescent Literacy RDNG 6563, Principles of Literacy Cognition	
Total Required Hours:	30

Program of Study for the Master of Arts in Teaching

Art Education, Business Technology, Elementary and Middle Level Initial Licensure

PURPOSE OF THE DEGREE

The purpose of this program is to provide an additional quality pathway to Arkansas teacher licensure for our region and state. Individuals seeking to enter public school teaching with bachelor's degrees are eligible to earn initial licensure through the Master of Arts in Teaching (MAT) degree. The MAT includes Teacher Education core courses along with specialized courses to create a Master's Program for initial licensure in Art Education (Grades K-12), Business Technology (Grades 4-12), Elementary (grades K-6) and Middle Level Education (grades 4-8) with a specialty in one content area.

ADMISSION REQUIREMENTS

Graduate Admissions Criteria:

- Hold a bachelor's degree from a regionally accredited college or university (transcripts for undergraduate and graduate coursework must be submitted from all institutions attended.)
- Pass required admission tests and required subject-specific content examinations (Praxis Content examinations)
- Complete the A-State Graduate Admissions application and qualify for graduate admission.
- The acceptance of previous graduate work including transfer work is at the discretion of the MAT Program Director.

Unconditional Admission: In addition to Graduate Admissions criteria, academic proficiency must be established through satisfaction of the following admissions selection criteria:

- a. Meet test score admission requirements for Admission to the Teacher Education program as identified in the current *Teacher Education Handbook* (Chapter Three) or meet any additional criteria as may be allowed by the Arkansas Department of Education.
- b. Pass the Praxis content exams listed for the MAT track chosen:

ELED: Pass Praxis Mathematics, Reading and Language Arts, Science, and Social Studies Elementary Education Multiple Subjects exams (pass scores 157, 157, 159, 155 respectively)

MLED: Pass at least one Praxis Middle School content exams (Reading Language Arts, Mathematics, Science, and/or Social Studies (pass scores 164, 165, 150, 149 respectively)

Business Tech: Pass Business Education: Content Knowledge (pass score 154)

Art Education: Pass Praxis Art: Content Knowledge (pass score 158)

Students must be admitted into the Arkansas State University Teacher Education Program to continue into the first spring session of classes. Students should consult the Arkansas State University Teacher Education Handbook (Chapter Three) for information about licensure and additional requirements of the Teacher Education program.

The department strongly recommends a Summer start date for the MAT program. A Fall date is possible, but requires a heavy course load the summer prior to internship. Spring admission is advisable

only for special circumstances.

SPECIALIZED REQUIREMENTS AND LICENSURE REQUIREMENTS

Licensure Requirements (subject to change by the Arkansas Department of Education) and including the GPA of 2.70 and the Praxis Core or GRE scores listed above.

- Complete a course at the graduate or undergraduate level focused on student exceptionalities
- Complete a course in Arkansas History
- Complete current Arkansas Department of Education requirements for specialized content area knowledge in the MAT track chosen. The MAT Program will meet all minimal requirements of the Arkansas Department of Education. Arkansas Department of Education requirements are subject to change.

REQUIREMENTS FOR CONTINUED PROGRAM PARTICIPATION

- Submit all scheduled Teacher Education Program Application and Gateway Check forms.
- Complete all Professional education course work.
- Maintain a 3.00 average on professional education course work.
- Make no grade lower than a C in all professional area course work. Candidates may not apply more than two classes with a grade of C toward graduate professional course work.
- Take the Praxis II Principles of Learning and Teaching licensure exam prior to graduation.

Teaching

Master of Arts in Teaching Elementary Level Initial Licensure

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
TE 6043, Effective Assessment	3
TE 6223, Effective Teaching with Diverse Populations	3
TE 6243, Technology as a Tool for Teaching	3
TE 6253, Perspectives on Professionalism in Education	3
TE 6293, Theories and Strategies of Classroom Management	3
Sub-total	15
Reading Instruction Block:	Sem. Hrs.
Students who have completed reading courses approved as part of the Reading Proficiency Pathway prior to admission to the MAT program may substitute up to two undergraduate Reading courses for up to two graduate Reading courses listed as requirements of the MAT program with prior Department Chair Permission. Students must still complete a minimum of thirty hours of graduate coursework in order to graduate.	
RDNG 6013, Theories, Issues, and Methods of Reading	0-3
RDNG 6493, Advanced Reading Methods and Interventions	0-3
Sub-total	0-6
Practicum:	Sem. Hrs.
TE 6299, MAT Internship in Teacher Education <i>Completion of all teacher education core, reading instruction block, and specialty core courses with no more than nine to ten hours remaining required for enrollment.</i>	9
ELED Program Requirements:	Sem. Hrs.
ELED 6023, Curriculum Construction – Elementary	3
ELED 6103, Elementary Literacy	3
ELED 6113, Learning and Developing in the Elementary Years	3
Sub-total	9
Total Required Hours:	33-39

Teaching

Master of Arts in Teaching Middle Level Initial Licensure

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
TE 6043, Effective Assessment	3
TE 6223, Effective Teaching with Diverse Populations	3
TE 6243, Technology as a Tool for Teaching	3
TE 6253, Perspectives on Professionalism in Education	3
TE 6293, Theories and Strategies of Classroom Management	3
Sub-total	15
Reading Instruction Block:	Sem. Hrs.
Students who have completed reading courses approved as part of the Reading Proficiency Pathway prior to admission to the MAT program may substitute up to two undergraduate Reading courses for up to two graduate Reading courses listed as requirements of the MAT program with prior Department Chair Permission. Students must still complete a minimum of thirty hours of graduate coursework in order to graduate.	
RDNG 6013, Theories, Issues, and Methods of Reading	0-3
RDNG 6493, Advanced Reading Methods and Interventions	0-3
Sub-total	0-6
Practicum:	Sem. Hrs.
TE 6299, MAT Internship in Teacher Education <i>Completion of all teacher education core, reading instruction block, and specialty core courses with no more than nine to ten hours remaining required for enrollment.</i>	9
MLED Program Requirements:	Sem. Hrs.
MLED 6403, World of the Young Adolescent	3
MLED 6423, Teaming, Teaching, and Learning in the Middle Grades	3
MLED 6443, Advanced Methods for Teaching in the Middle Grades	3
Sub-total	9
Total Required Hours:	33-39

Teaching

Master of Arts in Teaching Business Technology Initial Licensure

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
TE 6043, Effective Assessment	3
TE 6223, Effective Teaching with Diverse Populations	3
TE 6243, Technology as a Tool for Teaching	3
TE 6253, Perspectives on Professionalism in Education	3
TE 6293, Theories and Strategies of Classroom Management	3
Sub-total	15
Reading Instruction Block:	Sem. Hrs.
Students who have completed reading courses approved as part of the Reading Proficiency Pathway prior to admission to the MAT program may substitute up to two undergraduate Reading courses for up to two graduate Reading courses listed as requirements of the MAT program with prior Department Chair Permission. Students must still complete a minimum of thirty hours of graduate coursework in order to graduate.	
RDNG 6013, Theories, Issues, and Methods of Reading	0-3
Practicum:	Sem. Hrs.
TE 6299, MAT Internship in Teacher Education <i>Completion of all teacher education core, reading instruction block, and specialty core courses with no more than nine to ten hours remaining required for enrollment.</i>	9
Middle Level and Secondary Program Area:	Sem. Hrs.
MLED 6403, World of the Young Adolescent	3
MLED 6423, Teaming, Teaching, and Learning in the Middle Level Education	3
MLED 6643, Advanced Methods for Teaching in the Middle Grades	3
Sub-total	9
Total Required Hours:	33-36

Teaching

Master of Arts in Teaching Art Education Initial Licensure

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
TE 6043, Effective Assessment	3
TE 6223, Effective Teaching with Diverse Populations	3
TE 6243, Technology as a Tool for Teaching	3
TE 6253, Perspectives on Professionalism in Education	3
TE 6293, Theories and Strategies of Classroom Management	3
Sub-total	15
Reading Instruction Block:	Sem. Hrs.
Students who have completed reading courses approved as part of the Reading Proficiency Pathway prior to admission to the MAT program may substitute up to two undergraduate Reading courses for up to two graduate Reading courses listed as requirements of the MAT program with prior Department Chair Permission. Students must still complete a minimum of thirty hours of graduate coursework in order to graduate.	
RDNG 6013, Theories, Issues, and Methods of Reading	0-3
Practicum:	Sem. Hrs.
TE 6299, MAT Internship in Teacher Education <i>Completion of all teacher education core, reading instruction block, and specialty core courses with no more than nine to ten hours remaining required for enrollment.</i>	9
Art Education Program Requirements:	Sem. Hrs.
ARED 6703, Applied Art Infusion: Contemporary Approaches	3
Middle Level and Secondary Program Area:	Sem. Hrs.
MLED 6403, World of the Young Adolescent	3
MLED 6423, Teaming, Teaching, and Learning in the Middle Level Education	3
MLED 6643, Advanced Methods for Teaching in the Middle Grades	3
Sub-total	9
Total Required Hours:	36-39

Program of Study for the Master of Arts in Teaching Special Education K-12 Initial Licensure

PURPOSE OF THE DEGREE

The purpose of the Master of Arts in Teaching (MAT) degree in Special Education (K-12) is to offer an alternative route to teaching for individuals who hold an undergraduate or a graduate degree in non-education programs who have an interest in teaching. Individuals completing the degree are eligible to earn an initial teaching licensure through the MAT-Special Education (K-12) degree. The program prepares teachers to provide diverse student populations with the knowledge, skills, and values considered essential for effective participation in society. It also provides relevant and comprehensive education for those who desire to support the educational, emotional, and physical needs of students with disabilities, from grades K-12, in the public schools. The MAT in special education is guided by program development that addresses the Council for Exceptional Children (CEC) Initial Preparation Standards, Arkansas Teaching Standards, and the Teacher Excellence Support System (TESS). Field experiences incorporated throughout the program connect content, pedagogy, performance-based activities, and differentiation of instruction for individuals with exceptionalities from diverse backgrounds.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Arts in Teaching in Special Education-Instructional Specialist Grades K -12 must meet the admission requirements of Graduate Admissions and the specific program requirements as follows:

Graduate Admissions Criteria:

- Hold a bachelor's degree from a regionally accredited college or university (transcripts for undergraduate and graduate coursework must be submitted from all institutions attended.)
- Pass required subject-specific content examinations (Praxis Content Reading/Math/Writing examinations) during the first 6 hours of the program.
- Complete the A-State Graduate Admissions application and qualify for graduate admission.
- The acceptance of previous graduate work including transfer work is at the discretion of the MAT Program Director and must meet the requirements as outlined in the current Graduate Bulletin.

Unconditional Admission: In addition to Graduate Admission criteria, academic proficiency must be established through satisfaction of the following admission criteria:

- Achieved a minimum cumulative undergraduate grade point average of 2.70 (on a 4.00 scale) **or** a minimum cumulative grade point average of 3.00 on at least 12 hours of previous graduate work with no more than one course grade of "C" and no course grade below a "C".
- Have a written agreement from a practicing teacher in special education who will function as your mentor during the program.

Conditional Admission: Conditional admission may be granted to candidates for up to six (6) hours if the undergraduate GPA requirement is not met. Students who fail to remove the conditional status by the end of the first 6 hours of coursework in the MAT SPED graduate program will be dropped from the degree program. Students must make a grade of A or B while in conditional status.

Requirements for Admission to the Teacher Education Program: All students must be admitted to the Teacher Education Program by the end of 6 hours of coursework by completing all requirements as outlined by the Professional Education Program's (PEP) office.

Requirements for Admission to Internship (Semester prior to Internship): All students must complete and pass all exams that are required by the Arkansas Division of Elementary and Secondary Education (DESE) exams before being admitted to the Internship.

- Praxis II: Fundamental Subjects (5511) minimum passing score of 148
- Praxis II: Special Education Core Knowledge and Applications (5354) minimum passing score of 151
- Pearson: Foundations of Reading minimum passing score of 229

REQUIREMENTS FOR CONTINUE PROGRAM PARTICIPATION

- Candidates must make an A or B on the initial course ELSE 5003 Special Education Academy 101 in order to continue in the program.
- Make no grade lower than a C on all coursework. Candidates may not have over 2 Cs in their program.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc.) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; or of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.
- All students must complete a portfolio or program assessment that is a culmination of authentic performance based assessments completed throughout the program. Some examinations will be taken online while others will require the student to go to a location where the examination will be proctored through Proctor-U.

Teaching

**Master of Arts in Teaching
Special Education K-12**

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELSE 5003, SPED Academy 101: Foundations of Teaching Students with Exceptional Needs	3
ELSE 5043, Assessment and Instruction for Exceptional Learners	3
ELSE 5633, Literacy Assessment, and Diagnosis of Exceptional Learners	3
ELSE 6023, Characteristics of Individuals with Disabilities	3
ELSE 6053, Advanced Methods of Teaching Students with Mild/Moderate Disabilities	3
ELSE 6073, Advanced Methods of Teaching Students with Significant Disabilities	3
ELSE, 6163, Positive Behavior Interventions and Supports	3
ELSE 6183, Teaching Students with Autism Spectrum Disorders	3
ELSE 6196, Special Education MAT Internship	6
ELSE 5653, Literacy and Language Development for Exceptional Learners	3
ELSE 6083, Cultural Responsive Teaching	3
Total Required Hours:	36

Program of Study for the Master of Science in College Student Personnel Services Degree

PURPOSE OF THE DEGREE

The purpose of the M.S. degree in College Student Personnel Services is to train entry level professionals for a broad array of student services positions in higher education.

The College Student Personnel Services program is housed within the Department of Educational Leadership, Curriculum, and Special Education. The program is designed to be consistent with the curriculum and training guidelines developed by the American College Personnel Association and approved by the Council for the Advancement of Standards in Higher Education (CAS).

PROGRAM ADMISSION PROCEDURES

1. Applicants should go to online admissions
2. Submit application materials online, including:
 - a. Completed Graduate Admissions application form with specified application fee, and official transcripts of all undergraduate and graduate work from all colleges and universities attended.
3. Application file is reviewed by Graduate Admissions.
4. All materials in the complete admissions application file will be reviewed to determine the applicant's eligibility for the program, to determine whether or not the applicant will be admitted, to establish conditions of admission if needed, and to assign an advisor to admitted students
5. Admission application materials will be the basis for admission of the applicant. For applicants who are admitted, admission notification will include identification of the academic advisor and conditions of admission if any.

PROGRAM ADMISSION REQUIREMENTS

To be considered for admission to the M.S. degree program in College Student Personnel Services, applicants must hold an earned bachelor's or master's degree from a regionally accredited institution of higher education, and present evidence of personal qualities consistent with those required for effective practice in student affairs. The indicated grade point averages reflect minimum criteria for consideration of an applicant. A student who is not admitted to the program may appeal the admissions decision to the CSPS program director.

Previous academic work will provide the primary information used by admissions committee members in forming their judgment of an applicant's academic ability. Based upon past academic performance, applicants who are admitted can be admitted on either an unconditional or a conditional basis.

Unconditional Admission Status: Applicants who are admitted will be placed in the unconditional admission status if they meet one of the following:

- a. A minimum undergraduate cumulative grade point average of 2.75 (or 3.00 on the last 60 hours), or
- b. A minimum undergraduate cumulative grade point average of 3.00 (or 3.25 on the last 60 hours), or
- c. A minimum cumulative grade point average of 3.00 on at least 12 hours of previous graduate work with no more than one course grade of "C" and no course grade below a "C."

Conditional Admission Status: Applicants who are admitted will be placed in the conditional admission status if they meet one of the following:

- a. A minimum undergraduate cumulative grade point average of 2.50 (or 2.75 on the last 60 hours), or
- b. A minimum undergraduate cumulative grade point average of 3.00 on the last 60 hours of undergraduate work, or
- c. A minimum cumulative grade point average of at least 3.00 on at least 6 hours of previous graduate work with no more than one grade of "C" or below, or
- d. A minimum cumulative undergraduate grade point average of 2.70, continuous employment (full or part-time) for at least the previous 12 months in a student affairs position at a regionally accredited institution of higher education, and submission of a letter from the Chief Student Affairs Officer of the employing institution attesting that the applicant has shown considerable promise for college student personnel work.

ELIGIBILITY TO CONTINUE IN THE COLLEGE STUDENT PERSONNEL SERVICES PROGRAM

To remove conditional status students must earn a cumulative grade point average of at least 3.00 on their next 12 hours of required courses, and must have no more than one course with a grade of "C." Students who fail to remove conditional status in this manner after their first 12 hours of required courses will be dropped from the program.

Retention checkpoints for students admitted to the College Student Personnel Services program include the following:

1. **Semi-Annual Review:** All students admitted to the program will be subject to semiannual reviews conducted by the degree program committee during the last three weeks of every fall and spring semester. The committee will assess current evidence of a student's relevant personal qualities and his or her academic progress. Any student having earned more than one grade of "C" will come under close scrutiny. As an out come of the review, the committee will approve the student for continuation in the program without conditions, continuation in the program with specified conditions, suspension from the program with conditions for readmission, or removal from the program.
2. **Eligibility for Graduation:** Students who have completed all courses in the College Student Personnel Services program with a 3.00 cumulative grade point average, have a cumulative grade point average of 3.00 on all graduate work, will be eligible for conferral of the degree.

ACADEMIC CREDIT

Credit will not be given for any course completed more than six years prior to completion of the degree. Any course completed more than six years ago will not be applied to the CSPS degree requirements at the time of graduation.

Consistent with the Graduate Programs residence requirement, students may transfer no more than nine (9) hours of course credit toward the M.S. in College Student Personnel Services. Students who want to present work experience in place of practicum may do so, by submitting in writing to the CSPS program director. Practicum course alternatives will be provided by the program director. Such approval will be granted only when the program coordinator can verify that the quality of experience is comparable to that at Arkansas State University and that the student will be unable to complete his or her degree without the waiver. The burden of proof in providing these assurances rests with the student.

College Student Personnel Services

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
CSPS 6333, Student Personnel Services in Higher Education	3
CSPS 6343, College Student Development	3
CSPS 6373, Multicultural Dynamics in Higher Education	3
CSPS 6383, Practicum in College Student Personnel Services	3
CSPS 6393, Assessment, Accreditation and Accountability in Higher Education	3
ELAD 6273, Legal Aspects of Higher Ed	3
ELAD 6313, Higher Education Finance	3
ELAD 6333, Organization and Administration of College Student Personnel Services	3
CSPS 6353, Enrollment Management Theory and Practices in Higher Ed	3
Select three of the following: CCEd 7003, The Community College CSPS 6323, Advising College Students CSPS 6363, Development and Advancement in Higher Ed ELFN 6773, Introduction to Statistics and Research ELAD 6323, Organization and Governance of Higher Education	9
Sub-total	36
Total Required Hours:	36

Program of Study for the Master of Science in Early Childhood Services Degree

PURPOSE OF THE DEGREE

The Master of Science in Early Childhood Services degree is a professional degree designed for individuals who plan to gain a deeper knowledge of how to work with and for young children and their families. The Master of Science in Early Childhood Services program does not lead to an Arkansas teaching license.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science degree program in Early Childhood Services must meet admission requirements of Graduate Admissions.

- **For unconditional admission**, students are required to have a minimum 3.0 cumulative GPA or 3.25 GPA during the last 60 credit hours of university work.
- **For conditional admission**, students are required to have a 2.75 cumulative GPA or 3.0 GPA during the last 60 credit hours of university work.

Early Childhood Services

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Teacher Education Core:	Sem. Hrs.
ELFN 6773, Statistics and Research	3
TE 6253, Perspectives on Professionalism in Education	3
Sub-total	6
Program Requirements:	Sem. Hrs.
Select six of the following: ECH 6423, Documenting Young Children's Learning and Development ECH 6513, Developmental Perspectives ECH 6533, Sources and Models of Early Childhood Curriculum ECH 6543, Administration and Supervision of Programs for Young Children ECH 6583, Practicum in Early Childhood Education I ECH 6593, Practicum in Early Childhood Education II ECH 6773, Research in Early Childhood ECH 6783, Leadership in Early Childhood	18
Six hours of prescribed electives which may include a Thesis or the two courses not taken above.	6
Sub-total	24
Total Required Hours:	30

Program of Study for the Master of Science in Exercise Science Degree

PURPOSE OF THE DEGREE

The Master of Science degree in Exercise Science offers both a thesis and a non-thesis program of study. Both program of study tracts require 33 credit hours. Specifically, the purpose of the Master of Science in Exercise Science degree is to serve students wanting to work in the areas of health and wellness in the clinical, corporate or commercial environments.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science degree program in Exercise Science must meet the admission requirements of Graduate Admissions for unconditional or conditional status. In addition, applicants must meet specific program requirements. Candidates who do not meet the Exercise Science program admission requirement will be required to complete undergraduate coursework to meet identified deficiencies. Previously completed coursework will be evaluated on an individual basis to determine if any deficiencies exist in foundation courses for the discipline. Identified courses may be completed concurrently with graduate work, but must be completed before the degree is awarded. In addition, undergraduate deficiency course removal must be sequenced in order to provide the student with the appropriate background knowledge before enrollment into the respective graduate level course will be allowed.

Applicants must present evidence of potential ability to perform academic work at the advanced graduate level. Standardized test proficiency and past grade performance will be used to provide the primary data for judging academic ability. Other indicators, such as quality of writing in the Applicant's prepared statement and faculty references, will also be considered. Based on past academic performance, an applicant must qualify for either unconditional or conditional admission status.

- **For unconditional admission**, students are required to have a minimum 3.0 cumulative GPA or 3.25 GPA during the last 60 credit hours of university work.
- **For conditional admission**, students are required to have a 2.75 cumulative GPA or 3.0 GPA during the last 60 credit hours of university work.

Applicants are required to submit the following:

- Official transcripts as verification of all coursework and degree(s).
- A formal Statement of Goals which should explain in at least 500 words why he/she is seeking admission into the program and what plans he/she has following the attainment of the degree.
- A current resume.
- At least two letters of recommendation from individuals who can speak to the applicant's academic potential and professional capabilities. Applicants must have at least one recommendation from a university faculty member who is familiar with the applicant's work as a student. The professional recommendation should come from a supervisor in which he/she has evaluated the applicant's current or prior work.

Lastly, faculty may require interviews in addition to written credentials as part of the admission process. In addition to the above requirements, admission to the degree program may require completion of specific prerequisite undergraduate courses. Applicants will be considered for admission during a given review cycle only if all of the above materials have been received by the Graduate Admissions application deadlines. After the initial review of admission materials the committee members can either choose to reject the candidate without an interview or decide to proceed with an interview. Following the interview phase, the Admissions Committee makes its final recommendation to accept the candidate for admission or to deny admission. Incomplete applications will not be considered.

Exercise Science

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
ESPE 6513, Cardiorespiratory Physiology	3
ESPE 6523, Physical Activity for Special Populations	3
ESPE 6533, Laboratory Techniques in Exercise Physiology	3
ESPE 6543, Cellular Physiology in Exercise Science	3
ESPE 6623, Measurement and Statistics	3
ESPE 6653, Neuromuscular Physiology	3
ESPE 6673, Research Design	3
ESPE 6683, Biomechanical Analysis of Sport Skills	3
ESPE 6693, Motor Learning OR ESPE 6663 Advanced Strength Training and Conditioning	3
ESPE 678V, Thesis OR ESPE 681V, Internship	6
Sub-total	33
Total Required Hours:	33

Program of Study for the Master of Science in Psychological Science Degree

PURPOSE OF THE DEGREE

The Master of Science in Psychological Science is a 36-semester hour program intended to provide students with an emphasis in basic and applied psychological research, combined with advanced training in core content areas of psychology. The program is intended for students who seek additional training for further graduate study or entrance into the labor force as applied researchers.

ADMISSION REQUIREMENTS

Applicants must meet the admission requirements of the A-State Graduate Programs and the specific program requirements. In addition to Graduate Admissions criteria, applicants must provide evidence of their potential to perform graduate work in psychological research successfully.

Applicants must satisfy the following criteria:

- For admission to the A-State Graduate Programs, students are required to have a minimum 3.0 cumulative GPA or 3.25 GPA during the last 60 credit hours of university work.
- Students are also required to have a minimum cumulative GPA of 3.25 in their major and must have completed an undergraduate statistics class with a minimum grade of "C".

Applicants are required to submit the following materials:

- Cover letter of interest
- Three letters of recommendation
- Official GRE scores
- Statement of Purpose describing the applicant's reason for entering the program, previous research experience, and current research interests
- Current Vita
- Official transcripts

Following review of the application materials, selected applicants will complete an entrance interview (phone, internet video, or in person).

Psychological Science

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
PSY 5303, Research Methodology	3
PSY 5313, Applied Analysis of Psychological Research I	3
PSY 5623, Program Development, Implementation, and Analysis	3
PSY 6313, Applied Analysis of Psychological Research II	3
PSY 6423, Professional Writing and Thesis Development	3
PSY 6673, Foundations of Organizational Psychology	3
PSY 6643, Foundations of Cognitive Psychology	3
PSY 6653, Foundations of Social Psychology	3
PSY 6663, Advanced Psychological Seminar (Topics vary and can be taken multiple times for credit) OR Electives approved by the Program Coordinator	6
PSY 680V, Thesis	6
Sub-total	36
Total Required Hours:	36

Program of Study for the Master of Science in Sport Administration Degree

PURPOSE OF THE DEGREE

The M.S. Sport Administration degree in the Department of Health, Physical Education & Sport Sciences is designed as a 36-credit hour program that serves graduate students interested in preparing for management or administrative opportunities in professional sports, intercollegiate and interscholastic athletics, sport facilities, and sports marketing and management agencies.

ADMISSION REQUIREMENTS

Applicants must meet the admission requirements of the A-State Graduate Admissions and the specific program requirements. The minimum requirement for admission is the baccalaureate degree or its equivalent from an accredited institution.

Applicants must present evidence of potential ability to perform academic work at the advanced graduate level. Past grade performance will be used to provide the primary data for judging academic ability. Other indicators, such as quality of writing in the Applicant's prepared statement and faculty references, will also be considered. Based on past academic performance, an applicant must qualify for either unconditional or conditional admission status.

- **For unconditional admission**, students are required to have a minimum 3.0 cumulative GPA or 3.25 GPA during the last 60 credit hours of university work.
- **For conditional admission**, students are required to have a 2.75 cumulative GPA or 3.0 GPA during the last 60 credit hours of university work.

Applicants are required to submit the following:

- Official transcripts as verification of all coursework and degree(s).
- A formal Statement of Goals which should explain in at least 500 words why he/she wants to be admitted into the program and what he/she plans to do with the M.S. in Sport Administration degree.
- A current resume.
- At least two letters of recommendation from individuals who can speak to the applicants academic potential and professional capabilities. Applicants must have at least one recommendation from a university faculty member who is familiar with the applicant's work as a student. The professional recommendation should come from a supervisor in which he/she has evaluated the applicant's current or prior work.

Lastly, faculty may require interviews in addition to written credentials as part of the admission process. In addition to the above requirements, admission to the degree program may require completion of specific prerequisite undergraduate courses. Applicants will be considered for admission during a given review cycle only if all of the above materials have been received by the Graduate Admissions application deadlines. After the initial review of admission materials the committee members can either choose to reject the candidate without an interview or decide to proceed with an interview. Following the interview phase, the Admissions Committee makes its final recommendation to accept the candidate for admission or to deny admission. Incomplete applications will not be considered.

ADDITIONAL REQUIREMENTS

A-State uses Blackboard as the learning management system. This platform allows synchronous and asynchronous interactions, streaming video and electronic discussion boards. Students might also interact via email, Zoom video, or phone. A high-speed internet connection (fiber optic, cable, DSL, wireless hotspot or satellite) will be required.

COMPREHENSIVE EXAMINATION

All students completing the nonthesis track (i.e. internship) in the M.S. Sport Administration degree program are required to pass the comprehensive exam with a score of 4 or greater in each of the program's required courses. The exam is administered on one day in each semester (Fall, Spring, and Summer). To be eligible to take the comprehensive exam, students must be in good academic standing (3.0 GPA or above) in all graduate program coursework completed in the M.S. Sport Administration program, and in their last semester of coursework or have all courses completed. Students request to sit for the exam by contacting the program coordinator.

Sport Administration

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ESPE 6103, Ethical Issues in Sport	3
ESPE 6113, Sport Law	3
ESPE 6123, Sport Marketing	3
ESPE 6133, Sport Finance & Budgeting	3
ESPE 6143, Sport Communications	3
ESPE 6153, Sport Leadership	3
ESPE 6163, Sport Governance & Operations	3
ESPE 6603, Sport in Society	3
ESPE 6643, Current Readings Seminar in Physical Education and Sport Science	3
ESPE 6673, Research Design	3
ESPE 681V, Internship OR ESPE 678V, Thesis	6
Sub-total	36
Total Required Hours:	36

Program of Study for the Master of Science in Education Degree in Curriculum and Instruction

PURPOSE OF THE DEGREE

The M.S.E. in Curriculum and Instruction is designed to prepare Curriculum Directors, Special Education Directors, and Gifted, Talented and Creative Directors. Students in this master's degree program focus on areas of learning that include:

- Enhancing leadership skills, dispositions, and practices
- Evaluating and improving processes of curriculum development
- Enriching instructional best practices
- Developing tools for individuals to serve as professional curriculum specialists
- Enhancing professional growth by emphasizing critical and analytical skills, communication and collaboration skills, and strong organizational and management skills

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Curriculum and Instruction must meet the admission requirements of Graduate Admissions and the specific program requirements.

Unconditional Admission Status:

- Hold a valid teaching license.
- Achieved a minimum cumulative undergraduate grade point average of 3.00 (on a 4.00 scale).
- Have one year of teaching experience.
- Have a written commitment from a practicing program director who is in your area of licensure and who will function as your mentor during the program.
- No felony record
- Candidates will be required to submit a provided self-disposition document and, verification for teacher effectiveness and leadership abilities.
- Applicants who qualify for an interview appear before the interview committee, which then decides whether the applicant meets program requirements and expectations. If an applicant is approved for admission to the program, the committee sets any conditions of admission.

Unconditional Admission Status for Gifted, Talented & Creative Director program:

- Hold a valid Gifted Talented Creative teaching license.
- Achieved a minimum cumulative undergraduate grade point average of 3.00 (on a 4.00 scale).
- Have one year of Gifted Talented Creative teaching experience.
- Have a written commitment from a practicing program director who is in your area of licensure and who will function as your mentor during the program.
- No felony record

Conditional Admission Status: Students who do not meet the requirements for unconditional admission may be granted conditional admission as follows:

- Hold a valid teaching license.
- Achieved a minimum cumulative undergraduate grade point average of 2.75 (on a 4.00 scale) or a 3.00 GPA on the last 60 hours. Any courses attempted, including any repeated courses, are considered in computing the GPA.
- Have two years of teaching experience.

- Have a written commitment from a practicing program director who is in your area of licensure and who will function as your mentor during the program.
- No felony record
- Candidates will be required to submit a provided self-disposition document and, verification for teacher effectiveness and leadership abilities.
- Applicants who qualify for an interview appear before the interview committee, which then decides whether the applicant meets program requirements and expectations. If an applicant is approved for admission to the program, the committee sets any conditions of admission.
- Signed site mentor form that meets the qualifications set by the degree program.

Students who fail to remove conditional status upon completing 12 semester hours of graduate work in the program will be dropped from the degree program.

ADDITIONAL REQUIREMENTS

- A-State will be using Blackboard as the web delivery platform. This platform allows synchronous and asynchronous interactions, streaming video and electronic discussion boards. Students will also interact via e-mail, telephone, and fax.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; any processor of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.
- Comprehensive Examination: All students completing the Specialist Degree in Educational Leadership are required to take and pass the comprehensive exam with an 80% or better. To be eligible to take the comprehensive exam, students must have earned an overall graduate grade point average of 3.00 and have earned a cumulative grade point average of at least a 3.00 on all coursework completed in the Specialist Degree in Educational Leadership.

Curriculum and Instruction

Master of Science in Education Curriculum Director Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6073, School Law	3
ELAD 6203, Ethical Leadership	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision & Evaluation of Teaching	3
ELCI 6323, Elementary Curriculum	3
ELCI 6423, Middle School Curriculum	3
ELCI 6493, Curriculum Internship	3
ELCI 6523, Secondary School Curriculum	3
ELCI 6533, Theories of Instruction	3
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Statistics and Research	3
Sub-total	36
Total Required Hours:	36

Curriculum and Instruction

Master of Science in Education Gifted, Talented and Creative Director Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6033, Administration & Supervision of Special Education	3
ELAD 6053, Planning and Resource Allocation	3
ELAD 6073, School Law	3
ELAD 6203, Ethical Leadership	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision & Evaluation of Teaching	3
ELCI 6493, Curriculum Internship	3
ELCI 6533, Theories of Instruction	3
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6323, Elementary Curriculum ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum	3
Sub-total	36
Total Required Hours:	36

Curriculum and Instruction

Master of Science in Education Special Education Director Track

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6033, Administration & Supervision of Special Education	3
ELAD 6073, School Law	3
ELAD 6203, Ethical Leadership	3
ELAD 6423, Ethical and Legal Issues in Special Education	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision & Evaluation of Teaching	3
ELCI 6493, Curriculum Internship	3
ELCI 6533, Theories of Instruction	3
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6323, Elementary Curriculum ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum	3
Sub-total	36
Total Required Hours:	36

Program of Study for the Master of Science in Education Degree in Early Childhood Education

PURPOSE OF THE DEGREE

The purpose of the M.S.E. degree in Early Childhood Education is to offer educators and educators-in-training a planned program of study focusing on the developmental and educational needs of young children. The program of study outlines herein leads to the successful completion of the graduate degree. This is not a "program of study" leading to initial teaching licensure.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Early Childhood Education must meet the admission requirements of Graduate Admissions. In addition, applicants must have a valid teaching license (Arkansas or other state).

Unconditional Admission: In addition to Graduate Admissions criteria, academic proficiency must be established through satisfaction of the following admissions selection criteria:

- A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours)

Conditional Admission: In addition to Graduate Admissions criteria for conditional admission, academic proficiency must be established through satisfaction of the following admission selection criteria:

- A minimum cumulative undergraduate grade point average of 2.5

Early Childhood Education

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Teacher Education Core:	
	Sem. Hrs.
ELFN 6773, Statistics and Research	3
TE 6233, Teaching and Assessment	3
TE 6253, Perspectives on Professionalism in Education	3
Sub-total	9
Program Requirements:	
	Sem. Hrs.
ECH 6423, Documenting Young Children's Learning and Development	3
ECH 6513, Developmental Perspectives	3
ECH 6533, Sources and Models of Early Childhood Curriculum	3
ECH 6713, Technology and Early Childhood	3
ECH 6773, Research in Early Childhood	3
ECH 6783, Leadership in Early Childhood	3
TE 6283, Practicum in Teacher Education	3
Sub-total	21
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in Educational Leadership

PURPOSE OF THE DEGREE

The Masters Degree in Educational Leadership offers educators a planned program of study designed to improve their general educational and specific professional competencies as leaders in the public school systems. The degree is specifically designed to prepare building level administrators and is based on recommendations from professional organizations and accrediting associations.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Educational Leadership must meet the admission requirements of Graduate Admissions and the specific program requirements as follows:

Unconditional Admission Status:

- Hold a valid teaching license.
- Achieved a minimum cumulative undergraduate grade point average of 3.00 (on a 4.00 scale).
- Have two years of teaching experience.
- Have a written commitment from a practicing program director who is in your area of licensure and who will function as your mentor during the program.
- No felony record
- Candidates will be required to submit a provided self-disposition document and, verification for teacher effectiveness and leadership abilities.
- Applicants who qualify for an interview appear before the interview committee, which then decides whether the applicant meets program requirements and expectations. If an applicant is approved for admission to the program, the committee sets any conditions of admission.
- Signed site mentor form that meets the qualifications set by the degree program.

Conditional Admission Status: Students who do not meet the requirements for unconditional admission may be granted conditional admission as follows:

- Hold a valid teaching license.
- Achieved a minimum cumulative undergraduate grade point average of 2.75 (on a 4.00 scale) or a 3.00 GPA on the last 60 hours. Any courses attempted, including any repeated courses, are considered in computing the GPA.
- Have two years of teaching experience.
- Have a written commitment from a practicing program director who is in your area of licensure and who will function as your mentor during the program.
- No felony record
- Candidates will be required to submit a provided self-disposition document and, verification for teacher effectiveness and leadership abilities.
- Applicants who qualify for an interview appear before the interview committee, which then decides whether the applicant meets program requirements and expectations. If an applicant is approved for admission to the program, the committee sets any conditions of admission.
- Signed site mentor form that meets the qualifications set by the degree program.

Students who fail to remove conditional status upon completing 12 semester hours of graduate work in the program will be dropped from the degree program.

ADDITIONAL REQUIREMENTS

- A-State will be using Blackboard as the web delivery platform. This platform allows synchronous and asynchronous interactions, streaming video and electronic discussion boards. Students will also interact via e-mail, telephone, and fax.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; any processor of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.
- Comprehensive Examination: All students completing the Specialist Degree in Educational Leadership are required to take and pass the comprehensive exam with an 80% or better. To be eligible to take the comprehensive exam, students must have earned an overall graduate grade point average of 3.00 and have earned a cumulative grade point average of at least a 3.00 on all coursework completed in the Specialist Degree in Educational Leadership.

Educational Leadership

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELAD 6003, School and Community Relations	3
ELAD 6033, Administration and Supervision of Special Education	3
ELAD 6053, Planning and Resource Allocation	3
ELAD 6073, School Law	3
ELAD 6203, Ethical Leadership	3
ELAD 6593, Supervised Internship	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision and Evaluation of Teaching	3
Select one of the following: ELCI 6323, Elementary School Curriculum ELCI 6423, Middle School Curriculum ELCI 6523, High School Curriculum	3
ELAD 6573, Leading School Improvement	3
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Statistics and Research	3
Sub-total	36
Total Required Hours:	36

Program of Study for the Master of Science in Education Degree in Educational Theory and Practice

PURPOSE OF THE DEGREE

Teachers who wish to improve their general understanding of curriculum theory and current practices and to increase their professionalism and competency in a variety of current educational issues. Some candidates in this constituency might also utilize this degree in seeking their National Board licensure. Within this master's degree, students focus on areas of learning that include:

- Practices to enhance student achievement
- Performance and field-based learning activities integrating theory and practice
- Enrichment of teaching knowledge and skills regarding instruction and curriculum
- Assist in preparation for the National Board Certification process.

ADMISSION REQUIREMENTS

To be considered for the MSE Degree-Educational Theory and Practice, each candidate must have, in addition to the admission requirements of Graduate Admissions, the following:

- Hold a current teaching license
- Have a 2.75 GPA on undergraduate work or 3.0 in last 60 hours
- No felony record

ADDITIONAL REQUIREMENTS

- Students who adhere to the schedule should be able to complete the program in 24 months. If a candidate finds it necessary to deviate from the schedule, he/she will be able to re-enter the sequence at any time. A student has six years to complete the degree.
- A-State will be using Blackboard as the web delivery platform. This platform allows synchronous and asynchronous interactions, streaming video and electronic discussion boards. Students will also interact via e-mail, telephone, and fax.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; any processor of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.
- The capstone experience, which serves as the comprehensive examination for the degree, focuses on developing descriptive, analytical, and reflective writing as preparatory for the National Board portfolio.

Educational Theory and Practice

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELAD 6003, School and Community Relations	3
ELCI 6043, Reflective Teaching	3
ELCI 6063, Curriculum Management	3
ELCI 6533, Theories of Instruction	3
ELCI 6773, National Teaching Standards Capstone Experience	3
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Research and Statistics	3
ELSE 5733, Gifted children in the Regular Classroom	3
ELSE 6053, Advanced Methods of Teaching Students with Mild/Moderate Disabilities	3
TE 6263, Teachers as Professionals: Working Toward National Teaching Standards	3
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in Physical Education

PURPOSE OF THE DEGREE

The Master of Science in Education degree with a major in Physical Education offers two programs of study options. The Master of Science in Education degree in Physical Education is designed to provide a quality professional program in the field of Physical Education that meets standards at the graduate level.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Physical Education must meet the admission requirements of Graduate Admissions and specific program requirements. In addition, applicants must have completed a minimum of 18 semester hours of professional education courses including the requirements for a valid teaching certificate based on a four-year teacher education program. Applicants who do not meet the requirements for a valid teaching certificate based on a four-year teacher education program will be required to complete the undergraduate courses required for such a certificate. These courses may be completed concurrently with graduate work, but must be completed before the degree is awarded. In addition, undergraduate deficiency course removal must be sequenced in order to provide the student with the appropriate background knowledge before enrollment into the respective graduate level course will be allowed.

Applicants must present evidence of potential ability to perform academic work at the advanced graduate level. Past grade performance will be used to provide the primary data for judging academic ability. Other indicators, such as quality of writing in the Applicant's prepared statement and faculty references, will also be considered. Based on past academic performance, an applicant must qualify for either unconditional or conditional admission status.

For unconditional admission, students are required to have a minimum 3.0 cumulative GPA or 3.25 GPA during the last 60 credit hours of university work.

For conditional admission, students are required to have a 2.75 cumulative GPA or 3.0 GPA during the last 60 credit hours of university work.

Applicants are required to submit the following:

- Official transcripts as verification of all coursework and degree(s).
- A formal Statement of Goals which should explain in at least 500 words why he/she is seeking admission into the program and what plans he/she has following the attainment of the degree.
- A current resume.
- At least two letters of recommendation from individuals who can speak to the applicant's academic potential and professional capabilities. Applicants must have at least one recommendation from a university faculty member who is familiar with the applicant's work as a student. The professional recommendation should come from a supervisor in which he/she has evaluated the applicant's current or prior work.

Lastly, faculty may require interviews in addition to written credentials as part of the admission process. In addition to the above requirements, admission to the degree program may require completion of specific prerequisite undergraduate courses. Applicants will be considered for admission during a given review cycle only if all of the above materials have been received by the Graduate Admissions application deadlines. After the initial review of admission materials the committee members can either choose to reject the candidate without an interview or decide to proceed with an interview. Following the interview phase, the Admissions Committee makes its final recommendation to accept the candidate for admission or to deny admission. Incomplete applications will not be considered.

Physical Education Master of Science in Education Thesis Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education for Secondary Teaching Courses:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
Select one of the following: ELCI 6023, Educational Media ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELCI 6573, Educational Measurement ELFN 6763, Philosophies of Education (<i>if not taken above</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken above</i>)	3
Sub-total	6
Program Requirements:	Sem. Hrs.
Select one of the following: ELAD 6203, Ethical Leadership ESPE 6113, Sport Law ESPE 6133, Sport Finance	3
ESPE 6623, Measurement and Statistics	3
ESPE 6633, Curriculum Construction in Physical Education	3
ESPE 6643, Current Readings	3
ESPE 6663, Advanced Strength Training OR ESPE 6693, Motor Learning	3
ESPE 6673, Research Design	3
ESPE 6683, Biomechanical Analysis of Sports Skills	3
Sub-total	21
Thesis:	Sem. Hrs.
ESPE 6786, Thesis	6
Total Required Hours:	33

Physical Education

Master of Science in Education Non-Thesis Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education for Secondary Teaching Courses:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
Select two of the following: ELAD 6203, Ethical Leadership ELCI 6023, Educational Media ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELCI 6573, Educational Measurement ELFN 6763, Philosophies of Education (<i>if not taken above</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken above</i>)	6
Sub-total	9
Program Requirements:	Sem. Hrs.
ESPE 6113, Sport Law	3
ESPE 6133, Sport Finance and Budgeting	3
ESPE 6623, Measurement and Statistics	3
ESPE 6633, Curriculum Construction in Physical Education	3
ESPE 6643, Current Readings	3
ESPE 6663 Advanced Strength Training and Conditioning OR ESPE 6693, Motor Learning	3
ESPE 6673, Research Design	3
ESPE 6683, Biomechanical Analysis of Sport Skills	3
Sub-total	24
Total Required Hours:	33

Program of Study for the Master of Science in Education Degree in Reading

PURPOSE OF THE DEGREE

The purpose of the M.S.E. degree in Reading is to offer educators and educators-in training a planned program of study focusing on skills and techniques of teaching reading including the diagnosis and remediation of reading problems.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Reading must meet the admission requirements of Graduate Admissions and the specific program requirements. In addition, applicants must have a valid teaching license (Arkansas or other state).

Unconditional Admission: In addition to Graduate Admissions criteria, academic proficiency must be established through the satisfaction of one of the following admissions selection criteria:

- a. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours); or a minimum raw score of a 380 on the Miller Analogies Test (MAT); or a minimum scaled score of 150 on the verbal reasoning section and a minimum scaled score of 141 on the quantitative reasoning sections of the GRE.
- b. A written agreement from a practicing teacher in reading/language arts who will function as your mentor during the program.
- c. Participation in an assessment of professional dispositions
- d. Completion of a partnership school agreement

Conditional Admission: In addition to Graduate Admissions criteria for conditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

- a. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours); or a minimum raw score of a 388 on the MAT; or a minimum scaled score of 150 on the verbal reasoning section and a minimum scaled score of 141 on the quantitative reasoning sections of the GRE.
- b. A written agreement from a practicing teacher in reading/language arts who will function as your mentor during the program.
- c. Participation in an assessment of professional dispositions
- d. Completion of a partnership school agreement

Conditional admission requires the student to earn a minimum grade of B or better in the first two classes of the graduate program.

Reading

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Teacher Education Core:	Sem. Hrs.
ELFN 6773, Statistics and Research	3
TE 6253, Perspectives on Professionalism	3
Sub-total	6
Program Requirements:	Sem. Hrs.
RDNG 6103, The National Writing Project Model: Processes of Writing	3
RDNG 6313, Theory and Practice in Teaching Reading	3
RDNG 6333, Reading Practicum I - Diagnosis and Intervention	3
RDNG 6353, Reading Practicum II - Leadership in Literacy	3
RDNG 6513, Emergent Literacy Birth Through Primary Years	3
RDNG 6533, Literacy for Diverse Learners	3
RDNG 6553, Adolescent Literacy	3
RDNG 6563, Principles of Literacy Cognition	3
Sub-total	24
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in School Counseling

PURPOSE OF THE DEGREE

The purpose of the M.S.E. degree in School Counseling is to train school counseling professionals with expert skills in coordinating school counseling programs, supporting the teaching/learning process, counseling with students, and consulting with persons having significant influence on students' well-being and development. This program provides graduate-level study which is based on the comprehensive developmental model of school guidance and counseling. This program prepares K-12 counselors to promote development of skills and experiences needed by all students for success in school and later life, to develop prevention programs focused on predictable hindrances to development of identifiable groups of students, to conduct interventions for remediation of individual concerns, and to intervene with both groups and individuals in crisis situations.

Throughout the program, school counseling trainees are required to engage in experiences intended to increase their self-awareness and promote their own personal and professional development. The educational and developmental orientation of the School Counseling Program provides students with unique expertise that makes them the appropriate choice for counseling practice in a school setting. Students in the School Counseling Program experience a depth of training and acquire a level of expertise for practice in the school setting that is comparable to that of counselors in other settings.

PROGRAM ADMISSION PROCEDURES

1. Contact the Graduate School for an application materials packet.
2. Submit to the Graduate School all application materials, including:
 - a. Completed Graduate School application form with specified application fee, proof of immunization for measles and rubella (if date of birth is January 1957 or later), selective service status form, and separate official transcripts of all undergraduate and graduate work from all colleges and universities attended.
 - b. Official report of a score, obtained within the last five (5) years, on the Graduate Record Examination (GRE).
 - c. A typewritten essay that addresses (1) personal, educational, and career goals and aspirations; (2) personal perceptions of influences on goals and aspirations; and (3) personal view of the role and value of school counseling.
 - d. Three appraisal/recommendation forms, with at least one completed by a work supervisor and at least one completed by a faculty member in the applicant's most recent academic program of study. (When the applicant has not completed that program of study, a statement of status in that program also is required.)

Applicants who have not been enrolled in an academic program for more than five years may substitute a recommendation from a current or recent employer for the faculty recommendation. The third form may be completed by anyone who can attest to the applicant's ability and/or character, except that it may not be completed by anyone who is a relative of the applicant.

3. Application file is reviewed by the Graduate School and, if applicant qualifies for admission to the Graduate School, the file (including all materials listed above) is forwarded to the School Counseling Program Coordinator in the Department of Psychology and Counseling.
4. Application file is reviewed by the School Counseling Program Committee on Admissions. This committee evaluates all materials submitted by the applicant, decides whether the applicant meets program requirements and expectations, appoints an academic adviser for the applicant who is admitted to the program, and sets any conditions of admission.
5. Application file is returned to the Graduate School for notification to the applicant of the admission status. For applicants who are admitted, the notice also will include identification of academic adviser and conditions of admission, if any.

PROGRAM ADMISSION PROCEDURES

To be considered for admission to the School Counseling Program, applicants must present evidence of qualities consistent with those required for effective school counseling practice. The written statement prepared by the applicant, combined with the appraisal/recommendation forms from references, will be used as the basis for committee members' judgment of the applicant's personal and interpersonal qualities. All persons admitted to the program are required to meet the same standard in regard to these qualities.

Applicants also must present evidence of potential ability to perform academic work at the advanced graduate level. Standardized test proficiency and past grade performance provide the primary data for judging academic ability; other indicators, such as quality of writing in the applicant's prepared statement, also will be considered. Based on the combination of test proficiency and past academic performance, an applicant may qualify for either unconditional or conditional admission status.

Unconditional Admission Status:

Academic proficiency for unconditional admission may be established through satisfaction of either of the following criteria:

- a. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours of undergraduate work) and a minimum cumulative score of 290 on the combined verbal and quantitative sections of the GRE.
- b. Unconditional admission to the Graduate School, a cumulative score of at least 290 on the combined verbal and quantitative sections of the GRE and a minimum cumulative graduate grade point average of 3.25 on 12 or more hours with no grade less than a "B."

Conditional Admission Status:

Academic proficiency for conditional admission may be established through satisfaction of either of the following criteria:

- a. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours of undergraduate work) and a cumulative score of at least 290 on the combined verbal and quantitative sections of the GRE.
- b. Unconditional admission to the Graduate School and a minimum cumulative graduate grade point average of 3.00 on 12 or more semester hours with no more than one course with a grade of "C" and no grade less than a "C." GRE scores may be required.

ELIGIBILITY TO CONTINUE IN THE SCHOOL COUNSELING PROGRAM

Students admitted in Conditional status must earn a cumulative grade point average of at least 3.00 on the next 12 hours of course requirements and have no more than one course in these 12 hours with a grade of "C." Students who fail to remove Conditional status in this manner will be dropped from the School Counseling Program.

Retention checkpoints for students admitted to the School Counseling Program include the following:

1. Semi-Annual Review:

In addition to the academic standards for continuing enrollment, all students admitted to the School Counseling Program will be subject to semiannual review by the Degree Program Committee. This semi-annual review will be conducted at some time during the last three weeks of the Fall and Spring semesters. At this review, the Committee will assess current evidence of each student's personal and interpersonal qualities deemed essential for effective school counseling practice. The Committee also will assess overall quality of academic performance, and any student having earned more than one grade of "C" will come under close scrutiny. Outcomes at each review may be approval for unrestricted continuation in the program, approval for continuation in the program with specified contingencies, suspension from the program with specified contingencies for readmission, or removal from the program.

2. Approval to Register for Clinical Courses:

Eligibility to enroll in supervised clinical training (i.e., COUN 6213, 6223, and 6233) is subject to approval of a Screening Committee. To obtain this approval, a student must have successfully completed all prerequisites and be deemed to have shown evidence of readiness for the level of practice required in the particular course.

3. Eligibility for Comprehensive Examination:

Students who have earned an overall graduate grade point average of 3.00, have earned a cumulative grade point average of at least 3.00 on all courses completed in the School Counseling Program, and are enrolled for their final period of study will be eligible to sit for the comprehensive examination.

4. Eligibility for Graduation:

Students who have earned an overall graduate grade point average of 3.00, have completed all courses required for the School Counseling Program and earned a cumulative grade point average of at least 3.00 on these courses, have earned a grade of "B" or better for clinical courses (i.e., COUN 6213, COUN 223, and COUN 6233), have taken the appropriate PRAXIS II examination, and have passed the comprehensive examination will be eligible for conferral of degree.

ACADEMIC CREDIT

Graduate School policy prohibits credit toward degree requirements for any courses completed more than six years prior to completion of the degree program. In addition, both degree-seeking and nondegree-seeking students enrolling in COUN and PSY courses are expected to provide evidence that prerequisite knowledge is sufficiently current to support successful academic and/or clinical performance. Thus, students with dated courses may be asked to repeat such courses whether or not they have been used to fulfill requirements of another degree.

All candidates for the M.S.E. degree in School Counseling must take the PRAXIS II specialty area test in Professional School Counseling (#0421) before graduation. The candidate must arrange for a score to be sent to Arkansas State University and must provide a copy of the individual score report to the program coordinator.

School Counseling
Master of Science in Education
Concentration in Crisis and Trauma

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
COUN 6033, Social and Cultural Foundations of Counseling	3
COUN 6053, Ethical, Legal and Professional Issues in Counseling	3
COUN 6123, Group Counseling	3
COUN 6213, Counseling Practicum	3
COUN 6223, Counseling Internship – Elementary School	3
COUN 6233, Counseling Internship – Secondary School	3
COUN 6473, Child and Adolescent Counseling	3
COUN 6603, Foundational Knowledge of Prof. School Counseling and Prof. Practice	3
COUN 6623, Data-Informed Professional School Counseling	3
COUN 6663, Techniques and Instructional School Counseling Interventions	3
COUN 6843, Theories of Professional School Counseling	3
COUN 6873, Program Development in Professional School Counseling	3
PSY 6543, Psycho-Social Aspects of Development	3
Sub-total	39
Concentration Area (Crisis and Trauma):	Sem. Hrs.
COUN 6803: Multicultural Issues in Crisis and Trauma	3
COUN 6883: Introduction to Crisis and Trauma in Children and Adolescents	3
COUN 6893: School-Based Crisis Planning and Intervention	3
Sub-total	9
Total Required Hours:	48

School Counseling
Master of Science in Education
Concentration in Special Populations

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
COUN 6033, Social and Cultural Foundations of Counseling	3
COUN 6053, Ethical, Legal and Professional Issues in Counseling	3
COUN 6123, Group Counseling	3
COUN 6213, Counseling Practicum	3
COUN 6223, Counseling Internship – Elementary School	3
COUN 6233, Counseling Internship – Secondary School	3
COUN 6473, Child and Adolescent Counseling	3
COUN 6603, Foundational Knowledge of Prof. School Counseling and Prof. Practice	3
COUN 6623, Data-Informed Professional School Counseling	3
COUN 6663, Techniques and Instructional School Counseling Interventions	3
COUN 6843, Theories of Professional School Counseling	3
COUN 6873, Program Development in Professional School Counseling	3
PSY 6543, Psycho-Social Aspects of Development	3
Sub-total	39
Concentration Area (Special Populations):	Sem. Hrs.
COUN 6003: Counseling Students who are Gifted and Talented in the School Setting	3
COUN 6703: Counseling English Language Learners in the School Setting	3
COUN 6813: Counseling Students with Disabilities in the School Setting	3
Sub-total	9
Total Required Hours:	48

Program of Study for the Master of Science in Education Degree in Special Education - Gifted, Talented and Creative

PURPOSE OF THE DEGREE

The purpose of the Master of Science in Education degree with a major in Special Education - Gifted, Talented, and Creative (GTC) - is to offer educators a planned performance-based program of study related to the education of gifted, talented, and creative students which is based on recommendations of professional organizations and accrediting associations such as the National Association for Gifted Children (NAGC), Council for Exceptional Children (CEC) and NCATE.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Special Education-Instructional Specialist Gifted, Talented and Creative must meet the admission requirements of Graduate Admissions and the specific program requirements as follows:

- Hold a valid teaching license.
- Achieved minimum cumulative undergraduate grade point average of 2.75 (on a 4.00 scale) or a 3.00 GPA on the last 60 hours. Any courses attempted, including any repeated courses, are considered in computing the GPA.
- Have a written commitment from a practitioner who will function as your mentor during the program.
- No felony record

ADDITIONAL REQUIREMENTS

- Students who adhere to the schedule should be able to complete the program in 24 months. If a candidate finds it necessary to deviate from the schedule, he/she will be able to re-enter the sequence at any time. A candidate has six years to complete the degree.
- A-State will be using Blackboard as the web delivery platform. This platform allows synchronous and asynchronous interactions, streaming video, and electronic discussion boards. Students will also interact via e-mail, telephone, and fax.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; any processor of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.
- The capstone experience serves as the comprehensive examination for the degree. All MSE candidates and ADE licensure candidates (those on an Additional Licensure Plan or obtaining a Program of Study – 18 hours for any reason) must complete and pass the Praxis II in GT, according to Arkansas Department of Education passing score guidelines, before entering the capstone internship experience ELSE 6833 Practicum.
- All students must complete a portfolio that is a culmination of authentic performance-based assessments completed throughout the program. Some examinations will be taken online while others will require the student to go to a location where the examination will be proctored.

Special Education - Gifted, Talented and Creative

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELSE 5703, Identification, Nature, and Needs of the Gifted, Talented, and Creative	3
ELSE 5713, Educational Procedures and Materials for the Gifted, Talented, and Creative	3
ELSE 5723, Assessment for Programming in the Classroom	3
ELSE 5813, Current Issues in Gifted Education	3
ELSE 6033, Affective Programming in the Classroom	3
ELSE 6433, Creativity	3
ELFN 6763, Philosophies of Education	3
ELFN 6773, Introduction to Statistics and Research	3
ELSE 6833, Practicum for Gifted, Talented, and Creative	3
ELSE 6843, Capstone: Advanced Practicum for Gifted, Talented, and Creative	3
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in Special Education Instructional Specialist Grades K-12

PURPOSE OF THE DEGREE

The purpose of the M.S.E. degree in Special Education - Instructional Specialist K-12 is to offer educators an advanced performance-based program of study based on the recommendations of professional organizations and accrediting associations such as the Council for Exceptional Child (CEC) and NCATE.

This program prepares personnel to work in a variety of professional roles with young children with disabilities, kindergarten through grade 12, and their families. Upon completion of this M.S.E. degree program, students are eligible for endorsement in special education in Arkansas. Students seeking endorsement in special education without pursuing the M.S.E. degree should see an adviser for an analysis of completed courses and a suggested program of study.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Special Education-Instructional Specialist Grades K -12 must meet the admission requirements of Graduate Education and the specific program requirements as follows:

- Hold a valid teaching license.
- Achieved a minimum cumulative undergraduate grade point average of 2.75 (on a 4.00 scale) or a 3.00 GPA on the last 60 hours. Any courses attempted, including any repeated courses, are considered in computing the GPA.
- Have a written commitment from a practitioner who will function as your mentor during the program.
- No felony record

ADDITIONAL REQUIREMENTS

- Students who adhere to the schedule should be able to complete the program in 24 months. If a candidate finds it necessary to deviate from the schedule, he/she will be able to re-enter the sequence at any time. A candidate has six years to complete the degree.
- A-State will be using Blackboard as the web delivery platform. This platform allows synchronous and asynchronous interactions, streaming video, and electronic discussion boards. Students will also interact via e-mail, telephone, and fax.
- A high-speed internet connection (Ethernet, cable, DSL, public wireless hotspot, satellite, etc.) will be necessary. Dial-up will not work. Computers must have specific minimum requirements. For example, they must have a Windows XP or later operating system; any processor of 1.2GHZ or faster; minimum RAM of 512MB for XP or 1GB for Vista; minimum of 20GB available free disk space; minimum display resolution of 1024x768.
- The capstone experience serves as the comprehensive examination for the degree. All MSE candidates and ADE licensure candidates (those on an Additional Licensure Plan or obtaining a Program of Study – 18 hours for any reason) must complete and pass the Praxis II in Special Education, according to Arkansas Department of Education passing score guidelines, before entering the internship experience ELSE 6193 Laboratory Experiences.
- All students must complete a portfolio that is a culmination of authentic performance based assessments completed throughout the program. Some examinations will be taken online while others will require the student to go to a location where the examination will be proctored.

Special Education - Instructional Specialist K-12

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ELAD 6423, Ethical and Legal Issues in Special Education	3
ELSE 5043, Assessment and Instruction for Exceptional Learners	3
ELSE 5083, Collaboration for Special Education Service Delivery	3
ELSE 5633, Literacy Assessment and Diagnosis of Exceptional Learners	3
ELSE 5653, Literacy and Language Development for Exceptional Learners	3
ELSE 6043, Strategies for Teaching Exceptional Learners in Content Areas	3
ELSE 6083, Culturally Responsive Teaching	3
ELSE 6013, Contemporary Issues and Research in Special Education	3
ELSE 6053, Advanced Methods of Teaching Students with Mild/Moderate Disabilities	3
ELSE 6073, Advanced Methods of Teaching Students with Significant Disabilities	3
ELSE 6163, Positive Behavior Interventions and Supports	3
ELSE 6193, Laboratory Experiences	3
Sub-total	36
Total Required Hours:	36

Graduate Certificate in Clinical Mental Health Counseling

The certificate is for individuals who are enrolled in the Clinical Mental Health Counseling Program or have earned a graduate degree in counseling or a closely related field. Specifically, the certificate program: (1) allows individuals currently working in mental health settings to upgrade their knowledge and skills related to working with clinical populations, (2) allows individuals who have earned a degree in counseling or a closely related field with fewer than the required minimum hours for professional counseling licensure to add the necessary hours, and/or (3) allow individuals with a license as a professional counselor to add one or more specialization licenses available through the Arkansas Board of Examiners in Counseling. To gain admission to this certificate program, applicants in Arkansas State University's graduate degree programs noted above must be a student in good standing with a minimum of a 3.0 GPA, have completed a minimum of 24 credit hours toward their primary degree, have successfully completed COUN 6203 Prepracticum and PSY 6113 Theories and Techniques of Counseling with a course grade of "B" or better, and have a recommendation from their primary academic advisor. Post graduate applicants must meet requirements for admission to the Ed.S. degree in Psychology and Counseling (Clinical Mental Health Counseling track).

Students in this certificate program will complete a minimum of 15 hours from among existing courses approved for credit toward the existing Specialist in Education degree with an emphasis in Clinical Mental Health Counseling. Hours completed in fulfillment of a prior degree cannot be counted toward certificate requirements. Other relevant coursework completed while pursuing a prior degree, but not counted toward a prior degree, might be counted toward certificate requirements with approval of the academic advisor. The basic curriculum for the certificate program is comprised of the courses required by the licensure board that typically are not required by any of the programs that are identified as feeders to this certificate program.

Clinical Mental Health Counseling

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
COUN 6023 Introduction to Clinical Mental Health Counseling	3
COUN 7463 Couples and Family Counseling	3
PSY 7533 Psychopathology	3
PSY 7633 Physiological Psychology and Psychopharmacology	3
Sub-total	12
Electives:	Sem. Hrs.
Electives are selected from courses approved for credit in the Specialist in Education degree in Psychology and Counseling Clinical Mental Health Counseling track as approved by the academic advisor based upon a student's individual needs and aspirations.	3
Total Required Hours:	15

NOTE: If a student has already received degree credit for courses named in the basic curriculum, the student's academic advisor may modify that curriculum by substituting other courses approved for credit in the Ed.S. degree in Psychology and Counseling (Clinical Mental Health Counseling track). Individual student needs may indicate the value of requiring more than 3 hours of elective coursework and clinical experiences, but the total submitted for the Certificate in Clinical Health Counseling should not exceed 24 hours.

Graduate Certificate in Dyslexia

This program has been designed to prepare licensed educators with the knowledge and skills necessary to add a dyslexia endorsement to the teaching license in the state of Arkansas. In 2013, the 89th General Assembly in the State of Arkansas passed Act 1294 mandating that all teacher education programs offered by state-supported institutions of higher education provide appropriate dyslexia information for educators regarding the identification of students at risk for dyslexia and related disorders. Also stipulated in the law was a mandate requiring public schools to provide dyslexia intervention services to eligible students by the 2016-2017 academic year and that these services would be provided by persons with the appropriate training needed to provide such services. As a result of these legal mandates, the licensure endorsement program was developed at Arkansas State University from existing courses, both didactic and practical, and with existing faculty to provide appropriate higher education experiences necessary to address the letter and intent of Act 1294.

The program of study will be delivered as graduate level university credit at Arkansas State University and is comprised of fifteen (15) hours of graduate credits. These five (5) courses constitute a collection of courses already being taught at Arkansas State University. The department of Teacher Education, contains expertise within its faculty to deliver the necessary instruction of appropriate knowledge and skills required by candidates seeking the dyslexia endorsement. The courses will collectively provide academic instruction of the knowledge base associated with the basic structure of language, the interaction between language and literacy, diagnostic principles and practices necessary for evaluating reading skills, multisensory approaches used to remediate reading deficits, and the legal mandates protecting the educational and civil rights of students receiving dyslexia services in public school environments. These courses will be sequenced to culminate in a capstone experience in which each candidate will complete an extensive clinical practicum.

Candidates seeking admission for the Graduate Certificate in Dyslexia must meet graduate admission requirements and specific program requirements.

ADMISSION REQUIREMENTS

Unconditional Admission: In addition to Graduate Admissions criteria, academic proficiency must be established through satisfaction of one of the following admissions selection criteria:

- A. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours), or a raw score of at least 380 on the Miller Analogies Test (MAT), or a minimum scaled score of 150 on the verbal reasoning section of the GRE and a minimum scaled score of 141 on the quantitative reasoning section of the GRE.
- B. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours), or a raw score of at least 388 on the MAT, or a minimum scaled score of 150 on the verbal reasoning section of the GRE and a minimum scaled score of 141 on the quantitative reasoning section of the GRE.
- C. A written agreement from a practicing teacher in reading/language arts who will function as your mentor during the program.
- D. Participation in an assessment of professional dispositions
- E. Completion of a partnership school agreement
- F. A passing score for the Praxis II, Principles of Learning and Teaching (PLT)- Choose ONE: test code 5622 - qualifying score of 160 or higher, 5623 – qualifying score of 160 or higher, OR 5624 – qualifying score of 157 or higher

Conditional Admission: In addition to Graduate Admissions criteria for conditional admission, academic proficiency must be established through satisfaction of the following admission selection criteria:

- A. A minimum cumulative undergraduate grade point average of 2.5 and a score of at least 368 on the MAT (or a minimum scaled score of 146 on the verbal reasoning section of the GRE and a minimum scaled score of 140 on the quantitative reasoning section of the GRE. Conditional admission may be granted to candidates for one semester to meet the GRE requirements.
- B. A written agreement from a practicing teacher in reading/language arts who will function as your mentor during the program.

- C. Participation in an assessment of professional dispositions
- D. Completion of a partnership school agreement
- E. A passing score for the Praxis II, Principles of Learning and Teaching (PLT)- Choose ONE: test code 5622 - qualifying score of 160 or higher, 5623 – qualifying score of 160 or higher, OR 5624 – qualifying score of 157 or higher

Conditional admission requires the student to earn a minimum grade of B or better in the first two classes of the graduate program.

Dyslexia Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
RDNG 6563, Principles of Literacy Cognition	3
RDNG 6533, Literacy for Diverse Learners	3
RDNG 6333, Reading Practicum I - Diagnosis and Intervention	3
RDNG 6513, Emergent Literacy Birth Through Primary Years	3
RDNG 6553, Adolescent Literacy	3
Sub-total	15
Total Required Hours:	15

Graduate Certificate in Building Level Administration

The Certificate in Building Level Administration is for individuals who already hold a graduate degree in an area other than educational leadership but who wish to become licensed as an educational leader and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must hold a minimum of a master's degree and meet the admissions requirements for the degree of Master of Science in Education – Educational Leadership.

Building Level Administration Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6033, Administration & Supervision of SpEd	3
ELAD 6053, Planning and Resource Allocation	3
ELAD 6073, School Law	3
ELAD 6203, Ethical Leadership	3
ELAD 6593, Supervised Internship	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision & Evaluation of Teaching	3
Sub-total	24
Total Required Hours:	24

Graduate Certificate in Curriculum Director

The Certificate in Curriculum Director is for individuals who already hold a graduate degree in an area other than educational leadership but who wish to become licensed as an educational leader and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must hold a minimum of a master's degree and meet the admissions requirements for the degree of Master of Science in Education – Educational Leadership.

Curriculum Director

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6203, Ethical Leadership	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision & Evaluation of Teaching	3
ELCI 6323, Elementary Curriculum	3
ELCI 6423, Middle School Curriculum	3
ELCI 6493, Curriculum Internship	3
ELCI 6523, Secondary School Curriculum	3
Sub-total	24
Total Required Hours:	24

Graduate Certificate in Gifted, Talented and Creative Director

The Certificate in Gifted, Talented & Creative Director is for individuals who already hold a graduate degree in an area other than educational leadership but who wish to become licensed as an educational leader and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must hold a minimum of a master's degree and meet the admissions requirements for the degree of Master of Science in Education – Educational Leadership.

Gifted, Talented and Creative Director

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6073, School Law	3
ELAD 6203, Ethical Leadership	3
ELCI 6063, Curriculum Management	3
ELCI 6083, Supervision & Evaluation of Teaching	3
ELCI 6493, Curriculum Internship	3
Sub-total	18
Total Required Hours:	18

Graduate Certificate in Instructional Specialist Gifted, Talented and Creative

The Certificate in Instructional Specialist – Gifted, Talented & Creative (GTC) is for individuals who already hold a teaching degree in an area other than GTC but who wish to become licensed as a GTC teacher and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must meet the admissions requirements for the degree of Master of Science in Education in Special Education – Gifted, Talented and Creative.

Instructional Specialist - Gifted, Talented and Creative

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELSE 5703, Identification, Nature, and Needs of the Gifted, Talented, and Creative	3
ELSE 5713, Educational Procedures and Materials for the Gifted, Talented, and Creative	3
ELSE 5723, Assessment or Programming for Gifted, Talented, and Creative	3
ELSE 6033, Affective Programming in the Classroom	3
ELSE 6433, Creativity	3
ELSE 6833, Practicum	3
Sub-total	18
Total Required Hours:	18

Graduate Certificate in Special Education K-12

The Certificate in Instructional Specialist – Special Education K-12 is for individuals who already hold a teaching degree in an area other than Special Education K-12 but who wish to become licensed as a Special Education K-12 teacher and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must meet the admissions requirements for the degree of Master of Science in Education in Special Education Instructional Specialist Grades K-12.

Special Education K-12

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELSE 5043, Assessment and Instruction for Exceptional Learners	3
ELSE 5633, Literacy Assessment and Diagnosis of Exceptional Learners	3
ELSE 5653, Literacy and Language Development for Exceptional Learners	3
ELSE 6053, Advanced Methods of Teaching Students with Mild/Moderate Disabilities	3
ELSE 6073, Advanced Methods of Teaching Students with Significant Disabilities	3
ELSE 6163, Positive Behavior Support & Intervention	3
ELSE 6193, Special Ed Lab Experience	3
Sub-total	21
Total Required Hours:	21

Graduate Certificate in Special Education Director

The Certificate in Special Education Director is for individuals who already hold a graduate degree in an area other than educational leadership but who wish to become licensed as an educational leader and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must hold a minimum of a master's degree and meet the admissions requirements for the degree of Master of Science in Education – Educational Leadership.

Special Education Director

Special Education Director Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELAD 6003, School & Community Relations	3
ELAD 6033, Administration & Supervision of SpEd	3
ELAD 6203, Ethical Leadership	3
ELAD 6423, Ethical and Legal Issues in Special Education	3
ELCI 6083, Supervision & Evaluation of Teaching	3
ELCI 6493, Curriculum Internship	3
Sub-total	18
Total Required Hours:	18

Graduate Certificate in Superintendent

The Certificate in Superintendent is for individuals who already hold a graduate degree in educational leadership but who wish to become licensed as a school superintendent and who do not wish to pursue an additional degree. To gain admission to this certificate program, applicants must hold a minimum of a master's degree and meet the admissions requirements for the degree of Specialist in Education – Educational Leadership: Superintendency track and have completed the following prerequisite courses:

- ELAD 7033 Contemporary Issues
- ELAD 7073 Schooling in a Pluralistic Society
- ELCI 7523 Curriculum Theory & Practice
- ELFN 7583 Evaluation of Educational Programs

Superintendent

Superintendent Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
ELAD 7013, School Personnel Administration	3
ELAD 7023, School Business Management	3
ELAD 7043, Management of Operational Systems	3
ELAD 7103, School District Administration	3
ELAD 7473, Field Study	3
ELAD 7493, Supervised Internship	3
Sub-total	18
Total Required Hours:	18

Graduate Certificate in Play Therapy

The certificate is for currently enrolled Clinical Mental Health Counseling students or individuals who already hold a graduate degree in counseling or a closely related field. Specifically, the certificate program allows individuals access to educational course work required by the Association for Play Therapy to obtain the Registered Play Therapist (RPT) credential. As part of gaining the Registered Play Therapist credential, licensed mental health professionals can also add a specialization license available through the Arkansas Board of Examiners in Counseling.

To gain admission to this certificate program, all applicants should submit an application packet to the Registrar's Office. Applicants in Arkansas State University's graduate degree programs noted above must be a student in good standing with a minimum of a 3.0 GPA, have successfully completed COUN 6203 Prepracticum, COUN 6213 Counseling Practicum, and PSY 6113 Theories and Techniques of Counseling with a course grade of "B" or better, and have a recommendation from their primary academic advisor. Post graduate applicants must hold an earned master's degree or higher in counseling or a closely related field from an accredited institution with a minimum 3.0 cumulative grade point average and a "B" or better in clinical courses. Post graduate applicants must submit three letters of recommendation, a written statement describing their career goals and reason for entering the program, curriculum vitae or resume, and official transcripts of all previous coursework.

Students in this certificate program will complete a minimum of 15 hours from among required courses. Hours completed in fulfillment of a prior degree cannot be counted toward certificate requirements.

Play Therapy

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
COUN 6103, Introduction to Play Therapy	3
COUN 6143, Expressive Arts in Counseling	3
COUN 6153, Advanced Play Therapy	3
COUN 6163, Child-Parent Relationship Therapy	3
COUN 6413, Practicum in Play Therapy	3
Sub-total	15
Total Required Hours:	15

Non-Degree Programs

ENDORSEMENT IN TEACHING GRADES 5 AND 6

The Arkansas Department of Education allows for teachers licensed in grades 7-12 to attain an endorsement in teaching grades 5 and 6. Those individuals who wish to attain this endorsement must hold a 7-12 license before beginning the endorsement process. Credentials to teach grades 5 and 6 are added to the 7-12 license. In order to gain the endorsement, students must complete the following three courses with an overall cumulative grade point of 3.000 (B) or better with no grade of less than a C.

Interested parties should contact the Department of Teacher Education for more information.

Endorsement in Teaching Grades 5 and 6

Required Courses:	Sem. Hrs.
MLED 6403, The World of the Young Adolescent	3
MLED 6413, Standards Based Instruction	3
MLED 6423, Teaming, Teaching, and Learning in the Mid-Level Education	3
Sub-total	9
Total Required Hours:	9

ADDITIONAL EARLY CHILDHOOD TEACHING ENDORSEMENT AREA FOR LICENSURE

The Arkansas Department of Education allows for teachers licensed in grades K-6 to attain an endorsement in teaching ages 3 and 4. Those individuals who wish to attain this endorsement must hold a K-6 license before beginning the endorsement process. Credentials to teach ages 3 and 4 are added to the K-6 license. In order to gain the endorsement, students must complete the following four courses with an overall cumulative grade point of 3.000 (B) or better with no grade of less than a C.

Interested parties should contact the Department of Teacher Education for more information.

As per Act 1063 of 2017, the Right to Read Act, Elementary licensure requires completing one of the Prescribed Pathways for Proficiency related to the scientific knowledge and practices in reading instruction. Documentation of this proficiency must be met using a prescribed pathway prior to applying for this endorsement area; documentation may be required at the point of application for the endorsement. Coursework toward the endorsement may be taken while working toward the license and/or proficiency.

Endorsement in Teaching Ages 3 and 4

Required Courses:	Sem. Hrs.
ECH 6423, Documenting Young Children's Learning and Development	3
ECH 6513, Developmental Perspectives	3
ECH 6533, Sources and Models of Early Childhood Curriculum	3
ECH 6583, Practicum in Early Childhood Education I	3
Sub-total	12
Total Required Hours:	12

Non-Degree Programs

ADULT EDUCATION CERTIFICATION

Students seeking Adult Education licensure should meet with an Adult Education advisor in the College of Education and Behavioral Science, Department of Educational Leadership, Curriculum and Special Education. A 12 hour program of study is required for Adult Certification if the person holds a valid Arkansas teacher's license. If a person does not hold a valid Arkansas teacher's license, an 18 hour program of study is required.

Adult Education Certification

Certification Requirements:	Sem. Hrs.
Select twelve (12) or eighteen (18) hours from the following: ELAE 5513, Introduction to Adult Education ELAE 5523, Psychology of the Adult ELAE 5533, Methods and Materials for the Adult Learner ELAE 5543, Teaching Reading to Adults ELAE 5553, Practicum in Adult Education ELAE 5563, Special Problems in Adult Education VOED 5503, Foundations of Adult Education in Vocational Education VOED 5583, Methods and Materials for Teaching the Adult VOED 6543, Administration and Supervision of Adult and Vocational Education	12-18
Total Required Hours:	12-18

Career Development Certification

Certification Requirements:	Sem. Hrs.
VOED 5513, Activities for Teaching Career and College Readiness	3
VOED 5533, Methods of Organizing and Teaching Career Development	3
Total Required Hours:	6

College of Engineering and Computer Science

Engineering Graduate Programs

ENGINEERING MISSION STATEMENT

The mission of the Engineering programs is:

- 1) to provide broadly based, inter- disciplinary graduate programs for engineering students to support the needs of existing businesses and industries and to promote state, regional and national economic development, and
- 2) to provide a means for bachelor's degree graduates in engineering to obtain additional college-level credits and/or a master's degree that may be required for professional licensure.

The goal is to provide an educational experience focusing on the knowledge and technical skills of advanced engineering and business management that will allow program graduates to be successful in engineering, manufacturing, and other high-tech organizations

Program of Study for the Master of Engineering Management Degree

The Master of Engineering Management (MEM) program, a one-year master's degree plan consisting of 30 semester credit hours, is designed for all engineers on management career paths as well as for those charged with managing technology in engineering, manufacturing, and other high-tech organizations. The MEM degree program will also benefit engineers pursuing licensure in states where candidates for professional licensure are required to have an additional 30 semester credit hours of coursework beyond the bachelor's degree or a master's degree in engineering. The curriculum consists of courses offered by the A-State College of Engineering and Computer Science.

Specific program outcomes are listed below. MEM program graduates will have:

- Graduates of the Master of Engineering Management program will be able to identify critical issues, formulate realistic solutions, evaluate alternatives, and solve technical problems.
- Graduates of the Master of Engineering Management program will be able to interpret statistical or deterministic models and concepts as well as apply them to technical problems.
- Graduates of the Master of Engineering Management program will be able to communicate effectively, both orally and in writing, to express alternatives and solutions dealing with technical problems.
- Graduates of the Master of Engineering Management program will be able to function effectively as a member or leader on a technical team.

MEM ADMISSION REQUIREMENTS

UNCONDITIONAL ADMISSION STATUS

To be granted unconditional admission status for the Masters Engineering Management Program, applicants must have met the following criteria:

1. Meet the minimum requirements for unconditional admission as set by the University.
2. Has passed Calculus I equivalent with a C or better.

CONDITIONAL ADMISSION STATUS

An applicant who fails to meet the GPA requirements for unconditional admission status, who lacks the appropriate undergraduate background for a particular certificate or degree program, or whose baccalaureate degree is from an unaccredited institution, may be granted conditional admission status.

ADMISSION TO A CERTIFICATE OR DEGREE PROGRAM:

In addition to meeting the minimum requirements of the University, an applicant for admission to a certificate, master's, specialist, or doctoral degree program also must meet departmental and/or program requirements. Applicants to a degree program must hold a baccalaureate or higher degree from an accredited four-year institution with the appropriate undergraduate background in the field of the proposed.

MEM DEGREE REQUIREMENTS

The number of semester credit hours for the master's degree is 30. Students are required to complete core courses (15 semester credit hours) and elective courses (15 semester credit hours). Students must take a minimum of 18 semester hours in courses numbered at the 6000 level.

Engineering Management

Master of Engineering Management

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
MEM Program Requirements:	
	Sem. Hrs.
EGRM 6003, Engineering Statistics	3
EGRM 6013, Quality Control and Improvement	3
EGRM 6053, Advanced Engineering Economy	3
EGRM 6083, Project Management for Engineers	3
EGRM 600V, Engineering Capstone	3
Select fifteen hours from following: EGRM 5023, Engineering Management I EGRM 6033, Engineering Management II EGRM 6043, Operations Management EGRM 6063, Engineering Law and Ethics EGRM 6073, Special Problems in Engineering Management EGRM 6093, Advanced Value Engineering EGRM 6103, Entrepreneurship for Engineers EGRM 6113, Engineering Finance and Budgeting EGRM 6123, Human Resource Management for Engineers EGRM 6133, Internship in Engineering EGRM 6143, Industrial Material Handling EGRM 6153, Advanced Facilities Management EGRM 6163, Advanced Logistics and Supply Chain	15
Sub-total	30
Total Required Hours:	30

Certificate of General Engineering Management

ADMISSION TO A CERTIFICATE OR DEGREE PROGRAM

In addition to meeting the minimum requirements of the University, an applicant for admission to a certificate, master's, specialist, or doctoral degree program also must meet departmental and/or program requirements. Applicants to a degree program must hold a baccalaureate or higher degree from an accredited four-year institution with the appropriate undergraduate background in the field of the proposed.

CERTIFICATE OF GENERAL ENGINEERING MANAGEMENT REQUIREMENTS

The number of semester credit hours for the Certificate of General Engineering Management is 12. Students will have to take courses within the Engineering Management Department. Students cannot take EGRM 600V, Engineering Capstone and EGRM 6133, Internship in Engineering.

General Engineering Management

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
Select twelve hours from following: EGRM 6003, Engineering Statistics EGRM 6013, Quality Control and Improvement EGRM 5023, Engineering Management I EGRM 6033, Engineering Management II EGRM 6063, Engineering Law and Ethics EGRM 6073, Special Problems in Engineering Management EGRM 6083, Project Management for Engineers EGRM 6093, Advanced Value Engineering EGRM 6103, Entrepreneurship for Engineers EGRM 6113, Engineering Finance and Budgeting EGRM 6123, Human Resource Management for Engineers EGRM 6143, Industrial Material Handling EGRM 6153, Advanced Facilities Management EGRM 6163, Advanced Logistics and Supply Chain	12
Sub-total	12
Total Required Hours:	12

Program of Study for the Master of Science in Engineering Degree

The Master of Science in Engineering (MSEngr) program provides an educational experience focusing on the integration of research and technology development that allows graduates to be successful in deriving solutions to society's most challenging technical problems. To achieve this goal, the program's objectives are to discover new scientific principles, apply novel engineering solutions, and develop cutting-edge technology toward achieving efficient and sustainable use of resources; to integrate cross-disciplinary research and teaching that produces engineering professionals equipped to take on the more complex problems that face our state and country; and to establish and grow industry-university partnerships that drive toward and prepare the region for a diverse, knowledge-based economy.

Specific program outcomes are listed below. MSEngr program graduates will have:

- A good understanding of statistical concepts and an ability to apply this knowledge to achieve engineering solutions that most efficiently use information and resources;
- A practical knowledge of fabrication and manufacturing techniques;
- An ability to apply advanced mathematical concepts to model physical systems and engineering processes to drive knowledge based design;
- An advanced, cross-disciplinary understanding of engineering sciences, and an ability to relate physical concepts from multiple engineering disciplines;
- An ability to identify critical issues, formulate realistic solutions, evaluate alternatives, and carry out independent research to provide novel solutions to technical problems; and
- A demonstrated ability to make novel, significant contributions to the scientific and engineering body of knowledge.

MSENGR ADMISSION REQUIREMENTS

Each applicant must have an undergraduate GPA of at least 2.75 on a 4.00 scale and a bachelor's degree in engineering. Applicants that do not have a bachelor's degree in engineering, for example those having a bachelor's degree in physics, or those having an undergraduate GPA below 2.75, will be considered on a case-by-case basis and must show equivalent experience and training and have completed the required pre-requisites for the courses. Applicants must present Graduate Record Examination (GRE) scores for the Verbal, Quantitative, and Analytical tests. The minimum combined Verbal and Quantitative reasoning scores must be 300 for the revised GRE test or equivalent scores for general GRE. Applicant not having completed GRE scores may be admitted conditionally, but must complete this requirement prior to finishing the first semester of course work. Applications submitted throughout the year for the following semester and in accordance to Graduate Admissions deadlines will be considered based on qualification and space availability. All application materials must be received by the College of Engineering and Computer Science during the semester prior to the student's official enrollment in A-State courses. Official transcripts, two letters of recommendation, a resume, and a statement of purpose not exceeding three pages are also required for admission. International students require additional proof of English proficiency to meet the admission requirements of Graduate Programs.

ACCELERATED MASTERS PROGRAM

Undergraduate students seeking admission into the Accelerated Master of Science in Engineering program must meet the admission requirements of Graduate Admissions. In addition, applicants must be enrolled in one of the following undergraduate engineering degrees: Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, or Bachelor of Science in Mechanical Engineering.

MSENGR APPLICATION DEADLINES

Application deadline is April 1st each year to begin study in the Fall semester and October 1st each year to begin study in the Spring semester. Applications are not accepted for Summer admissions.

MSENGR DEGREE REQUIREMENTS

The number of semester credit hours for the M.S.E. degree is 30. Students are required to complete two core courses (ENGR 6023, 6043) for 6 semester credit hours, a minimum of three 6000 level graduate engineering elective courses for 9 credit hours, two additional approved graduate elective courses for 6 credit hours, one research course (ENGR 6693) for 3 credit hours, and two semesters of thesis research for 6 credit hours. The MSE curriculum is structured as a two-year program (four semesters).

Engineering

Master of Science in Engineering

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ENGR 6023, Advanced Engineering Math	3
ENGR 6043, Applied Probability and Estimation	3
ENGR 6693, Engineering Research	3
ENGR 689V, Thesis	6
6000-Level Engineering Electives	9
Sub-total	24
Electives:	
	Sem. Hrs.
Approved Electives	6
Total Required Hours:	30

Engineering

Master of Science in Engineering Emphasis in Civil Engineering

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
ENGR 6023, Advanced Engineering Math	3
ENGR 6043, Applied Probability and Estimation	3
ENGR 6693, Engineering Research	3
ENGR 689V, Thesis	6
6000-Level Engineering Electives	6
Sub-total	21
Electives:	Sem. Hrs.
Approved-6000 Level Civil Engineering Electives	3
Approved Civil Engineering Electives	6
Sub-total	9
Total Required Hours:	30

Engineering

Master of Science in Engineering Emphasis in Electrical Engineering

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
ENGR 6023, Advanced Engineering Math	3
ENGR 6043, Applied Probability and Estimation	3
ENGR 6693, Engineering Research	3
ENGR 689V, Thesis	6
6000-Level Engineering Electives	6
Sub-total	21
Electives:	Sem. Hrs.
Approved-6000 Level Electrical Engineering Electives	3
Approved Electrical Engineering Electives	6
Sub-total	9
Total Required Hours:	30

Engineering

Master of Science in Engineering Emphasis in Mechanical Engineering

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ENGR 6023, Advanced Engineering Math	3
ENGR 6043, Applied Probability and Estimation	3
ENGR 6693, Engineering Research	3
ENGR 689V, Thesis	6
6000-Level Engineering Electives	6
Sub-total	21
Electives:	
	Sem. Hrs.
Approved-6000 Level Mechanical Engineering Electives	3
Approved Mechanical Engineering Electives	6
Sub-total	9
Total Required Hours:	30

Program of Study for the Master of Science in Computer Science

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science degree program in Computer Science must meet the admission requirements of Graduate Admissions. In addition, applicants will be evaluated by the department for academic qualification based upon the following requirements:

1. A minimum of 18 undergraduate hours in Computer Science and an undergraduate grade point of 3.00 or greater on a 4.0 scale.
2. A minimum Graduate Record Exam (GRE) combined verbal and quantitative score of 290.
3. Three letters of reference.
4. A statement of educational objectives and career goals.

Applicants not meeting all of the above departmental criteria may be admitted on a conditional basis if they meet Graduate Admissions admission requirements. Upon arrival, all students will be given an assessment exam to determine proficiency in basic topics in Computer Science. Students judged to be deficient in some areas of undergraduate preparation shall be required to complete certain undergraduate prerequisite courses as determined by department faculty. Students may not take 6000-level courses for credit until all undergraduate course deficiencies have been completed.

ACCELERATED MASTERS PROGRAM

Undergraduate students seeking admission into the Accelerated Masters Program in Computer Science must meet the admission requirements of Graduate Admissions. In addition, applicants will be evaluated by the department for academic qualification based upon the following requirements:

1. minimum overall GPA of 3.00
2. minimum GPA of 3.25 in CS courses (exclusive of CS 1013 and 1114)
3. completion of CS 3113

Applicants not meeting all of the above departmental criteria may be admitted on a conditional basis if they meet Graduate Admissions admission requirements. After admission into the accelerated masters program, undergraduate students may take up to 9 hours of 5000-level coursework as part of the Accelerated Masters Program.

SATISFACTORY PROGRESS

Students are required to maintain a "B" average in all graduate coursework in Computer Science and approved Mathematics/Statistics courses. A student who receives two "C"s in graduate courses in one semester or receives a "C" while on probation will be terminated from the program. A student who receives one "F" will be removed from the program.

Computer Science

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: Minimum of eighteen hours of 6000 level Computer Science and approved Mathematics and/or Statistics coursework inclusive of thesis. Students completing the MS non-thesis option must pass a comprehensive exam in the last semester of study.	Sem. Hrs.
Theory: CS 5133, Compiler OR CS 5723, Automata Theory	3
Systems (select one of the following): CS 5313, Computer Networks CS 6213, Parallel Processing CS 6243, Distributed Systems CS 6253, Heterogeneous Computing	3
Algorithms: CS 5713, Analysis of Algorithms	3
Computer Science Electives	18
Computer Science, Mathematics, and/or Statistics Electives, <i>Subject to the prior approval of the Computer Science Curriculum Committee.</i>	6
Sub-total	33
Total Required Hours:	33

Computer Science

Master of Science Emphasis in Cyber Security

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: Minimum of eighteen hours of 6000 level Computer Science and approved Mathematics and/or Statistics coursework inclusive of thesis. Students completing the MS non-thesis option must pass a comprehensive exam in the last semester of study.	Sem. Hrs.
Theory: CS 5133, Compiler OR CS 5723, Automata Theory	3
Systems (select one of the following): CS 5313, Computer Networks CS 6213, Parallel Processing CS 6243, Distributed Systems CS 6253, Heterogeneous Computing	3
Algorithms: CS 5713, Analysis of Algorithms	3
Sub-total	9
Emphasis Area (Cyber Security):	
Core (select three of the following): CS 6123, Software Security CS 6313, Data Security CS 6323, Computer Security CS 6333, Network and Internet Security	9
Emphasis Elective (select one of the following): CS 6123, Software Security CS 6343, Cloud Security LAW 6033, Cyberlaw and E-Commerce	3
CS Electives	6
CS, MATH, and/or STAT Electives, <i>Subject to the prior approval of the Computer Science Curriculum Committee.</i>	6
Sub-total	24
Total Required Hours:	33

Computer Science

Master of Science Emphasis in Data Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: Minimum of eighteen hours of 6000 level Computer Science and approved Mathematics and/or Statistics coursework inclusive of thesis. Students completing the MS non-thesis option must pass a comprehensive exam in the last semester of study.	Sem. Hrs.
Theory: CS 5133, Compiler OR CS 5723, Automata Theory	3
Systems (select one of the following): CS 5313, Computer Networks CS 6213, Parallel Processing CS 6243, Distributed Systems CS 6253, Heterogeneous Computing	3
Algorithms: CS 5713, Analysis of Algorithms	3
Sub-total	9
Emphasis Area (Data Science):	Sem. Hrs.
Core (select three of the following): CS 5543, Database Systems CS 5623, Fundamentals of Data Science CS 6443, Machine Learning CS 6253, Data Mining Techniques	9
Emphasis Elective (select one of the following): CS 6443, Machine Learning CS 6543, Advanced Database Systems STAT 6433, Time Series Analysis STAT 6643, Multivariate Analysis STAT 6653, Data Analysis I: Regression Analysis STAT 6663, Data Analysis II: Analysis of Variance	3
CS Electives	6
CS, MATH, and/or STAT Electives, <i>Subject to the prior approval of the Computer Science Curriculum Committee.</i>	6
Sub-total	24
Total Required Hours:	33

Computer Science

Master of Science Emphasis in High Performance Computing

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: Minimum of eighteen hours of 6000 level Computer Science and approved Mathematics and/or Statistics coursework inclusive of thesis. Students completing the MS non-thesis option must pass a comprehensive exam in the last semester of study.	Sem. Hrs.
Theory: CS 5133, Compiler OR CS 5723, Automata Theory	3
Systems: CS 5313, Computer Networks	3
Algorithms: CS 5713, Analysis of Algorithms	3
Sub-total	9
Emphasis Area (High Performance Computing):	Sem. Hrs.
Core (select three of the following): CS 6213, Parallel Processing CS 6243, Distributed Systems CS 6253, Heterogeneous Computing CS 6263, Cloud Computing	9
Emphasis Elective (select one of the following): CS 5223, Unix Systems Programming CS 6223, Advanced Computer Architecture CS 6233, Operating System Design CS 6263, Cloud Computing	3
CS Electives	6
CS, MATH, and/or STAT Electives, <i>Subject to the prior approval of the Computer Science Curriculum Committee.</i>	6
Sub-total	24
Total Required Hours:	33

Program of Study for the Master of Science in Education Degree in Computer Science Education

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Computer Science Education must meet the admission requirements of Graduate Admissions and the specific program requirements. In addition, applicants must have completed a minimum of 18 hours of professional education courses including the requirements for a valid teaching certificate based on a four-year teacher education program. Applicants who do not meet the requirements for a valid teaching certificate based on a four-year teacher education program will be required to complete the undergraduate courses required for such a certificate. These courses may be completed concurrently with the graduate work, but must be completed before the degree is awarded. (This program does not lead to licensure.)

For unconditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

- A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours) or a minimum score of 300 on the combined verbal and quantitative sections of the Graduate Record Examination (GRE).

For conditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

- A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours) and a minimum score of 295 on the combined verbal and quantitative sections of the GRE.

Computer Science Education

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
CSED 5043, Principles of Computer Programming	3
CSED 5731, Principles of Abstract Structures	1
CSED 5231, Principles of Operating Systems	1
CSED 5241, Principles of Computer Organization	1
CSED 6113, Principles of Software Engineering	3
CSED 6713, Principles of Analysis of Algorithms	3
CSED 6723, Principles of Automata Theory	3
CS Electives (select two of the following): CS 5223, UNIX Systems Programming CS 5313, Computer Networks CS 5543, Database Systems	6
Sub-total	21
Professional Education Core Courses:	
	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6063, Curriculum Management ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELFN 6763, Philosophies of Education (<i>if not taken previously</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken previously</i>)	3
Sub-total	9
Total Required Hours:	30

Graduate Certificate in Computer Science Education

Computer Science Education

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
CSED 5043, Principles of Computer Programming	3
CSED 5731, Principles of Abstract Structures	1
CSED 5231, Principles of Operating Systems	1
CSED 5241, Principles of Computer Organization	1
Sub-total	9
Electives:	Sem. Hrs.
Select six hours from the following: CS 5223, UNIX Systems Programming CS 5313, Computer Networks CS 5543, Database Systems	6
Total Required Hours:	15

Graduate Certificate in Cyber Security

Cyber Security

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
CS 6313, Data Security	3
CS 6323, Computer Security	3
CS 6333, Network and Internet Security	3
Sub-total	9
Electives:	Sem. Hrs.
Select six hours from the following: CS 6123, Software Security CS 6343, Cloud Security LAW 6033, Cyberlaw and E-Commerce	6
Total Required Hours:	15

Graduate Certificate in Data Science

Data Science

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
CS 5543, Database Systems	3
CS 5623, Fundamentals of Data Science	3
CS 6523, Data Mining Techniques	3
Sub-total	9
Electives:	Sem. Hrs.
Select six hours from the following: CS 6443, Machine Learning CS 6543, Advanced Database Systems STAT 6433, Time Series Analysis STAT 6643, Multivariate Analysis STAT 6653, Data Analysis I: Regression Analysis STAT 6663, Data Analysis II: Analysis of Variance (ANOVA)	6
Total Required Hours:	15

Graduate Certificate in High Performance Computing

High Performance Computing

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
CS 6213, Parallel Processing	3
CS 6253, Heterogeneous Computing	3
CS 6243, Distributed Systems	3
Sub-total	9
Electives:	Sem. Hrs.
Select six hours from the following: CS 5223, Unix Systems Programming CS 6223, Advanced Computer Architecture CS 6233, Operating System Design CS 6263, Cloud Computing	6
Total Required Hours:	15

College of Liberal Arts and Communication

MISSION STATEMENT

The College of Liberal Arts and Communication provides innovative educational opportunities that will enable lifelong learning, professional leadership, and engaged lives.

The College participates in an interdisciplinary program of study leading to the Graduate Certificate in Health Communication and also in various graduate programs in three areas: Music, Media and Communication, and Humanities and Social Sciences, as described below.

Music: Graduate classes leading to the Master of Music Education Degree and the Master of Music - Performance Degree are offered, designed to elevate the student's standards of performance and scholarship. The Department of Music requires auditions and examinations prior to or soon after the first registration for graduate study. These examinations may be used as placement and/or entrance criteria. Final project requirements for the Master of Music Education Degree include passing written and/or aural comprehensive examinations in music history, theory and music education; for the Master of Music - Performance Degree written and/or aural comprehensive examinations in music theory and music history must be passed. Master of Music - Performance Degree candidates in voice must present or achieve proficiency in two foreign languages and keyboard candidates in one. All general Graduate Program requirements listed elsewhere in the bulletin are applicable to these degree programs. Specific program requirements must also be met; see the Department of Music Student Handbook for details.

Media and Communication: The School of Media and Journalism offers work leading to a Master of Science in Mass Communications and a totally online Master of Science in Media Management.

Students must have a 3.00 GPA in all graduate coursework taken in the School of Media and Journalism and have completed 18 hours of course work 1) to qualify to take the Comprehensive Examination and 2) to meet graduation requirements. Students in the online Master of Science in Media Management degree will complete a capstone course in lieu of taking the Comprehensive Examination.

The Department of Communication offers a Master of Arts in Communication Studies in person and online and a totally online Master of Science in Strategic Communication. Students must complete a thesis or pass Comprehensive Examinations to meet requirements for the MA in Communication Studies. Students must have at least a 3.0 GPA in all graduate coursework taken in the Department of Communication and completed at least 18 hours of graduate course work to qualify to take Comprehensive Examinations. Students in the online Master of Science in Strategic Communication degree will complete a capstone course in lieu of taking the Comprehensive Examination.

All general Graduate Program requirements listed elsewhere in the bulletin are applicable to these degree programs and the specific program requirements must be met.

Humanities and Social Sciences: Courses leading to the Master of Arts degree with majors in English, history, political science, sociology, criminal justice, and to the Master of Public Administration degree are offered through the College of Liberal Arts and Communication.

The College of Liberal Arts and Communication coordinates programs of research and study leading to the Doctor of Philosophy in Heritage Studies. Designed for those interested in public sector work in museums, archives, folk arts centers, historical societies, and similar agencies, the Heritage Studies program is interdisciplinary. It involves faculty from several departments and colleges at Arkansas State University.

The Master of Arts programs have been planned for flexibility and offer courses of general cultural and educational value. They are designed not only to provide knowledge in special fields but also to enhance professional qualifications for careers in teaching, law, writing, and governmental service, to provide a humanistic foundation for most other careers, and to prepare students for more advanced work at other institutions of higher learning.

The Master of Public Administration degree program provides a course of study for students who wish to serve in various levels of local, state, and national government, in nonprofit organizations, and in international public management.

The graduate programs leading to the Master of Science in Education degree are designed for graduates who plan careers in secondary school teaching. Twenty-one hours of major field courses and nine hours of professional education courses are required.

The Graduate Certificate in History offers 18 credit hours for those who wish to meet state and HLC qualifications for teaching History at the college level and/or concurrent courses in Arkansas high schools.

All general requirements of Graduate Programs are applicable to these degree programs. The student should refer to the specific program requirements which are listed elsewhere in this bulletin.

Program of Study for the Doctor of Philosophy in Heritage Studies Degree

This interdisciplinary Ph.D. program educates students for advanced careers in the heritage professions. Policies and requirements are shown below and in the section of this Bulletin entitled "Program of Study for the Doctor of Philosophy Degree in Heritage Studies" in the College of Liberal Arts and Communication. Applicants are advised that admission to Graduate Programs does not imply admission to the Heritage Studies Ph.D. Program.

The mission of the doctoral program in Heritage Studies is to produce heritage professionals with the knowledge and skills needed to support the identification, assessment, preservation, interpretation, management and promotion of historic and cultural resources for non-specialist or "public" audiences. Our program is interdisciplinary, using multiple perspectives to explore and understand the interrelationships of history, culture, and geography in distinctive regions, such as the Mississippi River Delta and in other regions of the United States and the world. The concept of region is central to the Heritage Studies degree. Through case study of a region, the Mississippi River Delta, our students gain an understanding of cultural resource management and interpretation that is applicable in other settings.

While universal in scope and method, the Heritage Studies doctoral program uses the distinctive history, attributes, resources, and interests of the Mississippi River Delta as a laboratory. Our students study regional history, anthropology, archaeology, folklore, regional and ethnic literature, and the social sciences. Students develop and refine the traditional doctoral-level research skills, but as heritage professionals their expertise will be applied, practical, and public dissemination of history and culture.

Employment opportunities include senior executive staff positions in cultural and historical agencies, parks and cultural tourist sites, historical societies, museums, archives, federal, state, and local public and nonprofit agencies, and private consulting firms. This degree is not primarily designed for college and university teaching, although students may be qualified to do so.

MASTER OF ARTS DEGREE WITH A MAJOR IN HERITAGE STUDIES

Only students admitted to the Ph.D. program in Heritage Studies will be eligible for the Master of Arts (MA) in Heritage Studies. This MA degree is granted "en route" to the Ph.D. To receive this master's degree, the doctoral student must complete the requirements in core courses (12 semester credit hours minimum), specialty area (12 semester credit hours minimum), and enrichment (12 semester credit hours minimum), and the capstone research seminar (3 semester credit hours). This capstone seminar is the culmination of a student's class work and will result in an intensive research paper that demonstrates the student's comprehensive understanding of Heritage Studies when focused on a specific topic. The research paper from this course is the equivalent of a written exam for the MA degree in Heritage Studies. All requirements for approval of credit in core courses, specialty area, and enrichment that apply for the Ph.D. program also apply for a doctoral student who requests the MA in Heritage Studies.

ADMISSION REQUIREMENTS

Students seeking admission into the Doctor of Philosophy in Heritage Studies program must meet the admission requirements of Graduate Programs and the specific program requirements.

Applicants to the Doctor of Philosophy in Heritage Studies program must hold a baccalaureate or master's degree (BA, BS, MA, or MS) from an accredited institution in a related field of study such as archaeology, anthropology, English, folklore, geography, history, historic preservation, museum studies, political science, public administration, or sociology. Applicants admitted to the program without a master's degree will be required to complete a minimum of 18 hours of graduate work before they will be allowed to take 7000 level courses. Only in rare cases will applicants be admitted who have not completed an appropriate master's degree before they begin their doctoral studies.

Transcripts should reflect a strong background in social sciences and humanities. Applicants lacking this background who are otherwise exemplary may be granted provisional admission to the program, but will be required to make up these deficiencies. These course credits cannot be applied toward fulfillment of doctoral requirements. Up to eighteen hours in addition to the semester hours of credit required for the Ph.D. in Heritage Studies may be necessary in graduate classes that provide a

suitable foundation for doctoral work in Heritage Studies. In some cases, documented work experience in the Heritage professions may be substituted for specific preparatory courses and, in exceptional cases, may be used as a criterion for admission.

In addition to application materials required by Graduate Admissions, applicants to the Doctor of Philosophy in Heritage Studies program must submit a letter explaining their interests in Heritage Studies and personal career goals. The Heritage Studies Admissions Committee will carefully review this statement and three letters of reference from former professors or professionally based supervisors or peers as well as the applicant's undergraduate and graduate transcripts. All applicants also are required to submit an example of research and writing on a scholarly topic and to have an interview with the director or associate director of the Ph.D. program.

Applicants must submit the following to Graduate Admissions:

1. A completed application for admission to the Ph.D. in Heritage Studies program. Applicants are encouraged to submit the application no later than January 15. Review of applications will begin January 15 for the fall semester.
2. A \$50 nonrefundable application fee. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate Admissions will hold all application materials and notify the applicants that no action will be taken until payment is received. International students may utilize a check or an International Postal Money Order to remit payment in U.S. currency.
3. One copy of official transcripts of all previous undergraduate and graduate coursework attempted, to be sent directly from the institutions(s) previously attended. Graduate Admissions will compute the graduate GPA by counting all graduate courses completed, including any repeated courses. Transcripts should reflect a strong background in social sciences and humanities. Applicants who are lacking this background who are otherwise exemplary may be granted provisional admission and required to make up these deficiencies. Such course credits may not be applied toward fulfillment of doctoral requirements.
4. Letter explaining applicant's career goals and knowledge of and interest in Heritage Studies.
5. Three (3) letters of reference from former professors or professional supervisors.
6. International student applicants must demonstrate a satisfactory level of proficiency in the English language if English is not their native language.

Applicants will be admitted to the program based on the following criteria:

- A letter explaining interest in Heritage Studies and personal career goals.
- Undergraduate and graduate GPA
- Three (3) letters of reference
- Interview with Heritage Studies' Admissions Committee (may be required).
- Example of research and writing on a scholarly topic
- Interview with the director or associate director of the Ph.D. program

PRACTICUM

Students must complete 300 work hours as a quasi-professional in a culture, heritage, or public history environment. After completion of this work experience, students will provide a written assessment of the Practicum. At the discretion of the doctoral advisory committee, adjustments may be made for students with extensive professional experience in public heritage programs.

QUALIFYING AND CANDIDACY EXAMS

After completion of the curriculum and the practicum, the doctoral advisory committee will schedule a qualifying examination of the student's work in the doctoral program.

Successful completion of this qualifying examination will allow the committee to schedule a candidacy exam. The format of the qualifying and candidacy exams for all students is established by the Heritage Studies Program Committee. Successful completion of the candidacy exam which includes approval of a dissertation proposal allows the student to be formally recognized as a candidate for the Doctor of Philosophy in Heritage Studies.

GENERAL REQUIREMENTS FOR THE DEGREE

Doctoral students are required to complete a minimum of 57 semester hours beyond the master's degree. For students without a master's degree, the Doctoral Advisory Committee and the Heritage Studies Ph.D. Program Committee, on a case-by-case basis, may require additional hours of credit beyond the minimum of eighteen semester hours indicated below. No more than nine credits earned while completing a master's degree may be applied toward the 57 credit requirement unless approved by the Heritage Studies Ph.D. Program Committee at the request of the student's Doctoral Advisory Committee. Applicants admitted to the program without a master's degree will be required to have completed a minimum of eighteen hours of graduate work before they will be allowed to take level 7000 courses. These eighteen hours are in addition to the 57 semester hours of credit required for the Ph.D. in Heritage Studies. If a student completed a portion of these eighteen hours before admission to the Ph.D. program, up to nine semester hours of those graduate level courses may be applied as Transfer Credit (see below). In some cases, documented work experience in the Heritage professions may be substituted for specific courses.

ADVISORY COMMITTEES

It is the responsibility of the Doctoral Advisory Committee to work with a student to develop a specific course of study. Each student is expected to initiate this process by identifying a doctoral dissertation advisor who will chair the advisory committee. The members of Doctoral Advisory Committees must be drawn from Arkansas State University graduate faculty. Each committee must have at least three members. No more than two members may represent the same academic discipline. Committee membership is subject to the approval of the Heritage Studies Ph.D. Program Committee.

The Director of the Heritage Studies Ph.D. Program will serve as the initial advisor for students entering the program. In this capacity, the Director will institute a tentative curriculum for the student pending establishment of the Doctoral Advisory Committee. Before beginning the final year of course work or no later than after the completion of 30 semester credit hours of study, the student in consultation with the Director is expected to have selected a dissertation advisor, formed a Doctoral Advisory Committee, and declared a course of study.

The course of study set by the committee must meet program requirements and match the student's academic goals, scholarly aspirations and career preparation needs. Each Doctoral Advisory Committee will meet at least once a year to review the student's progress.

The committee is to review the student's dissertation proposal and to provide guidance toward the successful completion of this substantial project. Once the student has passed the Qualifying and Candidacy Exams and has an approved dissertation topic, the Doctoral Advisory Committee may add new members to help with directing and assessing the dissertation work. In these cases, it is strongly recommended that at least one new member of the Doctoral Advisory Committee be an individual of national repute with extensive professional experience at an appropriate public program in cultural heritage.

Membership of advisory committees may be changed if either the student or a member of the committee feels that such a change is appropriate. The requested change must be reviewed and approved by Director of the Heritage Studies Ph.D. Program and then approved by the Program Committee.

DEGREE PLAN

A course of study, to be developed by the student and approved by the student's Doctoral Advisory Committee, is to be submitted to the Director of the Heritage Studies Ph.D. Program before the end of the first 12 months after beginning the program full time, or before completing 18 semester credit hours of study.

As a reflection of the interdisciplinary nature of the program, each student is expected to develop a course of study tailored to his or her own scholarly interests, research program, and proposed career direction. The specific quantity and content of each student's course of study will be worked out with that student's Advisor and the Doctoral Advisory Committee within the parameters set forth for the program as a whole.

LEVEL OF WORK REQUIRED

Fifty-seven (57) semester credit hours are required for completion of this program. Only in the most exceptional cases will any class that is not designated a master's or doctoral-level (5000 and above at Arkansas State) be accepted. These exceptions must be approved by the Doctoral Advisory Committee, the Program Director, and the Program Committee. Doctoral Advisory Committees also will take great care when approving any course at the 5000 level. Special justification will be needed for such courses and typically no more than six semester hours of 5000 level course work will be approved for a student's program of study. With permission of the professor, advanced master's level students may enroll in doctoral level Heritage Studies classes.

TRANSFER CREDIT

No more than nine master's level credit hours earned before admission to the Heritage Studies Ph.D. Program may be applied toward the 57-credit-hour requirements unless requested by the student's Doctoral Advisory Committee and approved by the Heritage Studies Ph.D. Program Committee. Decisions regarding acceptability of transfer credits are to be made by the Program Committee, upon recommendation from a student's Doctoral Advisory Committee, within the context of that student's course of study and subject to approval by the Registrar. Students will be held responsible on the qualifying and candidacy exams for the content of all courses within their course of study.

GRADES AND CREDIT

Courses completed during prior master's work must have received a grade of B or better to be credited towards the degree. A single grade of C will be accepted for courses in the Ph.D. program. A second instance of a grade of C or a single instance of a grade below C will be cause for the review of the student's status within the program by the Heritage Studies Program Committee. After such review, the Heritage Studies Program Committee may recommend dismissal of the student from the program.

QUALIFYING AND CANDIDACY EXAMS

After completion of the curriculum and the practicum, including the capstone Research Seminar, the Doctoral Advisory Committee will schedule a qualifying examination of the student's work in the doctoral program. Successful completion of this qualifying examination will allow the committee to schedule a candidacy exam. The format of the qualifying and candidacy exams for all students is established by the Heritage Studies Program Committee. Successful completion of the candidacy exam which includes approval of a dissertation proposal allows the student to be formally recognized as a candidate for the Doctor of Philosophy in Heritage Studies.

The qualifying and candidacy examinations are designed to test general knowledge of Heritage Studies as well as the student's expertise in specialized areas of research and interest. Students are expected to successfully complete each exam in the first full semester following completion of all course work in the course of study. These exams have a mandatory oral component. In advance of each oral exam, a student prepares a portfolio. Exams will be administered no later than one week before the close of fall and spring semesters. Students intending to take qualifying and candidacy exams must submit an intent form to the office of the program director no later than the end of the sixth week after the beginning of classes in the semester in which they intend to take the exam.

Each student will create a Portfolio before each exam that will be examined by the Doctoral Advisory Committee which also will serve as the examination committee. The Portfolio must be available to the committee two weeks before the scheduled exam. The exam itself will consist of an oral interview of no more than one hour for the qualifying exam and no more than two hours for the candidacy exam. At each exam the student will explain and defend what is in the Portfolio.

The Portfolio for the Qualifying Exam will contain:

- A major example of the student's work from EACH of the three divisions of the doctoral curriculum (the core, specialty area, and enrichment). These THREE EXAMPLES from the student's course work are improved and enhanced before they are placed in the portfolio. The first example will be drawn from one of the required core seminars. The second example of enrichment may come from any class in the Heritage Studies program, other than a core seminar or the capstone research

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seminar, that demonstrates breadth and depth in terms of the student's studies. The third example will be the research paper from the capstone research seminar (HS 7213). It is required as the representation of the specialty area and as a significant example of the student's writing.

The Portfolio for the Candidacy Exam will contain:

- A meaningful essay of no more than twelve-hundred (1,200) words that gives the student's scholarly and intellectual explanation of what is "Heritage Studies" accompanied by an extensively annotated list that will contain 20 sources, at least 10 of which must be books. The list may also include important articles, films, archives, festivals, museums or other substantial examples that are vital for the interpretation of "Heritage Studies".
- A written report that assesses the student's 300-hour Practicum accompanied by a letter from the supervisor, or coordinator, of the Practicum.
- The final version of the student's dissertation proposal.

The oral component for the qualifying and candidacy exams are conducted by the student's Doctoral Advisory Committee. In case of failure, the exam may be retaken if the committee feels that improvements in the Portfolio are justified and can be carried out by the student within an additional period of time as specified by the committee. A second failure of either the qualifying or candidacy exam will result in dismissal from the program. Students may not undertake the candidacy exam until after they have successfully completed the qualifying exam.

ADMISSION TO CANDIDACY

A student may apply for admission to candidacy upon successful completion of the oral component of the comprehensive candidacy examination.

CONTINUOUS ENROLLMENT

Prior to the completion of the candidacy exam, any leave from the program of six months or less must be approved by the Program Director. Any leave of six months or longer must be approved by the Director and the Program Committee. Students who have taken leave from the program for more than two years, at the determination of the Director and Program Committee, may be required to apply formally for readmission and to update specific courses.

Students must maintain continuous enrollment subsequent to passing the candidacy examination. They must maintain a minimum of one semester hour of dissertation credit during each regular semester, including at least one summer term each year, until the dissertation has been accepted.

TIME TO DEGREE

All requirements for the degree must be completed within eight calendar years of admission to the program. Requirements subsequent to the candidacy examination must be completed within four calendar years of the date of successful completion of that examination. Students exceeding the time limit may be required to repeat the candidacy exam, replace out-of-date credits with up-to-date ones, and/or show other evidence of being current within both the core curriculum and the student's area of specialization. Extension of the eight-year requirement will be granted only if a student has obtained prior approval from his or her Doctoral Advisory Committee, the Heritage Studies Program Committee and Arkansas State University Graduate Programs.

APPROVAL OF DISSERTATION RESEARCH

The student's Doctoral Advisory Committee must approve the dissertation proposal at the Candidacy Exam. As the student progresses in completing the dissertation, minor modifications of the proposal may be approved by the chair of the student's Doctoral Advisory Committee who is also the director for the dissertation itself. Any major changes in the dissertation proposal require the approval of the on-campus members of the expanded Doctoral Advisory Committee. Students are also advised to seek the appropriate institutional approval of proposed research, as necessary, from the Institutional Review Board.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

DISSERTATION DEFENSE

After the research is completed the student will submit a draft to his or her advisory committee. Upon the recommendation of the committee, the candidate will arrange with the chair of his or her advisory committee to schedule and conduct an open, public presentation of the results to which members of the faculty and master's and doctoral students will be invited. In advance of this public presentation, the candidate will also be required to orally defend the dissertation before the expanded Doctoral Advisory Committee including any new members from outside Arkansas State University such as cultural heritage professionals. Arrangements for the public presentation and dissertation defense will be made through the Heritage Studies Program Office. Students are advised to be aware of the deadlines set by Graduate Programs for submission of defense results and dissertations.

The defense must occur at least four weeks before the date of graduation. The defense is failed if more than one negative vote is cast by the members of the Doctoral Advisory Committee who are members of the Arkansas State University graduate faculty. In this case the student is placed on probation. A student who fails the defense must wait at least one semester before attempting a second defense of the dissertation. A second public presentation will not be required. If a repeat defense is failed, the Doctoral Advisory Committee will recommend the student's removal from Ph.D. candidacy standing.

FINAL FORM

The completed dissertation may consist of several elements, such as a museum exhibition curated by the student or a video documentary. Nonetheless, all dissertations will include an extensive written statement that places the dissertation in its scholarly, intellectual context as a representation of heritage studies. Other important parts of the dissertation project may be written as well and a completed dissertation may include extensive appendices. The written component of the dissertation will follow the style and format requirements from the most recent edition of the Chicago Manual of Style unless an alternate scholarly style is approved by the Doctoral Advisory Committee and Graduate Programs. It is the responsibility of candidates to assure that this written component of the dissertation follows the appropriate, designated format. Before submission, the entire on campus membership of the advisory committee must approve the completed dissertation. Candidates will submit electronically a copy of the dissertation according to the Guide to Theses and Dissertations: Preparation and Electronic Submission. The bound copies will be on file with the A-State Library, the Heritage Studies Program Director, and the chair of the advisory committee.

THE ABSTRACT

Candidates will be responsible for the preparation of an abstract of the dissertation, which will be submitted at the same time as the completed dissertation project. The abstract must not exceed 300 words and will be bound with the written component of the dissertation.

DEADLINE FOR SUBMISSION

The completed dissertation and abstract, signed by all members of the advisory committee, must be submitted electronically by the deadline set for accepting dissertations. The date for each semester and summer term is given in the University Calendar.

Checklist for the Last Semester Before Graduation:

- In the last semester before graduation, candidates must register for the graduation fee.
- File an Intent to Graduate Form with the Office of the Registrar by the relevant deadline.
- Complete the oral defense of the dissertation.
- Submit the dissertation by the relevant deadline.

Heritage Studies

Doctor of Philosophy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
Most students will take all five core classes, one of which will be applied to the Specialty Area or the Enrichment classes explained below. Some students may have taken a class equivalent to one of the five core courses and with the permission of the student's doctoral advisory committee will be permitted to take only four core classes.	
HS 7003, Introduction to Heritage Studies, Research, and Writing	3
HS 7103, Concepts of Culture	3
HS 7113, Regional Cultures: History of the Mississippi River Delta	3
HS 7123, Management Issues in the Heritage Professions	3
HS 7133, Cultural Resource Methods	3
Sub-total	15
Specialty Area:	Sem. Hrs.
Four courses that demonstrate the doctoral student's area of specialization within Heritage Studies. Under the direction of the doctoral advisory committee that is chaired by the individual student's graduate advisor, the four courses will establish an area of expertise that combines interdisciplinary emphasis and multi-cultural content with professional training (in archiving or museum work, for example). A maximum of one internship for three hours credit may be applied to the Specialty Area.	9-12
Enrichment:	Sem. Hrs.
Four courses that demonstrate study and professional training beyond the individual student's Specialty Area. Under the direction of the doctoral advisory committee these four courses will address areas that will enrich the student's research and work in Heritage Studies with special attention to expanding interdisciplinary skills and knowledge. A maximum of one internship for three hours credit may be applied to Enrichment.	9-12
Dissertation:	Sem. Hrs.
HS 889V, Dissertation <i>Each candidate for the Doctor of Philosophy in Heritage Studies must execute an original and rigorous research project culminating in the completion, public presentation, and defense of a dissertation.</i>	18
Capstone:	Sem. Hrs.
HS 7213, Research Seminar	3
Total Required Hours:	57

Program of Study for the Master of Arts in Communication Studies Degree

The Master of Arts in Communication Studies provides a flexible program based on research and theoretical foundations. The curriculum can be tailored toward interpersonal and organization communication or rhetorical criticism, providing opportunities for students interested in pursuing advancement in communication professions or preparing for doctoral studies and positions in higher education.

ADMISSION REQUIREMENTS

Applicants seeking admission to the Master of Arts degree in Communication Studies must submit a sample of writing, which could be a recent term paper or research paper.

With approval of the adviser, a student may complete up to six hours in cognate courses.

Communication Studies

Master of Arts

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
CMAC 6053, Quantitative Research Methods	3
CMAC 6203, Introduction to Graduate Study	3
CMAC 6253, Qualitative Research Methods in Communications	3
COMS 6103, Communication Theory	3
Communication Electives Select 18 hours from COMS or STCM courses.	18
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Arts in Criminal Justice Degree

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Arts degree program in Criminal Justice must meet the admission requirements of Graduate Programs. The specific program requirements are as follows. The student must have:

- BA or BS in Criminal Justice, Criminology, Political Science, Psychology, Sociology, or other closely related field.
- A minimum cumulative undergraduate GPA of 3.0 or a minimum of 3.0 for the last 60 hours of undergraduate course work completed.
- A minimum grade of B in the following undergraduate courses, or their recognized equivalents:
 - CRIM 3263, Criminology
 - SOC 3383, Social Statistics
 - SOC 4293, Methods of Social Research

Admissions are competitive.

Application deadlines: Priority deadlines for admission and for consideration for graduate assistantship are May 1 (for Summer or Fall admission); November 1 (for Spring admission).

REQUIREMENTS FOR THE DEGREE

A minimum of eighteen (18) hours for the degree must be in courses numbered at the 6000 level. Up to six hours (6) may be taken outside of the department. All students must complete a thesis or non-thesis option for the degree. Students electing to complete a thesis may take six (6) hours of CRIM 670V, Thesis, with the consent of the overseeing faculty member, in lieu of a corresponding number of hours of elective courses. (Note: Receipt of credit for thesis hours is contingent upon successful completion and defense of the thesis.) Students electing to take the non-thesis option will take comprehensive exams after earning a minimum of eighteen (18) hours in the program, including CRIM 6523, Seminar in Criminal Behavior and CRIM 6343, Methods of Social Research.

Criminal Justice

Master of Arts

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
CRIM 6233, Criminal Justice Systems	3
CRIM 6343, Methods of Social Research	3
CRIM 6383, Advanced Data Analysis	3
CRIM 6523, Seminar in Criminal Behavior	3
Select eighteen hours from the following: <i>Other courses require approval from the Director of the MACJ program and the Chair of the Criminology, Sociology, and Geography Department.</i>	18
CRIM 5313, Seminar on Organized Crime CRIM 6133, Police and Society CRIM 6403, Seminar in Juvenile Delinquency CRIM 6513, Seminar in Community and Institutional Corrections CRIM 6653, Special Topics CRIM 670V, Thesis (<i>maximum of 6 hours for students selecting thesis</i>) CRIM 680V, Independent Study POSC 6503, Managing Local Government POSC 6523, Decision Making POSC 6533, Seminar in Human Resource Management POSC 6553, Public Budgeting and Finance POSC 6563, Seminar in Public Administration POSC 6573, Grant Writing and Administration SOC 6003, Perspectives in Death and Dying SOC 6063, Sociology of Disasters SOC 6073, Sociology of Family Violence SOC 6113, Seminar in Contemporary Sociology SOC 6123, Aging, Law and Social Issues SOC 6203, Social Psychology SOC 6223, Urban Sociology SOC 6253, Rural Sociology SOC 6263, Terrorism as a Social Movement SOC 6273, Social Organization SOC 6423, Seminar in Race, Gender and Class	
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Arts in English Degree

English Master of Arts

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Arts in English must meet the admission requirements of Graduate Programs and the specific program requirements.

Applicants must hold a baccalaureate degree from an accredited four-year institution with the appropriate undergraduate background in the field of the proposed academic emphasis and a grade point average of 3.00 on the last 60 hours of undergraduate work, or a 2.75 average on all undergraduate work (A-4, B-3, C-2, D-1, F-0). The appropriate undergraduate background must include a minimum of 18 semester hours of coursework, exclusive of any basic education courses, in the proposed field of the graduate major. All courses attempted, including any repeated courses, are considered in the computation of the grade point average.

Students who do not meet the requirements as stated above may be granted admission at the master's degree level provided they have a grade point average of 2.50 overall or a 2.75 average on the last 60 hours.

1. Applicants for admission to the master's degree program who have not completed the appropriate undergraduate background will be assessed under graduate course deficiencies.
2. Applicants from an unaccredited college, who have satisfactory grades and a satisfactory undergraduate program, may be admitted with an entrance condition of 12 semester hours.

Newly admitted students must take a preliminary examination immediately after completing six to nine hours of graduate course work. This preliminary examination is a proctored, impromptu written explication of a relatively brief poem or prose passage, the text of which will be presented to the student at the time of the examination. Students will have two hours in which to write this explication, which will be administered once each semester during the regular academic year and graded by a three-member committee. For information on the exam schedule, contact the graduate adviser.

Students failing the preliminary examination must retake it in the next consecutive full semester. Students who fail the explication a second time must complete a non-credit Independent Study in explication until they can pass an explication graded by three members of the English graduate faculty. Students may not take comprehensive exit exams for the degree or register for thesis hours until the explication requirement has been satisfied.

GRADUATE COURSES AND CREDIT

Graduate students enrolled in courses numbered 5000 through 5999 must do special work in addition to that required of undergraduates in the courses numbered 4000 through 4999. Courses numbered 6000 or above are open to fully qualified graduate students only.

DEFICIENT GRADES

Should a student receive more than 6 hours of "C" or lower in 5000- or 6000-level graduate degree credit courses, that student will not be allowed to continue in the program in subsequent semesters regardless of overall GPA.

ADDITIONAL DEGREE REQUIREMENTS

A knowledge of one foreign language is a requirement for the Master of Arts degree in English. The language requirement may be met by completing the final course of the intermediate level of a foreign language (2023) with a grade of "C" or above, or by passing an examination approved by the World Languages faculty.

The foreign language requirement must be met before the comprehensive examination can be taken.

Students who elect to write a thesis may not register for thesis hours until the preliminary poetry explication requirement has been satisfied.

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
ENG 6133, Methods of Literary Study	3
English Electives <i>Must be selected in consultation with the faculty adviser. Three hours may be chosen from a related discipline.</i>	27
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Arts in History Degree

ADMISSION REQUIREMENTS

Applicants must have completed a minimum of 18 undergraduate semester hours in History in addition to three semester hours of freshman-level World Civilization and three semester hours of sophomore-level United States History (both are considered to be part of the general education requirements). Applicants for the M.A. program in History will also be evaluated by the department for academic qualification based upon their undergraduate academic records, GRE scores and letters of reference. In addition to meeting the Graduate Admissions requirements applicants must:

1. Submit acceptable GRE scores
2. Submit two letters of reference from professors familiar with the applicant's work.

Applicants who finished their undergraduate degrees seven or more years prior to applying are urged to contact the department if they are having difficulty getting letters of reference.

There is no foreign language requirement for the Master of Arts degree in History. Students who plan to pursue the Ph.D. degree, however, are encouraged to complete the intermediate level of a foreign language.

ADMISSION REQUIREMENTS - PUBLIC HISTORY EMPHASIS

Applicants must have completed a minimum of 18 undergraduate semester hours in history in addition to three semester hours of freshman-level world history and three semester hours of sophomore-level United States History (as general education requirements). Applicants for the M.A. in History, Public History Emphasis, will also be evaluated by the department for academic qualification based upon their undergraduate academic records, GRE score and letters of reference. In addition to meeting the Graduate Admissions requirements applicants must:

1. Submit acceptable GRE scores
2. Submit two letters of reference from professors familiar with the applicant's work.

Holders of the M.A. in history from A-State or another accredited graduate program may apply up to 15 hours of earned credit from a previous degree program to the completion of this degree, provided that those credits were earned within the six-year limit for completion of the second degree.

There is no foreign language requirement for the M.A. in History, Public History Emphasis. Also, students pursuing the M.A. in History, Public History Emphasis will not be required to take comprehensive examinations; however, they will be required to defend their thesis.

ADMISSION REQUIREMENTS - GLOBAL HISTORY EMPHASIS

Applicants must have completed at least 21 undergraduate semester hours in history, including three semester hours of freshman-level world history and nine semester hours of upper-division world history. Applicants for the M.A. in History, Global History emphasis, will be evaluated by the department for academic qualification based upon their undergraduate academic records, GRE scores and letters of reference. In addition to meeting the Graduate Admissions requirements applicants must:

1. Submit acceptable GRE scores
2. Submit two letters of reference from professors familiar with the applicant's work.

Holders of the M.A. in History from A-State or another accredited graduate program may apply up to 15 hours of earned credit from a previous degree program to the completion of this degree, provided that those credits were earned within the 6-year limit for completion of the second degree.

History

Master of Arts

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
<i>Course work must include at least one HIST 6253, Graduate Readings Seminar and one HIST 6263, Graduate Research Seminar.</i>	Sem. Hrs.
HIST 6003, Introduction to Graduate Study	3
HIST 630V, Thesis OR Six hours of approved History electives	6
World History Electives	6
U.S. History Electives	6
History Electives	12
Sub-total	33
Total Required Hours:	33

History
Master of Arts
Emphasis in Public History

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
HIST 6003, Introduction to Graduate Study	3
HIST 6313, Introduction to Public History	3
HIST 622V, Internship in Public History	3
HIST 630V, Thesis OR HIST 623V, Capstone	6
HIST 6763, Public History Seminar	3
Public History Electives (<i>excluding HIST 662V</i>)	6
5000- or higher-level U.S. or World History Electives	9
Sub-total	33
Total Required Hours:	33

History
Master of Arts
Emphasis in Global History

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
<i>Course work must include at least one HIST 6253, Graduate Readings Seminar and one HIST 6263, Graduate Research Seminar.</i>	
HIST 5613, Seminar in Global History	3
HIST 6003, Introduction to Graduate Study	3
HIST 6513, Theory and Practice of Global History	3
Global History Electives	9
History Electives	15
Sub-total	33
Total Required Hours:	33

Program of Study for the Master of Arts in Political Science Degree

MISSION

The mission of the MA program is to prepare students for future educational and career opportunities in both the public and private sectors. We accomplish this mission by equipping our students with substantive knowledge and methodological skills necessary to conduct research; to instruct primary, secondary, and undergraduate students on civics, government, and politics; and/or to pursue advanced graduate studies in professional programs (i.e., doctoral, law school, and other public and private related programs of study).

ADMISSION REQUIREMENTS

Beyond the admission materials required by Graduate Admissions, students interested in the MA in political science should submit directly to the MA Director the following materials:

- A statement of interest outlining the applicant's goal past the MA and the types of work he or she wishes to pursue in the program to realize that goal
- A resume
- An academic writing sample
- For international students, TOEFL scores
- Two letters of reference from people who can evaluate the applicant's academic potential
- *Optional* GRE scores on the general test

Applications received by April 30 will be given full review for fall admission, and those received by November 30 will receive full review for spring admission. Late applications after the deadlines may be reviewed at the discretion of the MA Committee. Applicants who seek a graduate assistantship must submit their materials before April 1. Applicants not meeting the April 1 deadline will be eligible for graduate assistantships only if available.

PROGRAM OF STUDY

Students enrolled in the program will choose to concentrate in one of four subfields in political science—US politics, comparative politics, international relations, or political theory. The student's program will be composed of 15 hours in the chosen concentration area (which may include 6 hours of thesis work) and two courses in political science research techniques; the remaining 9 hours will be composed of elective hours in political science (though, subject to prior approval of the MA Committee, a student may propose to take courses in cognate fields when doing so would complement graduate study in political science).

Students will have an option of pursuing a thesis or non-thesis option, which is designed to maximize the practical value of their degree. Students choosing the thesis option are required to write and defend a thesis for a total of six graduate credit hours and must take POSC 6013, Advanced Political Analysis as part of their program of study. Students choosing the non-thesis option are required to take comprehensive exams and must take POSC 6573, Grant Writing and Administration as part of their program of study.

4+1 MASTERS PROGRAM

Qualified undergraduate students may be eligible to enter the program in their junior and senior year of study.

Political Science

Master of Arts Thesis Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
POSC 6003, Techniques of Political and Public Administration Research	3
POSC 6013, Advanced Political Analysis	3
POSC 665V, Thesis	6
Political Science electives	9
Sub-total	21
Concentration:	Sem. Hrs.
Nine hours of course work in one of four concentrations: U.S. politics, comparative politics, international relations, or political theory, or nine hours of electives in cognate fields (as approved by MA committee).	9
Total Required Hours:	30

Political Science

Master of Arts Non-Thesis Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
POSC 6003, Techniques of Political and Public Administration Research	3
POSC 6573, Grant Writing & Administration	3
Political Science electives	15
Sub-total	21
Concentration:	Sem. Hrs.
Nine hours of course work in one of four concentrations: U.S. politics, comparative politics, international relations, or political theory, or nine hours of electives in cognate fields (as approved by MA committee).	9
Total Required Hours:	30

Program of Study for the Master of Arts in Sociology Degree

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Arts degree program in Sociology must meet the admission requirements of Graduate Programs. The specific program requirements are as follows. The student must have:

- a minimum cumulative undergraduate grade point average of 3.00, or a minimum of 3.0 for the last 60 hours of undergraduate course work completed;
- a minimum of eighteen (18) undergraduate hours in Sociology;
- an overall minimum GPA of 3.00 in undergraduate Sociology courses;
- a minimum grade of B in the following undergraduate courses, or their recognized equivalents:
 - SOC 2213, Introduction to Sociology
 - SOC 3383, Social Statistics
 - SOC 4293, Methods of Social Research
 - SOC 4243, Social Theory

REQUIREMENTS FOR THE DEGREE

A minimum of eighteen (18) hours for the degree must be in courses numbered at the 6000 level. Up to six hours (6) may be taken outside of the department. All students must complete a thesis or non-thesis option for the degree. Students electing to complete a thesis may take six (6) hours of SOC 670V, Thesis, with the consent of the overseeing faculty member, in lieu of a corresponding number of hours of elective courses. (Note: Receipt of credit for thesis hours is contingent upon successful completion and defense of the thesis.) Students electing to take the non-thesis option will take comprehensive exams after earning a minimum of eighteen (18) hours in the program, including SOC 6303, Contemporary Social Theory, and SOC 6343, Methods of Social Research.

Admissions are competitive.

Application deadlines: Priority deadlines for admission and for consideration for graduate assistantship are May 1 (for Summer or Fall admission); November 1 (for Spring admission).

Sociology

Master of Arts

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: Students electing to complete an internship, with consent of the overseeing faculty member and approval of the Department Graduate Studies Committee, may take CRIM 6603, Internship, as an elective course.	Sem. Hrs.
SOC 6303, Contemporary Sociological Theory	3
SOC 6343, Methods of Social Research	3
SOC 6383, Advanced Data Analysis	3
SOC 6423, Seminar in Race, Gender and Class	3
Electives Select 12-18 hours from the following: SOC 5273, World Population and Society SOC 6003, Perspectives in Death and Dying SOC 6063, Sociology of Disasters SOC 6073, Sociology of Family Violence SOC 6103, Social Change SOC 6113, Seminar in Contemporary Sociology SOC 6213, Sociology of Education SOC 6123, Aging, Law and Social Issues SOC 6203, Social Psychology SOC 6223, Urban Sociology SOC 6243, Social Theory SOC 6253, Rural Sociology SOC 6263, Terrorism as a Social Movement SOC 6273, Social Organization SOC 6353, Qualitative Methods of Social Research SOC 6413, Seminar in the Family SOC 6433, Sociology of Aging SOC 6453, Sociology of Youth Subcultures SOC 6653, Special Topics SOC 670V, Thesis (maximum of 6 hours for students selecting thesis) SOC 680V, Independent Study Any additional methods course approved by program director. (Other courses require approval from the Director of the MASOC program and the Chair of the Criminology, Sociology, and Geography Department.)	18
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Music - Performance Degree

ADMISSION REQUIREMENTS

Applicants seeking admission to the Master of Music - Performance Degree program must take the A-State Department of Music entrance examinations in music history and written and aural music theory. The results of this examination assist in planning each student's exact course of study. A grade of "A" or "B" must be achieved in any remedial coursework. Remedial coursework may not be counted as credit toward the degree. Arkansas State University graduates who begin graduate studies within eighteen months of graduation will not be required to take the entrance examination providing they received an "A" or "B" on all undergraduate music theory and history coursework.

Students seeking admission to the Master of Music - Performance Degree with a concentration in Instrumental or Vocal Performance must audition for the appropriate applied faculty member prior to initial enrollment. International students must submit a video link or audition DVD to the Graduate Program Supervisor, who will distribute it to the appropriate faculty for review. At the discretion of the applied faculty member a three to five member committee may be convened to hear the audition or video recording. The applied faculty member (or committee) will evaluate the performance and report the results to the Graduate Program Supervisor. All graduate instrumental and vocal performance students are required to perform a proficiency jury at the end of the first semester of applied study. Students will receive written comments from the jury panel.

Students seeking admission to the Master of Music - Performance Degree with a concentration in Instrumental or Choral Conducting must submit a video link or DVD to the appropriate applied conducting faculty member prior to initial enrollment, or conduct two pieces in live audition. At the discretion of the applied faculty member, a three to five member committee may be convened to evaluate the video link or live audition. Contents of the video link or DVD should include two or more numbers of contrasting styles with a total time of no less than eight minutes. The video should be a front view of the conductor, not the ensemble. The conducting faculty (or committee) will evaluate the video and report the results to the Graduate Program Supervisor.

Music - Performance

Master of Music Concentration in Performance - Instrumental or Vocal

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUS 6533, Research Techniques	Sem. Hrs. 3
Sub-total	3
Concentration (Performance - Instrumental or Vocal):	
<i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	
<i>The Master of Music - Performance Degree requires language proficiency as follows: Students in the vocal concentration must demonstrate reading proficiency in two foreign languages, and students in the instrumental concentration who perform on keyboard instruments must demonstrate reading proficiency in one foreign language. French and/or German are the recommended languages.</i>	
Performance Applied Music	8
Large Ensembles <i>Students in the instrumental concentration who play piano and guitar are required to take three hours of large ensembles and/or advisor-approved electives.</i>	3
MUSP 6122, Pedagogy and Performance	2
MUSP 6131, Graduate Recital <i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	1
MUS 6443, Analytical Procedures	3
MUS 6453, Special Topics in Music Analysis	3
MUS 6513, Symphonic and Chamber Literature	3
MUS 6523, Choral and Opera Literature	3
Advisor-Approved Elective	1
Sub-total	27
Total Required Hours:	30

Music - Performance

Master of Music Concentration in Collaborative Piano

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUS 6533, Research Techniques	Sem. Hrs. 3
Sub-total	3
Concentration (Collaborative Piano):	
<i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	
<i>The Master of Music - Performance Degree requires language proficiency as follows: Students in the vocal concentration must demonstrate reading proficiency in two foreign languages, and students in the instrumental concentration who perform on keyboard instruments must demonstrate reading proficiency in one foreign language. French and/or German are the recommended languages.</i>	
Performance Applied Music	6
MUSP 5151, Collaborative Piano (<i>four hours required</i>)	4
MUED 5642, Piano Pedagogy	2
MUED 612V, Pedagogy and Performance	2
MUSP 6131, Graduate Recital <i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	1
MUS 6443, Analytical Procedures OR MUS 6453, Special Topics in Music Analysis	3
MUS 6513, Symphonic and Chamber Literature	3
MUS 6523, Choral and Opera Literature	3
Advisor-approved Electives	4
Sub-total	27
Total Required Hours:	30

Music - Performance

Master of Music Concentration in Piano Performance and Pedagogy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUS 6533, Research Techniques	3
Sub-total	3
Concentration (Piano Performance and Pedagogy):	
<i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	Sem. Hrs.
<i>The Master of Music - Performance Degree requires language proficiency as follows: Students in the vocal concentration must demonstrate reading proficiency in two foreign languages, and students in the instrumental concentration who perform on keyboard instruments must demonstrate reading proficiency in one foreign language. French and/or German are the recommended languages.</i>	
Performance Applied Music	8
MUED 5642, Piano Pedagogy	2
MUED 6632, Graduate Piano Pedagogy	2
MUSP 6122, Pedagogy and Performance	2
MUSP 6131, Graduate Recital <i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	1
MUS 6443, Analytical Procedures OR MUS 6453, Special Topics in Music Analysis	3
MUS 6513, Symphonic and Chamber Literature	3
MUS 6523, Choral and Opera Literature	3
Advisor-approved Electives	3
Sub-total	27
Total Required Hours:	30

Music - Performance

Master of Music Concentration in Composition

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUS 6533, Research Techniques	3
Sub-total	3
Concentration (Composition):	
Performance Applied Music	8
Select three hours from the following: MUSP 6111, Performance: Applied Electronic Music Techniques MUSP 6112, Performance: Applied Electronic Music Techniques	3
MUSP 6122, Pedagogy and Performance	2
MUSP 6131, Graduate Recital <i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	1
MUS 6443, Analytical Procedures	3
MUS 6453, Special Topics in Music Analysis	3
MUS 6513, Symphonic and Chamber Literature	3
MUS 6523, Choral and Opera Literature	3
Advisor-approved Elective	1
Sub-total	26
Total Required Hours:	30

Music - Performance

Master of Music Concentration in Conducting

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUS 6533, Research Techniques	Sem. Hrs. 3
Sub-total	3
Concentration (Conducting):	
Performance Applied Music	Sem. Hrs. 8
MUSP 6122, Pedagogy and Performance	2
MUSP 6131, Graduate Recital <i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	1
MUS 6443, Analytical Procedures	3
MUS 6453, Special Topics in Music Analysis	3
MUS 6513, Symphonic and Chamber Literature	3
MUS 6523, Choral and Opera Literature	3
Advisor-approved Electives	3
Sub-total	27
Total Required Hours:	30

Music - Performance

Master of Music Concentration in Jazz Studies

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUS 6533, Research Techniques	Sem. Hrs. 3
Sub-total	3
Concentration (Jazz Studies):	
Performance Applied Music	Sem. Hrs. 8
MUS 5553, Music History Seminar	3
MUSP 6122, Pedagogy and Performance	2
MUSP 6131, Graduate Recital <i>All students pursuing the Master of Music - Performance Degree are required to submit a scholarly document to accompany the Graduate Recital. Specifications regarding this document may be obtained from the Graduate Program Director in the Music Department.</i>	1
MUS 6341, Jazz Ensemble	3
MUS 6443, Analytical Procedures	3
MUS 6453, Special Topics in Music Analysis	3
Advisor-approved Electives	4
Sub-total	27
Total Required Hours:	30

Program of Study for the Master of Music Education Degree

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Music Education Degree program must meet the admission requirements of Graduate Programs and the specific program requirements. In addition, applicants must have completed a four-year teacher education program. Applicants who do not meet the requirements of completing a four-year teacher education program may be required to complete the undergraduate courses leading to licensure. These courses may be completed concurrently with graduate work, but must be completed before the degree is awarded. Applicants must also take the A-State Department of Music entrance examinations in music history, written music theory, and aural music theory.

Admission into the MME program requires the submission of:

- Official transcripts for coursework and degree completion verification in music education or an approved equivalent.
- A Letter of Interest (minimum of 500 words, maximum of 750) stating current professional status/goals after obtaining the MME degree and a brief overview of your philosophy of music education.
- Resume or Curriculum Vitae.
- A minimum of three (3) professional letters of recommendation.
- An example of your teaching (must be an audio-visual recording of an ensemble or group music lesson; minimum of 5 minutes, maximum of 10 minutes).

In addition to the above requirements, the following grades and scores must be achieved:

- **Unconditional Admission** – A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours).
- **Conditional Admission** - A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours).

Music Education

Master of Music Education Emphasis in Choral

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MUED 6533, Research in Music Education	Sem. Hrs. 3
MUED 6433, Advanced Conducting	3
Large Ensembles	2
MUED 6613, Leadership in Contemporary Music Education	3
MUS 6533, Research Techniques	3
Select one of the following (or course as approved by advisor): MUSP 6111, Applied Voice, Instrument, or Conducting (2 hours) OR MUSP 6112, Applied Voice, Instrument, or Conducting OR MUSP 6121, Pedagogy and Performance (2 hours) OR MUSP 6122, Pedagogy and Performance OR MUED 680V Independent Study	2
MUS 6443, Analytical Procedures	3
6000-Level Music History Elective	3
Sub-total	22
Emphasis Area (Choral):	
MUED 621V, Pedagogy and Performance - Vocal Literature and Styles	Sem. Hrs. 2
Thesis/Research Option:	
Thesis/Research Option (Select one of the following options): Research Project Option: <i>Electives must be chosen in consultation with the Graduate advisor from amongst Music courses and/or courses outside the music department such as the College of Education and Behavioral Sciences/Liberal Arts and Communication and/or related fields of study.</i> MUED 6662, Music Education Research Project Advisor Approved Electives Thesis Option (Select two of the following): <i>This written work is directed by the Graduate Advisor and/or specific Faculty Topic Advisor after approval by the Thesis Committee and Music Chair.</i> MUED 664V, Thesis	6
Total Required Hours:	30

Music Education

Master of Music Education Emphasis in Instrumental

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
MUED 6533, Research in Music Education	3
MUED 6433, Advanced Conducting	3
Large Ensembles	2
MUED 6613, Leadership in Contemporary Music Education	3
MUS 6533, Research Techniques	3
Select one of the following (or course as approved by advisor): MUSP 6111, Applied Voice, Instrument, or Conducting (2 hours) OR MUSP 6112, Applied Voice, Instrument, or Conducting OR MUSP 6121, Pedagogy and Performance (2 hours) OR MUSP 6122, Pedagogy and Performance OR MUED 680V Independent Study	2
MUS 6443, Analytical Procedures	3
6000-Level Music History Elective	3
Sub-total	22
Emphasis Area (Instrumental):	Sem. Hrs.
MUED 621V, Pedagogy and Performance - Instrumental Literature and Styles	2
Thesis/Research Option:	Sem. Hrs.
Thesis/Research Option (Select one of the following options):	6
<p>Research Project Option: <i>Electives must be chosen in consultation with the Graduate advisor from amongst Music courses and/or courses outside the music department such as the College of Education and Behavioral Sciences/Liberal Arts and Communication and/or related fields of study.</i> MUED 6662, Music Education Research Project Advisor Approved Electives</p> <p>Thesis Option (Select two of the following): <i>This written work is directed by the Graduate Advisor and/or specific Faculty Topic Advisor after approval by the Thesis Committee and Music Chair.</i> MUED 664V, Thesis</p>	
Total Required Hours:	30

Program of Study for the Master of Public Administration

MISSION

The Master of Public Administration at Arkansas State University exists to enhance individual, organizational, social and governmental capacity in the public and non-profit sectors by equipping pre-service and mid-career students with sound management skills and a public/non-profit philosophy to lead public institutions of the future with integrity, innovation, excellence and professionalism.

ADMISSION REQUIREMENTS

To be considered for admission to the MPA program, in addition to meeting Graduate Programs admission requirements applicants must provide:

- Three letters of recommendation
- A statement of purpose indicating why the student wishes to undertake the MPA

Moreover, an applicant's undergraduate background must include courses with grades of "C" or higher in U.S. government, principles of economics, and research methods, or their equivalents. If the student is deficient, these courses must be taken in addition to the graduate course requirements specified below. Such undergraduate deficiencies must be completed prior to or during the first graduate enrollment period.

Any potential graduate transfer credits must be from another NASPAA (National Association of Schools of Public Affairs and Administration)-accredited program to be eligible for consideration. Per Graduate Admissions guidelines, to gain unconditional admission a student must also have a 3.0 GPA for any prior graduate courses or programs. Only 9 hours of transfer work will be accepted.

For unconditional admission, a student must have a minimum cumulative undergraduate grade point average of 3.2.

For conditional admission, academic proficiency must be established by a minimum cumulative undergraduate grade point average of 3.0.

Students who earn "D" or "F" grades in graduate work elsewhere will not be admitted to the program. Students who earn "F" grades in the MPA at Arkansas State University will not be re-admitted to the program.

4+1 (ACCELERATED) MASTER'S PROGRAM

Qualified undergraduate students may be eligible to enter the program in their junior and senior year of study.

Public Administration

Master of Public Administration Emphasis in Public Management (Non-Thesis Option)

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
<i>All students in non-thesis tracks are required to complete and submit a set of comprehensive case study analyses during their final enrollment period, via the MPA Capstone Experience.</i>	
POSC 6003, Techniques of Political & Public Administration Research	3
POSC 6553, Public Budgeting & Finance	3
POSC 6563, Seminar in Public Administration	3
POSC 6573, Grant Writing & Administration	3
POSC 6593, Seminar in Human Resources Management	3
POSC 6613, Administrative Leadership	3
POSC 6623, Administrative Ethics	3
Sub-total	21
Emphasis Area (Public Management - Non-Thesis Option):	Sem. Hrs.
POSC 6423, Public Financial Management	3
POSC 6533, Public Policy Analysis and Evaluation	3
POSC 6543, Administrative Behavior	3
POSC 6603, Internship in Public Administration OR POSC 6473, Strategic Planning, Policy and Management	3
POSC 6653, MPA Capstone Experience	3
Sub-total	15
Total Required Hours:	36

Public Administration

Master of Public Administration Emphasis in Nonprofit Management (Non-Thesis Option)

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
<i>All students in non-thesis tracks are required to complete and submit a set of comprehensive case study analyses during their final enrollment period, via the MPA Capstone Experience.</i>	
POSC 6003, Techniques of Political & Public Administration Research	3
POSC 6553, Public Budgeting & Finance	3
POSC 6563, Seminar in Public Administration	3
POSC 6573, Grant Writing & Administration	3
POSC 6593, Seminar in Human Resources Management	3
POSC 6613, Administrative Leadership	3
POSC 6623, Administrative Ethics	3
Sub-total	21
Emphasis Area (Nonprofit Management - Non-Thesis Option):	Sem. Hrs.
POSC 6433, Nonprofit Fundraising and Financial Management	3
POSC 6443, Nonprofit Planning and Marketing	3
POSC 6603, Internship in Public Administration OR POSC 6473, Strategic Planning, Policy and Management	3
POSC 6643, Nonprofit Management	3
POSC 6653, MPA Capstone Experience	3
Sub-total	15
Total Required Hours:	36

Public Administration
Master of Public Administration
Emphasis in Public Management (Thesis Option)

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: <i>Please note that this option is recommended only for students planning to pursue a Ph.D.</i>	Sem. Hrs.
POSC 6003, Techniques of Political & Public Administration Research	3
POSC 6553, Public Budgeting & Finance	3
POSC 6563, Seminar in Public Administration	3
POSC 6573, Grant Writing & Administration	3
POSC 6593, Seminar in Human Resources Management	3
POSC 6613, Administrative Leadership	3
POSC 6623, Administrative Ethics	3
Sub-total	21
Emphasis Area (Public Management - Thesis Option):	Sem. Hrs.
POSC 6423, Public Financial Management	3
POSC 6533, Public Policy Analysis and Evaluation	3
POSC 6543, Administrative Behavior	3
POSC 665V, Thesis	6
Sub-total	15
Total Required Hours:	36

Public Administration
Master of Public Administration
Emphasis in Nonprofit Management (Thesis Option)

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements: <i>Please note that this option is recommended only for students planning to pursue a Ph.D.</i>	Sem. Hrs.
POSC 6003, Techniques of Political & Public Administration Research	3
POSC 6553, Public Budgeting & Finance	3
POSC 6563, Seminar in Public Administration	3
POSC 6573, Grant Writing & Administration	3
POSC 6593, Seminar in Human Resources Management	3
POSC 6613, Administrative Leadership	3
POSC 6623, Administrative Ethics	3
Sub-total	21
Emphasis Area (Nonprofit Management - Thesis Option):	Sem. Hrs.
POSC 6433, Nonprofit Fundraising and Financial Management	3
POSC 6443, Nonprofit Planning and Marketing	3
POSC 6643, Nonprofit Management	3
POSC 665V, Thesis	6
Sub-total	15
Total Required Hours:	36

Program of Study for the Master of Science in Education Degree in English

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in English Education must meet the admission requirements of Graduate Programs and the specific program requirements. In addition, applicants must have completed a minimum of 18 hours of professional education courses including the requirements for a valid teaching certificate based on a four-year teacher education program. Applicants who do not meet the requirements for a valid teaching certificate based on a four-year teacher education program will be required to complete the undergraduate courses required for such a certificate. These courses may be completed concurrently with the graduate work, but must be completed before the degree is awarded.

For unconditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

1. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours) and a raw score of at least 30 on the Miller Analogies Test (MAT) or a minimum score of 292 on the combined verbal and quantitative sections of the Graduate Record Examination (GRE).
2. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours) and a raw score of at least 35 on the MAT or a minimum score of 292 on the combined verbal and quantitative sections of the GRE.

For conditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

1. The total undergraduate GPA is 2.50 AND when the undergraduate GPA is multiplied by 10 and then multiplied by the MAT score the total is at least 600.
2. The total undergraduate GPA is 2.50 AND when the undergraduate GPA is multiplied by the GRE score the total is at least 1850.

Newly admitted students must take a preliminary examination immediately after completing six to nine hours of graduate course work. This preliminary examination is a proctored, impromptu written explication of a relatively brief poem or prose passage, the text of which will be presented to the student at the time of the examination. Students will have two hours in which to write this explication, which will be administered once each semester during the regular academic year and graded by a three-member committee. For information on the exam schedule, contact the graduate adviser.

Students failing the preliminary examination must retake it in the next consecutive full semester. Students who fail the explication a second time must complete a non-credit Independent Study in explication until they can pass an explication graded by three members of the English graduate faculty. Students may not take comprehensive exit exams for the degree until the explication requirement has been satisfied.

GRADUATE COURSES AND CREDIT

Graduate students enrolled in courses numbered 5000 through 5999 must do special work in addition to that required of undergraduates in the courses numbered 4000 through 4999. Courses numbered 6000 or above are open to fully qualified graduate students only.

DEFICIENT GRADES

Should a student receive more than 6 hours of "C" or lower in 5000- or 6000-level graduate degree credit courses, that student will not be allowed to continue in the program in subsequent semesters regardless of overall GPA.

English

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education Core Courses:	
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	Sem. Hrs. 3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6063, Curriculum Management ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELFN 6763, Philosophies of Education (<i>if not taken previously</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken previously</i>)	3
Sub-total	9
Program Requirements:	
ENG 6133, Methods of Literary Study	Sem. Hrs. 3
Select one of the following: ENG 5023, Advanced Creative Writing ENG 6013, Composition Theory ENG 6533, Teaching Writing ENG 6563, Teaching Literature ENG 6613, Graduate Seminar (with graduate advisor permission)	3
English Electives	15
Sub-total	21
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in Social Science

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Social Science must meet the admission requirements of Graduate Programs and the specific program requirements. In addition, applicants must have completed a minimum of 18 hours of professional education courses including the requirements for a valid teaching certificate based on a four-year teacher education program. Applicants who do not meet the requirements for a valid teaching certificate based on a four-year teacher education program will be required to complete the undergraduate courses required for such a certificate. These courses may be completed concurrently with the graduate work, but must be completed before the degree is awarded.

For unconditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

1. A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours) and a score of at least 383 on the Miller Analogies Test (MAT) or a minimum score of 292 on the combined verbal and quantitative sections of the Graduate Record Examination (GRE).
2. A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours) and a score of at least 391 on the MAT or a minimum score of 292 on the combined verbal and quantitative sections of the GRE.

For conditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

1. The total undergraduate GPA is 2.50 AND when the undergraduate GPA is multiplied by the MAT score the total is at least 927.
2. The total undergraduate GPA is 2.50 AND when the undergraduate GPA is multiplied by the GRE score the total is at least 720.

Social Science

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education Courses:	
EDSS 6103, MSE Social Science Capstone Portfolio	3
Select two of the following: ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELCI 6533, Theories of Instruction ELFN 6763, Philosophies of Education ELSE 5733, Gifted Children in the Regular Classroom ELSE 6023, Characteristics of Individuals with Disabilities ELSE 6673, Children with Emotional and Behavioral Disorders MLED 6403, World of the Young Adolescent PSY 6513, Advanced Educational Psychology RDNG 6533, Literacy for Diverse Learners RDNG 6553, Adolescent Literacy TE 6243, Technology as a Tool for Teaching	6
Sub-total	9
Program Requirements:	
<i>Six (6) of the total 33 hours may be earned in Independent Study; no more than 12 hours may be earned at the 5000 level.</i> *Students may opt to substitute an additional HIST or Education course for <u>one</u> social science elective.	
HIST 6003, Introduction to Graduate Study of History	3
United States History Electives (<i>if student takes 9 hours of US History coursework, they only need 6 hours of World History coursework</i>)	6-9
World History Electives (<i>if student takes 9 hours of World History coursework, they only need 6 hours of US History coursework</i>)	6-9
Social Science Electives (Political Science, Geography, Sociology, Psychology, Economics)	6
Sub-total	24
Total Required Hours:	33

Program of Study for the Master of Science in Media Management Degree

The Master of Science in Media Management degree exists to enhance one's ability to function and lead in today's ever changing media environment by providing individuals sound management skills and philosophies so they can play a lead role in tomorrow's media with integrity, innovation, excellence and professionalism. Unlike the MSMC degrees, the MSMM degree does not require the individual courses CMAC 6203 Introduction to Graduate Study or CMAC 6253 Qualitative Research Methods as part of one's college core. Instead portions of those courses will be interwoven into other course offerings. This degree prepares students for opportunities in organizational and strategic communication, broadcasting, journalism and new technologies.

ADMISSION REQUIREMENTS

Admission to the Master of Science in Media Management is based on a variety of evidence, including educational experience and record, professional experience, one letter of recommendation, a resume, and a written statement of purpose.

Moreover, an applicant's undergraduate background must include courses with grades of "C" or higher in some media or media-related field or their equivalents. If the student is deficient, these courses must be taken in addition to the graduate course requirements specified below. Such undergraduate deficiencies must be completed prior to or during the first graduate enrollment period.

Any potential graduate transfer credits must be from another accredited institution. Per Graduate Admissions guidelines, to gain unconditional admission a student must also have a 3.0 GPA for any prior graduate courses or programs. No more than 6 hours of transfer work, if any, will be accepted.

Media Management

Master of Science in Media Management

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
<i>All students are required to document a foundation in media either through professional experience or academic training. Those without such a foundation may be required to complete a series of undergraduate courses.</i>	Sem. Hrs.
CMAC 6053, Quantitative Research Methods in Mass Communication	3
CMAC 6463, Media Management Applications/Capstone	3
STCM 6033, Communication Regulations and Policy	3
STCM 6253, Audience Marketing Analysis	3
MDIA 6023, Advanced Studies in Broadcast Management	3
MDIA 6043, Theory of Mass Communication	3
Select one of the following options: <i>Students may take one of the options listed below totaling twelve (12) hours of credit.</i>	12
Option 1: Mass Media Management: STCM 5113, Integrated Marketing Communication STCM 5603, Crisis Communication STCM 6263, Advertising Account Management MDIA 6423, Media Entrepreneurship	
Option 2: Public Administration (select four of the following): STCM 5213, Social Media in Strategic Communication STCM 6263, Advertising Account Management POSC 6543, Administrative Behavior POSC 6563, Seminar in Public Administration POSC 6593, Seminar in Human Resource Management POSC 6613, Administrative Leadership POSC 6623, Administrative Ethics	
Option 3: Digital Management: STCM 5113, Integrated Marketing Communication STCM 5213, Social Media in Strategic Communication STCM 5463, Interactive Advertising STCM 5473, Social Media Measurement	
Sub-total	30
Total Required Hours:	30

Program of Study for the Master of Science in Mass Communications Degree

The Master of Science in Mass Communications offers majors in journalism and in radio-television. Focusing on research and scholarship, the flexible curriculum provides opportunities for students interested in pursuing advancement in mass communications or preparing for doctoral studies and positions in higher education. Some students with limited mass communications background may be required to complete some undergraduate and graduate performance courses as part of their programs of study.

ADMISSION REQUIREMENTS

Admission to the Master of Science in Mass Communications program is based on a variety of evidence, including educational experience and record, professional experience, recommendations, and a written statement of purpose.

Journalism

Master of Science in Mass Communications

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
MDIA 6043, Theory of Mass Communications	3
CMAC 6053, Quantitative Research Methods in Communications	3
CMAC 6203, Introduction to Graduate Study	3
CMAC 6253, Qualitative Research Methods in Communications	3
Sub-total	12
Journalism Requirements:	
Select twelve hours from the following: STCM 5113, Integrated Marketing Communication STCM 5023, Public Opinion, Propaganda and the Mass Media STCM 5603, Crisis Communication STCM 6023, Advanced Studies in Communications Law MDIA 5043, Studies in Newspaper Management MDIA 5053, Public Affairs Reporting MDIA 5083, Sports, Business and Opinion Writing MDIA 5323, Diversity and Media MDIA 5373, Internet Communications MDIA 6083, Journalism Seminar MDIA 680V, Independent Study	12
Electives:	
Advisor-approved Electives <i>May include six hours of thesis or project credit, courses in the college and/or courses outside the college. The topic of the thesis or project is subject to approval by the student's thesis or project committee. The thesis or project may be a continuation or extension of research begun in a Communications graduate class.</i>	6
Total Required Hours:	30

Radio-Television

Master of Science in Mass Communications

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
MDIA 6043, Theory of Mass Communications	3
CMAC 6053, Quantitative Research Methods in Communications	3
CMAC 6203, Introduction to Graduate Study	3
CMAC 6253, Qualitative Research Methods in Communications	3
Sub-total	12
Radio-Television Requirements:	Sem. Hrs.
Select twelve hours from the following: STCM 5023, Public Opinion, Propaganda and the Mass Media STCM 6023, Advanced Studies in Communications Law MDIA 5313, Multimedia Reporting MDIA 5333, Trending Topics MDIA 5343, News Production and Performance MDIA 5363, Multimedia Storytelling MDIA 5373, Internet Communications MDIA 5573, Sportscasting MDIA 6023, Advanced Studies in Broadcast Management MDIA 6033, The Broadcast Documentary MDIA 6073, International Communication Seminar MDIA 6223, Broadcasting Seminar MDIA 680V, Independent Study	12
Electives:	Sem. Hrs.
Advisor-approved Electives <i>May include six hours of thesis or project credit, courses in the college and/or courses outside the college. The topic of the thesis or project is subject to approval by the student's thesis or project committee. The thesis or project may be a continuation or extension of research begun in a Communications graduate class.</i>	6
Total Required Hours:	30

Program of Study for the Master of Science Degree in Strategic Communication

The Master of Science in Strategic Communication program provides a comprehensive foundation for a successful career in a wide range of communication fields. The program combines the foundational theories of effective communication with practical application to make an impact in a constantly changing communication landscape. Students may also choose to take courses leading to an emphasis in Information Technology Law and Policy, or Social Media Management.

ADMISSION REQUIREMENTS

Applicants seeking admission to the Master of Science degree in Strategic Communication must submit a sample of writing, which could be a recent research paper or professional communication publication. With approval of the advisor, a student may complete up to six hours in cognate courses.

Strategic Communication

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
STCM 6033, Communication Regulations and Policy OR MDIA 6423, Media Entrepreneurship	3
CMAC 6053, Quantitative Research Methods	3
STCM 6253, Audience Market Analysis	3
STCM 6263, Advertising Account Management	3
STCM 6303, Seminar in Strategic Communications	3
STCM 6533, Strategic Communication Management Capstone	3
Communication electives: Select 12 hours from COMS or STCM courses. Students may also choose up to six hours of approved cognate electives. (Students who have taken a 4000-level of a course may not take the 5000-level for graduate credit.)	12
Sub-total	30
Total Required Hours:	30

Strategic Communication

Master of Science Emphasis in Global Strategic Communication

University Requirements:	
See Graduate Degree Policies for additional information (p. 35)	
Program Requirements:	
	Sem. Hrs.
STCM 6033, Communication Regulations and Policy OR MDIA 6423, Media Entrepreneurship	3
CMAC 6053, Quantitative Research Methods	3
STCM 6253, Audience Market Analysis	3
STCM 6263, Advertising Account Management	3
STCM 6303, Seminar in Strategic Communications	3
STCM 6533, Strategic Communication Management Capstone	3
Sub-total	18
Emphasis Area (Global Strategic Communication):	
COMS 5253, Intercultural Communication OR COMS 5263, Organizational Communication OR COMS 6413, Organizational and Intercultural Communication	3
STCM 5123, International Intellectual Property Law	3
STCM 6323, Global Strategic Communication	3
STCM 6333, Development Communication	3
Sub-total	12
Total Required Hours:	30

Strategic Communication

Master of Science Emphasis in Information Technology Law and Policy

University Requirements:	
See Graduate Degree Policies for additional information (p. 35)	
Program Requirements:	
	Sem. Hrs.
STCM 6033, Communication Regulations and Policy OR MDIA 6423, Media Entrepreneurship	3
CMAC 6053, Quantitative Research Methods	3
STCM 6253, Audience Market Analysis	3
STCM 6263, Advertising Account Management	3
STCM 6303, Seminar in Strategic Communications	3
STCM 6533, Strategic Communication Management Capstone	3
Sub-total	18
Emphasis Area (Information Technology Law and Policy):	
STCM 5013, EU and US Data Protection Law	3
STCM 5123, International Intellectual Property Law	3
STCM 5143, Privacy Law	3
STCM 6313, Seminar in Information Technology Law	3
Sub-total	12
Total Required Hours:	30

Strategic Communication

Master of Science Emphasis in Social Media Management

University Requirements:	
See Graduate Degree Policies for additional information (p. 35)	
Program Requirements:	
	Sem. Hrs.
STCM 6033, Communication Regulations and Policy OR MDIA 6423, Media Entrepreneurship	3
CMAC 6053, Quantitative Research Methods	3
STCM 6253, Audience Market Analysis	3
STCM 6263, Advertising Account Management	3
STCM 6303, Seminar in Strategic Communications	3
STCM 6533, Strategic Communication Management Capstone	3
Sub-total	18
Emphasis Area (Social Media Management):	
STCM 5113, Integrated Marketing Communication	3
STCM 5213, Social Media in Strategic Communication	3
STCM 5463, Interactive Advertising	3
STCM 5473, Social Media Measurement	3
Sub-total	12
Total Required Hours:	30

Graduate Certificate in Health Communication

The health care industry is the fastest growing sector in the U.S. economy and continues to grow in structure, size, and complexity given the advent of new technologies, an aging population, the prevalence of chronic conditions, and the expansion of insurance coverage. Communication is a vital part of the healthcare industry. Health communication is relevant and integral for virtually all aspects of health and wellness including risk prevention and management, disease prevention, and health promotion. The courses selected for the certificate in health communication are chosen for their applicability both to individuals currently working in the health care industry and those who desire to enter it.

Health Communication

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Requirements:	Sem. Hrs.
COMS 5253, Intercultural Communication	3
COMS 5263, Organizational Communication	3
COMS 5403, Seminar in Health Communication	3
COMS 5433, Health Communication Campaigns	3
Sub-total	12
Electives:	Sem. Hrs.
Select three hours from the following: COMS 5243, Interpersonal Communication OR COMS 6243, Seminar in Interpersonal Communication COMS 5423, Narratives in Health and Healing STCM 5603, Crisis Communication STCM 6303, Seminar in Strategic Communications	3
Total Required Hours:	15

Graduate Certificate in History

The State of Arkansas requires that secondary education teachers have 18 credit hours to teach concurrent courses in a specific discipline. College instructors must also meet those credit hour requirements. The Graduate Certificate in History will provide the 18 credit hours needed by high school teachers to meet the requirements to teach History concurrent courses and by instructors to meet the requirements to teach History at the college level.

Applicants must have completed a minimum of 18 undergraduate semester hours in History (courses in allied fields may be counted at the discretion of the department) in addition to three semester hours of freshman-level World Civilization and three semester hours of sophomore-level United States History. Applicants for the Graduate Certificate in History will also be evaluated by the department for academic qualification based upon their undergraduate academic records and letters of reference. In addition to meeting the Graduate Admissions requirements applicants must:

1. Submit two letters of reference from professors familiar with the applicant's work.

Applicants who finished their undergraduate degrees seven or more years prior to applying are urged to contact the department if they are having difficulty getting letters of reference.

There is no foreign language requirement for the Graduate Certificate in History.

History

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
Select eighteen hours from the following: HIST 5133, History of Ancient China HIST 5143, Rise of Modern China HIST 5213, History of England: 55 B.C. to A.D. 1689 HIST 5223, History of Great Britain: 1688 to 1982 HIST 5273, History of Mexico HIST 5313, Introduction to Public History HIST 5323, Management of Archives and Manuscripts HIST 5413, Colonial North America HIST 5423, Foundations of the American Republic, 1783-1850 HIST 5453, United States Civil War and Reconstruction HIST 5463, U.S. Gilded Age/Progressive Era HIST 5473, U.S. Southern Women's History HIST 5483, History of Sexuality in America HIST 5513, Museum Collections Management HIST 5553, History of Medicine HIST 5613, Seminar in Global History HIST 5713, Computers in the Social Studies Classroom HIST 5763, Public History Seminar HIST 6003, Introduction to Graduate Study of History HIST 6213, The Practice of History HIST 6253, Graduate Readings Seminar HIST 6263, Graduate Research Seminar HIST 6273, Special Topics in World History HIST 6283, Special Topics in American History HIST 6323, Historic Preservation HIST 6333, Seminar in Arkansas Studies HIST 6343, Historic Preservation Field School HIST 6363, American Architectural History HIST 6403, Studies in African-American History HIST 6413, American Regional History HIST 6433, American Cultural and Social History HIST 6443, American Groups in Conflict HIST 6453, American Period Studies HIST 6513, Theory and Practice of Global History HIST 6523, Africa, Slavery, and World History HIST 6533, Indian Ocean World Since 1100 HIST 6553, Black Death in Global Perspective HIST 6613, Studies in Civilization HIST 6623, European History HIST 6633, Eurasian History HIST 6653, Asian History HIST 680V, Independent Study	18
Total Required Hours:	18

College of Nursing and Health Professions

The College of Nursing and Health Professions offers a number of graduate level programs: the Master of Athletic Training (M.A.T.), the Master of Communication Disorders (M.C.D.), the Master of Science in Disaster Preparedness and Emergency Management (M.S.), the Doctor of Nursing Practice (D.N.P.), the Doctor of Nursing Practice in Nurse Anesthesia (D.N.P.), the Master of Science in Nursing (M.S.N. with Family Nurse Practitioner, Adult Gerontology Acute Care Nurse Practitioner, Nurse Administrator, and Nurse Educator options), the Master of Science in Nursing in Nurse Anesthesia (M.S.N.), the Graduate Certificate in Family Nurse Practitioner, the Graduate Certificate of Adult Gerontology Acute Care Nurse Practitioner, the Graduate Certificate in Nurse Administration, the Graduate Certificate in Nurse Educator, the Master of Science in Nutrition and Dietetics (M.S.N.D.), the transitional Master of Science in Nutrition and Dietetics (tM.S.N.D.), the Doctor of Occupational Therapy (O.T.D.), the Doctor of Physical Therapy (D.P.T.), the Master of Social Work (M.S.W.), and the Graduate Certificate in Addiction Studies.

Program of Study for the Master of Athletic Training Degree

The Master of Athletic Training (MAT) program at Arkansas State University completed accreditation review from the Commission on Accreditation of Athletic Training Education (CAATE) in Spring 2020.

This program is designed to help students with a bachelor's degree and the proper prerequisite coursework to start the professional coursework required of the profession and the Board of Certification exam (BOC). Once accepted to the program, students attend full time for 2 years to complete the MAT degree. Graduate level classroom and clinical study will provide an educational framework that prepares students to be successful as athletic trainers. It will provide the foundation that allows athletic trainers to adapt to the changing face of healthcare and to be positioned as a healthcare provider who significantly improves the health and well-being of their patients and have meaningful, purposeful career paths.

ADMISSION REQUIREMENTS

All applicants must have a bachelor's degree. No particular field of study is required; however students are encouraged to select undergraduate majors consistent with their individual abilities and interests. Required courses in some majors such as biology and exercise science are more consistent with the MAT pre-requisite requirements.

APPLICATIONS DEADLINES

The deadline for submitting applications to A-State Admissions is April 1st.

PREREQUISITES

Satisfactory completion with a letter grade of B or higher are required for admission to the MAT program.

- Anatomy & Physiology I & II (4 credits each- must include labs)
- Chemistry
- Physics I (4 credits- must include lab)
- Biology
- Psychology
- Statistics
- Kinesiology and/or Biomechanics

Students are encouraged to complete additional preparation courses in the hard sciences beyond the MAT prerequisites to receive additional weighting credit in the application scoring process. Students are also encouraged to complete related specialty certifications such as Emergency Medical Technician, Teaching Certification, Strength and Conditioning Specialist, Corrective Exercise Specialist or Casting Certification prior to the start of the MAT program

APPLICATION REQUIREMENTS

Students must submit an application to Graduate Admissions within the Office of Admissions, Records, and Registration. Transcripts must be sent to Graduate Admissions.

Graduate Admissions: <http://www.astate.edu/info/admissions/graduate/how-to-apply/>

Once a student has submitted an application through Graduate Admissions, a review of materials will be completed by athletic training faculty.

COURSE REQUIREMENTS

A minimum of 65 graduate course hours are required for the Master of Athletic Training Program.

LICENSURE/CERTIFICATION REQUIREMENTS FOR STUDENT ENTRY INTO THE FIELD

The State of Arkansas requires individuals to possess the national certification by the Board of Certification (BOC) prior to issuing a permanent license to practice athletic training. Students graduating from the MAT program are eligible to take the BOC exam.

ACCREDITATION

The MAT program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). The program received its initial accreditation in 2020.

Athletic Training

Master of Athletic Training

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
AT 5103, Emergency Management of Injury and Illness	3
AT 5203, Athletic Training Techniques	3
AT 5303, Gross Anatomy	3
AT 5403, Principles of Evidence-Based Practice	3
AT 5503, Clinical Education in Athletic Training I	3
AT 5513, Clinical Education in Athletic Training II	3
AT 5606, Orthopedic Assessment	6
AT 5703, Therapeutic Interventions I: Therapeutic Modalities	3
AT 5713, Therapeutic Interventions II: Therapeutic Exercise	3
AT 5723, Therapeutic Interventions III: Therapeutic Rehabilitation and Manual Therapies	3
AT 5804, Pharmacological and Nutritional Considerations in Athletic Training	4
AT 6103, Medical Assessment	3
AT 6403, Athletic Training and Healthcare Administration	3
AT 6506, Clinical Education in Athletic Training III	6
AT 6514, Clinical Education in Athletic Training IV	4
AT 6802, Seminar in Athletic Training	2
AT 6803, Psychology of Sport and Injury	3
AT 6812, Athletic Training Capstone Project	2
AT 6903, Clinical Decision Making in Athletic Training	3
Sub-total	63
Total Required Hours:	63

Program of Study for the Master of Communication Disorders Degree

The Master of Communication Disorders degree program is accredited by the Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (ASHA). This accreditation means that the master's degree program has met or exceeded the rigorous standards set by the CAA. The CAA will continuously monitor the program to ensure that these standards are maintained.

ADMISSION REQUIREMENTS

To be considered for admission to the M.C.D. degree program, applicants must meet the admission requirements of Graduate Admissions and the specific program requirements. However, meeting minimum requirements for admission to graduate study does not necessarily ensure acceptance into the M.C.D. program. The Communication Disorders (CD) program admits students on a competitive, space-available basis.

In order to complete the application process for the Communication Disorders program, the applicant must complete the following:

1. Apply to the Graduate School

Complete and/or gather the following documents:

- Application to Graduate School accompanied by Application Fee
Apply online: https://asups1.astate.edu:4443/prod/bwskalog_P_DisplLoginNon
- Official transcripts of all undergraduate and graduate coursework from all colleges and universities attended. Transcripts must be mailed directly from the institutions previously attended.
- Graduate Record Examination (GRE) scores (must be within 5 years)
- Immunization record including MMR (measles, mumps, and rubella)

Submit to:

Graduate Admissions
Arkansas State University
PO Box 1570
State University, AR 72467

For questions about the above process please contact Graduate Admissions at (870) 972-2031.

2. Apply to the Master of Communication Disorders Program

Complete and/or gather the following documents:

- Current Resume
- Personal statement consisting of 500-1,000 words with attention to the applicant's professional goals, past experiences, and contributions the applicant expects to make in Communication Disorders
- Unofficial copy of transcript. Official transcripts must still be sent to Graduate Admissions.
- Three letters of recommendation/rating forms, which should be from former supervisors and faculty, completed on the program's recommendation forms. All references must be sealed and signed over the seal by the person who wrote the recommendation. This may then be sent to you or sent directly to the program by the evaluator. The rating form is available online here:
<http://www.astate.edu/dotAsset/129b3f8d-2b2b-4d15-92ff-7ecd8c88f02b.pdf>

Submit to:

Arkansas State University
Department of Communication Disorders
PO Box 910
State University, AR 72467

For questions regarding application to the Master of Communication Disorders program please contact the Department of Communication Disorders at (870) 972-3106.

Applications for admission will be considered by the Communication Disorders Admissions and Credits Committee in the weeks following the application deadline.

To be eligible for consideration all applicants must have a complete application file and must meet the admission requirements of Graduate Admissions.

Applicants With Undergraduate Degrees in Majors Other Than Speech-Language Pathology. Applicants with undergraduate degrees in an area other than communication disorders will be considered for admission only after having completed a minimum of 15 semester hours of the 38 credit hours of undergraduate deficiencies specified by the CD program. Applicants must identify the specific year for which they are applying. Such applicants will be considered for admission only after indicating in writing that they understand admission for the targeted year is contingent on their provision of evidence (in the form of official grade slips or an official transcript) of having successfully completed all but one of the core specified deficiency courses. Such evidence must be received prior to the first day of classes for the targeted year. In the event documentation is not provided by that time, the admission decision will be considered null and void. The applicant may, however, re-apply for admission for a subsequent year.

DEADLINE FOR RECEIVING APPLICATIONS

The graduate admission period is the first term of summer school annually, and applications for that admission period are due by February 15 each year.

THE M.C.D. DEGREE

The Master of Communication Disorders degree is offered for the purpose of educating individuals to a high level of competence in the management of speech, hearing, and language disorders. This program provides graduates with the necessary academic and clinical practice requirements for ASHA's Certificate of Clinical Competence (CCC-SLP), licensure to practice speech-language pathology in the State of Arkansas, and the Speech Pathology Certificate issued by the Arkansas Department of Education. Programs will be individually designed to prepare initial entry candidates as well as those with prior training and experience.

COURSE REQUIREMENTS

The Master of Communication Disorders degree consists of a minimum of 49 semester hours beyond the Bachelor's degree including credit for clinical practice. Clinical practice consists of supervised, direct clinical experience approved and supervised by the faculty and licensed clinical supervisors. Each candidate and the adviser will plan and design a program of study to ensure that professional requirements will be met. Deficiencies in undergraduate preparation may be assigned as prerequisites. The successful student is expected to have demonstrated expertise and in-depth knowledge of the normal communication processes, development, and disorders thereof; evaluation procedures to assess the bases of such disorders; and clinical techniques that have been shown to improve or eradicate them. In addition, competency must be demonstrated in the related areas of human anatomy and physiology, psychological dynamics, and research.

ADDITIONAL REQUIREMENTS

All candidates for the M.C.D. degree must take the appropriate PRAXIS II Examination required for licensure in Arkansas and for the Certificate of Clinical Competence (CCC). A copy of the scores must be sent to the Communication Disorders Program Director, College of Nursing and Health Professions, Arkansas State University, P.O. Box 910, State University, AR 72467-0910.

Communication Disorders

Master of Communication Disorders

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Students who select the thesis option may substitute six semester hours of Thesis for CD 6513, Advanced Aural Rehabilitation and CD 6653, Contemporary Issues and Practices in Communication Disorders.	Sem. Hrs.
CD 5751, Clinical Practice I	1
CD 6053, Research in Communication Disorders	3
CD 6113, Fluency Disorders	3
CD 6153, Voice Disorders	3
CD 6243, Motor Speech Disorders	3
CD 6303, Augmentative and Alternative Communication	3
CD 6353, Language Intervention for At-Risk Infants and Toddlers	3
CD 6363, Language and Learning Disorders	3
CD 6503, Intervention in Communication Disorders	3
CD 6513, Advanced Aural Rehabilitation	3
CD 6613, Pediatric Feeding	3
CD 6653, Contemporary Issues and Practices in Communication Disorders	3
CD 6713, Swallowing Disorders	3
CD 6743, Neurogenic Language and Associated Cognitive Disorders	3
CD 6761, Clinical Practice II	1
CD 677V, Clinical Practice III	3
CD 6787, Clinical Practice IV	7
Sub-total	51
Total Required Hours:	51

Program of Study for the Master of Science in Disaster Preparedness and Emergency Management Degree

PROGRAM DESCRIPTION

The Master of Science degree in Disaster Preparedness & Emergency Management (DPEM) is an interdisciplinary degree program that prepares professionals to effectively meet the demands of disaster preparedness, mitigation, planning, response and recovery. The program requires 36 hours of graduate-level courses that include a variety of teaching methodologies and activities. The degree culminates in an internship, research project or thesis.

ADMISSION REQUIREMENTS

Students interested in pursuing a Master of Science in Disaster Preparedness & Emergency Management degree must have a Bachelor's degree in any discipline. Applicants must meet the admission requirements of Graduate Admissions. To apply, obtain an application form from Graduate Admissions. They should send completed application form, required application fee, and official transcripts of all undergraduate and graduate course work to Graduate Admissions. Applicants must schedule a personal interview with an MSDPEM adviser. Venues for the interview can be face-to-face, telephone or electronic. During this interview, the adviser will outline in detail the requirements of the MSDPEM program. The adviser and the student will analyze the appropriateness of the degree consistent with the student's goals and career objectives, the degree's requirements and the student's academic progress to date. Admission to this degree program is conditional upon completion of prerequisite course(s) required and acceptance by clinical agencies for practicum experiences. Admission to the MSDPEM program is conditional upon completion of prerequisite course(s) required.

Students pursuing an undergraduate degree at Arkansas State University may be eligible to apply for admission as an undergraduate to the accelerated masters program. Up to 12 hours of the following courses may be accepted in advance by a DPEM advisor. No more than nine hours may be accepted from the courses with an asterisk:

- *DPEM 5613 Radiological Emergencies
- DPEM 6133 Ethics and Legal Considerations in DPEM
- *DPEM 6213 Informatics in DPEM
- *DPEM 6253 Multi-Agency Response in DPEM
- *DPEM 6543 Pandemic Planning
- *DPEM 6553 Leading Hospital Response to Mass Casualties
- DPEM 6643 Practicum Experience

PREREQUISITES

The United States Government has instituted a National Incident Management System to standardize the country's response to disasters and other emergencies. The Incident Command System (ICS) describes the chain-of-command and organizational structure of managing emergencies. Completion of courses in ICS is required by employers and is necessary to receive reimbursement from the Federal Government when a federal declaration of a disaster has been obtained. Courses in the graduate program build on this foundational knowledge. Therefore, students wishing to be admitted to the MSDPEM degree must have completed these four courses prior to admission. They are offered free of charge, on-line, from the Federal Emergency Management Institute.

The required prerequisite ICS courses include:

- Introduction to Incident Command System (ICS – 100) There are several discipline specific ICS-100 courses. Students need only complete one and should choose the one most relative to their career goals.
- Incident Command System (ICS – 200) for Single Resources and Initial Action Incidents
- Incident Command System (ICS – 700) Introduction to the National Incident Management System
- Incident Command System (ICS – 800) Introduction to the National Response Framework

In addition to the Incident Command System Prerequisites, students must have current Core and Basic Disaster Life Support certifications. Information regarding these certifications can be obtained from the Regional Center for Disaster Preparedness in the College of Nursing and Health Professions, American Medical Association or the National Disaster Life Support Foundation.

MASTER CURRICULUM

The program consists of 36 Credit Hours that includes six Core Courses, three Emphasis Courses, a Practicum Experience, and a Final Project. The six Core Courses are each worth three credit hours (18 total) and the three Emphasis Courses are each worth three credit hours (9 total).

The Practicum Experience is worth three credit hours and students can choose between a Seminar Topics Course or a 60 hour practicum at an approved site. The Final Project is worth six credit hours to be taken in two separate three hour terms. Students may choose between completing a Research Project, a Thesis, or a 240 hour internship at an approved site.

FALL COURSES

- DPEM 6153, Crisis Communication in DPEM
- DPEM 6113, Theory Development in DPEM
- EMPHASIS Course
- EMPHASIS Course, Practicum or Final Project

SPRING COURSES

- DPEM 6123, Research Design and Methodology in DPEM
- DPEM 6143, Global Perspectives in DPEM
- EMPHASIS Course
- EMPHASIS Course, Practicum or Final Project

SUMMER COURSES

- DPEM 6103 - Health Care Issues and Policies related to DPEM
- DPEM 6133 - Ethics and Legal Considerations in DPEM
- EMPHASIS Course
- EMPHASIS Course, Practicum or Final Project

PRACTICUM COURSES (Select 3 hours/offered every term as needed.)

- DPEM 661V, Seminar Topics in DPEM (1-3 credit hours)
- DPEM 6631, DPEM Conference Presentation (1 credit hours)
- DPEM 6643, Practicum Experience (3 credit hours/60 contact hours)

FINAL PROJECT (Select one of the following/offered every term as needed.)

- DPEM 665V, Internship (6 Credit Hours) (240 Contact Hours)
- DPEM 667V, Research (6 Credit Hours)
- DPEM 668V, Thesis (6 Credit Hours)

Note: At least one EMPHASIS course will be offered each 7 weeks. If desired course is not offered when registering student should contact DPEM office to determine when this particular course will be offered.

Disaster Preparedness and Emergency Management

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
DPEM 6103, Health Care Issues and Policies Related to Disaster Preparedness and Emergency Management	3
DPEM 6113, Theory Development in Disaster Preparedness and Emergency Management	3
DPEM 6123, Research Design and Methodologies in Disaster Preparedness and Emergency Management	3
DPEM 6133, Ethics and Legal Considerations in Disaster Preparedness and Emergency Management	3
DPEM 6143, Global Perspectives in Disaster Preparedness and Emergency Management	3
DPEM 6153, Crisis Communication in Disaster Preparedness and Emergency Management	3
Select one of the following: DPEM 665V, Final Project Internship in DPEM DPEM 667V, Final Project Research in DPEM DPEM 668V, Final Project Thesis in DPEM	6
Sub-total	24
Emphasis Requirements:	Sem. Hrs.
Select nine hours from the following: DPEM 5613, Radiological Emergencies DPEM 6213, Informatics in Disaster Preparedness and Emergency Management DPEM 6223, Epidemiology of Disasters DPEM 6253, Multi-Agency Response in Disaster Preparedness and Emergency Management DPEM 6273, Vulnerable Populations in Disasters DPEM 6543, Pandemic Planning DPEM 6553, Leading Hospital Response to Mass Casualties	9
Practicum (select three hours from the following): DPEM 661V, Seminar Topics in Disaster Preparedness and Emergency Management DPEM 6631, Disaster Preparedness and/or Emergency Management Conference Presentation DPEM 6643, Practicum Experience	3
Sub-total	12
Total Required Hours:	36

Program of Study for the Doctor of Nursing Practice Degree

The Doctor of Nursing Practice (DNP) is offered as a post-masters nursing degree. The practice focused doctoral program will prepare nursing leaders for the highest level of clinical nursing practice. The DNP Program reflects the DNP Standards and Essentials as described by the American Association of the Colleges of Nursing (AACN), the Accreditation Commission for Education in Nursing (ACEN), and the National League for Nursing Accrediting Commission (NLNAC).

ADMISSION REQUIREMENTS

Admission requirements include an advanced practice degree (i.e. Nurse Practitioner, Certified Nurse Midwife, Clinical Nurse Specialist, Nurse Anesthetist). Students must be board certified in advanced practice nursing with licensure as APRN in their state of practice. Additional admission requirements may be found on the College of Nursing and Health Professions website at <http://www.astate.edu/college/conhp/departments/nursing>. Completing admission requirements does not ensure acceptance into the DNP program due to the competitive process.

APPLICATION DEADLINES

Application deadline is May 1st each year to begin study in the spring semester. Students may acquire detailed information about the application process and pre-requisite courses by contacting the School of Nursing at 870-972-3074 or visiting the website at <http://www.astate.edu/college/conhp/departments/nursing>.

COURSE REQUIREMENTS

The post-masters's Doctor of Nursing program requires full-time study. The curriculum of 41 credit hours, includes three clinical internship courses requiring 540 clinical clock hours.

Nursing Practice

Doctor of Nursing Practice

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Minimum number of Clinical Clock Hours = 540	
Summer, Year 1	Sem. Hrs.
NURS 8113, Theoretical Foundations for Doctor of Nursing Practice	3
NURS 8133, Epidemiology for the DNP	3
Sub-total	6
Fall, Year 1	Sem. Hrs.
NURS 8143, Healthcare Finance in Advanced Nursing	3
NURS 8153, Healthcare Informatics in Advanced Nursing	3
Sub-total	6
Spring, Year 2	Sem. Hrs.
NURS 8123, Leadership, Policy, and Healthcare Systems	3
NURS 8213, Translational Research for Doctor of Nursing Practice I	3
Sub-total	6
Summer, Year 2	Sem. Hrs.
NURS 8314, Introduction to Internship <i>1 credit = 45 clock hours (180)</i>	4
NURS 8163, The Principles Healthcare Ethics and Genetics	3
Sub-total	7
Fall, Year 2	Sem. Hrs.
NURS 8223, Translational Research for Doctor of Nursing Practice II	3
NURS 8323, Doctor of Nursing Practice Clinical Internship I <i>1 credit = 45 clock hours (135)</i>	3
Sub-total	6
Summer, Year 2	Sem. Hrs.
NURS 8235, Doctor of Nursing Practice Evidence Based Project	5
NURS 8335, Doctor of Nursing Practice Clinical Internship II <i>1 credit = 45 clock hours (225)</i>	5
Sub-total	10
Total Required Hours:	41

Program of Study for the Master of Science in Nursing Degree

The M.S.N. program prepares nurses with the complex practice skills and theoretical knowledge necessary for advanced nursing practice in the contemporary health care system. Graduate study in nursing is the basis for professional growth in advanced practice roles and the foundation for doctoral study in nursing.

The Master of Science in Nursing Program is accredited by the Accreditation Commission for Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850 Atlanta, Georgia 30326, Telephone 404-975-5000, Fax 404-975-5020).

The program is designed for individuals who hold the Bachelor of Science in Nursing degree. Students who have successfully completed the B.S.N. can apply for the program. The total number of credits per semester may not exceed 15. A Graduate Information Guide (GIG) is available that explains policies and requirements unique to the graduate nursing program. All students on admission are required to attend orientation to the MSN program. All MSN students are required to earn a minimum of "B" in all courses before progression in the curriculum.

MSN students are required to successfully complete a comprehensive exam during their final semester of study. Students selecting thesis must be continuously enrolled in thesis credits until graduation. Students considering doctoral education are strongly encouraged to select the thesis option.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Nursing program must meet the admission requirements of Graduate Admissions and the specific program requirements. Completed Graduate Admissions application forms and School of Nursing application forms must be received in Graduate Admissions by the deadline specific to each program for applicants seeking admission for full- or part-time study. Visit the A-State Graduate Admissions website <http://www.astate.edu/info/admissions/graduate>, for admission requirements and application deadlines.

Applicants to the (Adult Gerontology Acute Care Nurse Practitioner option) MSN program complete the application process to the School of Nursing, including submission of the MSN application form and a personal interview. All students on admission are required to attend orientation to the MSN program. The MSN application form and admission requirements may be found on the School of Nursing website, <http://www.astate.edu/college/conhp/departments/nursing/>. Students are offered admission to their selected specialty only. Should the student desire to change specialty focus, the procedure and requirements may be found on the website.

Applicants to the (Family Nurse Practitioner, Nurse Educator, or Nurse Administration) must apply at <https://admissions.astate.edu/apply/>.

In addition to the general requirements for graduate degrees conferred by Graduate Programs, applicants to the M.S.N. program must:

- Hold a Bachelor of Science in Nursing (BSN) from an ACEN or CCNE accredited program of nursing from a regionally accredited college or university.
- Have a minimum Cumulative Grade Point Average of 3.0 (4.0 scale) overall to be considered for acceptance to the Nurse Educator or Nurse Administration option/certificate.
- Have a minimum overall Cumulative Grade Point Average of 3.25 (4.0 scale) to be considered for acceptance to the Family Nurse Practitioner or the Adult Gerontology Acute Care Nurse Practitioner option/certificate.
- Hold a current, unencumbered license to practice as a Registered Nurse. The unencumbered RN license must be active in the state where clinical practice is scheduled or a compact state.
- Individuals admitted pending NCLEX-RN examination results are required to withdraw from the program at the end of the first semester if the examination is not passed.

The individual may reapply for admission upon successful completion of the licensing examination.

- Provide verification documentation of 1,500 RN practice hours prior to admission to the FNP option

Evidence of the following is required before registering for each clinical course or practicum.

1. CPR certification (professional level) valid through the academic year.
2. TB skin test/chest x-ray valid through the academic year.
3. Evidence of Hepatitis B immunization or signed declination statement.
4. Evidence of Influenza vaccination.
5. Copy of professional liability insurance. Minimum 1,000,000/3,000,000.
6. Copy of unencumbered RN license valid in the state of practice.
7. Verified Credentials

CRIMINAL BACKGROUND CHECKS

Arkansas law requires that applicants for licensure, including advanced practice licensure, submit to criminal background checks. Students graduating and planning on applying for advanced practice licensure should submit applications four (4) to six (6) months in advance of graduation in order to allow time for processing.

MAJOR IN NURSING

The following options are available for the MSN in Nursing program:

- **Family Nurse Practitioner/Adult Gerontology Acute Care Nurse Practitioner**

The Family Nurse Practitioner (FNP) and Adult Gerontology Acute Care Nurse Practitioner (AG ACNP) Concentrations prepare nurses with the complex practice skills and theoretical knowledge necessary for roles in advanced nursing and leadership in the contemporary health care system. Graduate study in nursing is the basis for professional growth in advanced practice roles and the foundation for doctoral study in nursing.

- **Nurse Administrator**

The Nurse Administrator Concentration prepares graduates as Nurse Executives, Administrators and Managers. The courses include leadership and management, healthcare law and quality assurance, and budgeting/financial management in the health care setting.

- **Nurse Educator**

In the Nurse Educator Concentration students are prepared in curriculum development, teaching/learning strategies and measurement/evaluation in education.

MAJOR IN NURSE ANESTHESIA

The MSN in Nurse Anesthesia program prepares registered nurses for entry into nurse anesthesia practice. Upon completion of the program, graduates are eligible to take the national certification examination administered by the National Board for Certification and Re-certification of Nurse Anesthetists. Satisfactory performance is necessary in order to practice as a Certified Registered Nurse Anesthetist.

Nursing

Master of Science in Nursing Family Nurse Practitioner Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
NURS 6103, Research Design and Methodology	3
NURS 6203, Theory Development in Nursing	3
NURS 6303, Health Care Issues and Policy	3
NURS 6402, Professional Role Development in Advanced Nursing	2
Sub-total	11
Support Courses:	Sem. Hrs.
NURS 6003, Advanced Clinical Physiology	3
NURS 6013, Advanced Clinical Pharmacology	3
NURS 6023, Advanced Assessment and Diagnostic Evaluation	3
Sub-total	9
Advanced Practice Courses:	Sem. Hrs.
NURS 6513, FNP Clinical Management I	3
NURS 6514, Clinical Management I Practicum	4
NURS 6613, FNP Clinical Management II	3
NURS 6614, FNP Clinical Management II Practicum	4
NURS 6753, FNP Clinical Synthesis Seminar	3
NURS 6814, FNP Clinical Synthesis	4
Sub-total	21
Total Required Hours:	41

Nursing

Master of Science in Nursing Adult Gerontology Acute Care Nurse Practitioner Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
NURS 6103, Research Design and Methodology	3
NURS 6203, Theory Development in Nursing	3
NURS 6303, Health Care Issues and Policy	3
NURS 6402, Professional Role Development in Advanced Nursing	2
Sub-total	11
Support Courses:	Sem. Hrs.
NURS 6003, Advanced Clinical Physiology	3
NURS 6013, Advanced Clinical Pharmacology	3
NURS 6023, Advanced Assessment and Diagnostic Evaluation	3
Sub-total	9
Advanced Practice Courses:	Sem. Hrs.
NURS 6213, AG ACNP Seminar I	3
NURS 6214, AG ACNP Practicum I	4
NURS 6363, AG ACNP Seminar II	3
NURS 6364, AG ACNP Practicum II	4
NURS 6483, AG ACNP Seminar III	3
NURS 6484, AG ACNP Practicum III	4
Sub-total	21
Total Required Hours:	41

Nursing

Master of Science in Nursing Nurse Administrator Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
NURS 6103, Research Design and Methodology	3
NURS 6203, Theory Development in Nursing	3
NURS 6303, Health Care Issues and Policy	3
NURS 6402, Professional Role Development in Advanced Nursing	2
Sub-total	11
Support Courses:	Sem. Hrs.
NURS 6003, Advanced Clinical Physiology	3
NURS 6013, Advanced Clinical Pharmacology	3
NURS 6023, Advanced Assessment and Diagnostic Evaluation	3
NURS 6762, Applied Clinical Research and Role Seminar	2
HP 5113, Leadership in Health Professions	3
HP 6323, Healthcare Law and Quality Improvement	3
NURS 6353, Budgeting and Financial Management	3
NURS 687V, Healthcare Management Seminar	3-6
Sub-total	23-26
Total Required Hours:	34-37

Nursing

Master of Science in Nursing Nurse Educator Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	
	Sem. Hrs.
NURS 6103, Research Design and Methodology	3
NURS 6203, Theory Development in Nursing	3
NURS 6303, Health Care Issues and Policy	3
NURS 6402, Professional Role Development in Advanced Nursing	2
Sub-total	11
Support Courses:	
	Sem. Hrs.
NURS 6003, Advanced Clinical Physiology	3
NURS 6013, Advanced Clinical Pharmacology	3
NURS 6023, Advanced Assessment and Diagnostic Evaluation	3
HP 6043, Measurement and Evaluation in Health Sciences	3
NURS 6623, Curriculum Development in Health Professions	3
NURS 6713, Practicum in Nursing Education	3
NURS 6853, Teaching in Advanced Nursing Roles	3
Sub-total	21
Total Required Hours:	32

Nurse Anesthesia

Master of Science in Nursing

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
NURS 6023, Advanced Assessment and Diagnostic Evaluation	3
NURS 6042, Technology and Equipment for Nurse Anesthesia	2
NURS 6043, Regional Anesthesia and Analgesia	3
NURS 6103, Research Design and Methodology	3
NURS 6113, Anesthesia Pharmacology I	3
NURS 6123, Anesthesia Pharmacology II	3
NURS 6203, Theory Development in Nursing	3
NURS 6223, Anatomy, Physiology and Pathophysiology I	3
NURS 6233, Anatomy, Physiology and Pathophysiology II	3
NURS 6243, Anesthesia Pharmacology III	3
NURS 6253, Anatomy, Physiology and Pathophysiology III	3
NURS 6311, Clinical Practicum I	1
NURS 6322, Clinical Practicum II	2
NURS 6333, Clinical Practicum III	3
NURS 6346, Clinical Anesthesia Practicum IV	6
NURS 6413, Advanced Chemistry and Physics Related to Anesthesia	3
NURS 6423, Professional Aspects of Nurse Anesthesia	3
NURS 6523, Basic Principles of Anesthesia I	3
NURS 6533, Advanced Principles of Anesthesia I	3
NURS 6543, Advanced Principles of Anesthesia II	3
NURS 6553, Advanced Principles of Anesthesia III	3
NURS 6723, Synthesis Seminar I	3
NURS 6736, Clinical Internship I	6
NURS 6773, Synthesis Seminar II	3
NURS 6787, Clinical Internship II	7
NURS 6797, Clinical Internship III	7
Sub-total	88
Total Required Hours:	88

Program of Study for the Doctor of Nursing Practice in Nurse Anesthesia Degree

The Doctor of Nursing Practice (DNP) in Nurse Anesthesia is offered as a traditional face-to-face program as a post Registered Nurse nursing degree. The practice-focused doctoral program will prepare registered nurses for the nurse anesthesia role at the highest level of clinical nursing practice. The DNP in Nurse Anesthesia program reflects the Council on Accreditation of Nurse Anesthesia Educational Programs' Practice Doctoral Standards, American Association of the Colleges of Nursing (AACN) DNP Essentials, and the Accreditation Commission for Education in Nursing.

ADMISSION REQUIREMENTS

Admission requirements include an unencumbered professional registered nurse license, a BSN, a minimum GPA of 3.0 and 1 year of critical experience as a professional RN. Additional admission criteria can be found online at: <http://www.astate.edu/college/conhp/departments/nursing>

APPLICATION DEADLINES

Application deadline is October 1st each year to begin study in the summer semester. Students may acquire detailed information about the application process and pre-requisite courses by contacting the School of Nursing at 870-680-8187 or visiting the website at <http://www.astate.edu/college/conhp/departments/nursing>

COURSE REQUIREMENTS

The DNP in Nurse Anesthesia requires full-time study and completion of the degree prior to being eligible to sit for the National Board of Certification and Recertification of Nurse Anesthetist's National Certifying Examination. Students must be registered nurses (RN) who hold an unrestricted RN license and a minimum of a bachelor's of science in nursing (BSN) degree for admission. The curriculum is 36 months in duration, 114 credit hours with 2,880 clinical clock hours over 9 semesters.

Nurse Anesthesia

Doctor of Nursing Practice

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Summer, Year 1	Sem. Hrs.
NURS 8113, Theoretical Foundations for DNP	3
NURS 8123, Leadership, Policy and Healthcare System	3
NURS 8403, Physical and Biophysical Sciences in Anesthesia Practice	3
NURS 8414, Advanced Clinical Anatomy for Anesthesia Practice	4
Sub-total	13
Fall, Year 1	Sem. Hrs.
NURS 8143, Healthcare Finance	3
NURS 8413, Advanced Pharmacology I for Anesthesia Practice	3
NURS 8423, DNP Advanced Physiology and Pathophysiology I	3
NURS 8434, Principles of DNP Anesthesia Practice I	4
NURS 8153, Informatics	3
Sub-total	16
Spring, Year 1	Sem. Hrs.
NURS 8133, Epidemiology and Population Health	3
NURS 8213, Translational Research for DNP I	3
NURS 8424, Advanced Pharmacology II for Anesthesia Practice	4
NURS 8433, DNP Advanced Physiology and Pathophysiology II	3
NURS 8444, Principles of DNP Anesthesia Practice II	4
Sub-total	17
Summer, Year 2	Sem. Hrs.
NURS 6023, Advanced Assessment and Diagnostic Evaluation	3
NURS 8163, Principles of Healthcare Ethics and Genetics	3
NURS 8451, Orientation to DNP Anesthesia Clinical Practice*	1
NURS 8454, Principles of DNP Anesthesia Practice III	4
Sub-total	11
Fall, Year 2	Sem. Hrs.
NURS 8003, Principles of Curriculum: Design, Instruction and Evaluation	3
NURS 8508, DNP Anesthesia Practicum I	8
NURS 8223, Translational Research for DNP II	3
Sub-total	14
Spring, Year 2	Sem. Hrs.
NURS 8601, DNP Project Development	1
NURS 861V, DNP Anesthesia Practicum II*	10
Sub-total	11

Nurse Anesthesia (cont.)

Doctor of Nursing Practice

Summer, Year 3	
NURS 8702, DNP Project Implementation	2
NURS 871V, DNP Anesthesia Practicum III*	10
Sub-total	12
Fall, Year 3	
NURS 8802, DNP Project Evaluation	2
NURS 8808, DNP Anesthesia Practicum IV*	8
Sub-total	10
Spring, Year 3	
NURS 891V, DNP Anesthesia Practicum V*	10
Sub-total	10
Total Required Hours:	114

Graduate Certificate in Family Nurse Practitioner

Family Nurse Practitioner Certificate is available to RNs who have recent clinical experience and have completed a MSN with advanced preparation in another specialty area from an accredited institution. Graduates of a MSN program with a FNP option that did not include the required certification eligibility requirements from the American Nurses Credentialing Center (ANCC) and/or the American Academy of Nurse Practitioners (Advanced Physiology/Pathophysiology; Advanced Health Assessment, including diagnostics and disease management; Advanced Pharmacology; and/or minimum of 500 faculty supervised clinical hours) are also eligible to apply. A request for a curriculum "Gap Analysis" to determine an individual Plan of Study will be requested from the Program Coordinator prior to admission.

Family Nurse Practitioner

Post Masters Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Requirements:	Sem. Hrs.
NURS 6003, Advanced Clinical Physiology	0-3
NURS 6013, Advanced Clinical Pharmacology	0-3
NURS 6023, Advanced Assessment and Diagnostic Evaluation	0-3
Sub-total	0-9
Advanced Practice Courses:	Sem. Hrs.
NURS 6513, FNP Clinical Management I	3
NURS 6514, Clinical Management I Practicum	4
NURS 6613, FNP Clinical Management II	3
NURS 6614, FNP Clinical Management II Practicum	4
NURS 6753, FNP Clinical Synthesis Seminar	3
NURS 6814, FNP Clinical Synthesis	4
Sub-total	21
Total Required Hours:	21-30

Graduate Certificate in Adult Gerontology Acute Care Nurse Practitioner

Graduate Certificate in Adult Gerontology Acute Care Nurse Practitioner is available to RNs who have recent clinical experience and have completed a MSN with advanced preparation in another specialty area from an accredited institution. Graduates of a MSN program with a AGACNP option that did not include the required certification eligibility requirements from the American Nurses Credentialing Center (ANCC) and/or the American Association of Critical-Care Nurses (AACN) (Advanced Physiology/Pathophysiology; Advanced Health Assessment, including diagnostics and disease management; Advanced Pharmacology; and/or minimum of 500 faculty supervised clinical hours) are also eligible to apply. A request for a curriculum "Gap Analysis" to determine an individual Plan of Study will be requested from the Program Coordinator prior to admission.

Adult Gerontology Acute Care Nurse Practitioner

Post Masters Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Requirements:	Sem. Hrs.
NURS 6003, Advanced Clinical Physiology	0-3
NURS 6013, Advanced Clinical Pharmacology	0-3
NURS 6023, Advanced Assessment and Diagnostic Evaluation	0-3
Sub-total	0-9
Advanced Practice Courses:	Sem. Hrs.
NURS 6213, AG ACNP Seminar I	3
NURS 6214, AG ACNP Practicum I	4
NURS 6363, AG ACNP Seminar II	3
NURS 6364, AG ACNP Practicum II	4
NURS 6483, AG ACNP Seminar III	3
NURS 6484, AG ACNP Practicum III	4
Sub-total	21
Total Required Hours:	21-30

Graduate Certificate in Nurse Administration

Students seeking a certificate as a Nurse Administrator may complete the required 15-18 credit hours without being admitted to the Master of Science in Nursing program or may complete as a Post Graduate Certificate with completion of the MSN degree in another option. This Nurse Administrator Certificate will prepare nurses for Nursing Administration and eligibility for Certification by American Nurses Credentialing Center (ANCC) and /or American Organization of Nurse Executives (AONE).

Nurse Administration

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Requirements:	Sem. Hrs.
HP 5113, Leadership in Health Professions	3
HP 6323, Healthcare Law and Quality Improvement	3
NURS 6303, Health Care Issues and Policy	3
NURS 6353, Budgeting and Financial Management	3
NURS 687V, Healthcare Management Seminar	3-6
Sub-total	15-18
Total Required Hours:	15-18

Graduate Certificate in Nurse Educator

Students seeking a certificate as a Nurse Educator may complete the required 12 credit hours without being admitted to the Master of Science in Nursing program or may complete as a Post Graduate Certificate with completion of the MSN degree in another option. This Nurse Educator Certificate will prepare nurses for formal and informal teaching of nurses, patients, and students, in the healthcare or academic environment.

Nurse Educator

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
HP 6043, Measurement and Evaluation in Health Sciences	3
NURS 6623, Curriculum Development in Health Professions	3
NURS 6713, Practicum in Nursing Education	3
NURS 6853, Teaching in Advanced Nursing Roles	3
Sub-total	12
Total Required Hours:	12

Program of Study for the Doctor of Occupational Therapy

Both the Occupational Therapy Doctorate (OTD) and the Occupational Therapy Assistant (OTA) programs are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Blvd, Suite 200, North Bethesda, MD 20852-4929. ACOTE's telephone number c/o AOTA is (301) 652-6611 and its Web address is www.acoteonline.org.

MISSION

The Department of Occupational Therapy in the College of Nursing and Health Professions at Arkansas State University is committed to the development of exceptionally safe, ethical and culturally aware practitioners, life-long learners, advocates, leaders, and scholars who will focus on the unique needs of local communities, the state of Arkansas and the lower Mississippi Delta region and beyond.

VISION

We envision graduates from the Department of Occupational Therapy at Arkansas State University who are leaders that possess the knowledge and skills to advocate for and implement occupational therapy services that improve the health, well-being and quality of life of those served in the Mississippi delta and surrounding regions.

CURRICULUM OUTCOMES

Upon completion of the Occupational Therapy Doctorate Program at Arkansas State University, graduates will:

1. Use professional reasoning to name and frame clinical situations in order to provide evidence and occupation-based interventions.
2. Develop and carry out entry-level scholarship.
3. Provide intervention that is ethically, socially, economically, politically, and environmentally relevant to individuals and populations in the lower Mississippi delta region and beyond.
4. Understand the roles and responsibilities of OTA and OT practitioners to create collaborative partnerships in all settings.
5. Develop prevention, health and wellness programs for local, state, and regional populations.
6. Use cultural awareness strategies to administer appropriate interventions for all persons.
7. Promote the vision of Occupational Therapy as a diverse, equitable and inclusive profession.
8. Apply leadership program development and assessment knowledge and skills to develop and implement a capstone doctoral experience.
9. Understand and apply the core competencies of intra and interprofessional practice.
10. Understand how social determinants of health can contribute to both occupational deprivation and occupational justice.

Arkansas State University is committed to uphold the highest standards of professionalism, education, and ethics. The Occupational Therapy Department will follow all requirements set forth by the Accreditation Council for Occupational Therapy Education (ACOTE) and the American Occupational Therapy Association (AOTA).

ADMISSIONS REQUIREMENTS

Admission information and deadlines regarding the Doctor of Occupational Therapy program can be found at <http://www.astate.edu/college/conhp/departments/occupational-therapy/>

Occupational Therapy

Doctor of Occupational Therapy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Fall, Year 1	Sem. Hrs.
OTD 5013, OT History, Language and Process	3
OTD 5053, Occupation, Health and Wellness	3
OTD 5061, Introduction to Documentation	1
OTD 5082, Scholarly Inquiry I	2
OTD 5113, Gross Anatomy and Neuroscience	3
OTD 5163, Clinical Reasoning and Skills I	3
Sub-total	15
Spring, Year 1	Sem. Hrs.
OTD 5103, OT Philosophy and Theory	3
OTD 5273, Clinical reasoning and skills II	3
OTD 6112, Orthopedics Practice	2
OTD 6154, Older Adult Practice	4
OTD 6162, Scholarly Inquiry II	2
OTD 6172, Fieldwork I: Older Adults	2
Sub-total	16
Summer, Year 1	Sem. Hrs.
OTD 6074, Neurorehabilitation Practice	4
OTD 6123, Clinical Reasoning and Skills III	3
OTD 6262, Fieldwork I: Neurorehabilitation	2
OTD 7212, Health Care and Social Systems	2
Sub-total	11
Fall, Year 2	Sem. Hrs.
OTD 6113, Psychosocial Practice	3
OTD 6152, Fieldwork I: Psychosocial	2
OTD 6302, Intra and Interprofessional Practice	2
OTD 6332, Scholarly Inquiry III	2
OTD 7271, Capstone Preparation I	1
OTD 7343, OT Instructional Design	3
Sub-total	13
Spring, Year 2	Sem. Hrs.
OTD 6174, Pediatric and Adolescent Practice	4
OTD 6202, Fieldwork I: Pediatrics	2
OTD 6273, Clinical Reasoning and Skills IV	3
OTD 7122, Scholarly Inquiry IV	2
OTD 7123, Population Health Practice	3
OTD 7281, Capstone Preparation II	1
Sub-total	15

Occupational Therapy (cont.)

Doctor of Occupational Therapy

Summer, Year 2	Sem. Hrs.
OTD 625V, Level II Fieldwork	12
Fall, Year 3	Sem. Hrs.
OTD 720V, Level II Fieldwork	12
Spring, Year 3	Sem. Hrs.
OTD 7103, Culturally Competent Practice	3
OTD 7232, Advocacy and Leadership	2
OTD 7342, Program Development & Assessment	2
OTD 7312, Scholarly Inquiry V	2
OTD 7333, OT Business Principles	3
Sub-total	12
Summer, Year 3	Sem. Hrs.
OTD 726V, Capstone	4
OTD 726V, Level III Fieldwork: Doctoral Rotation	10
Sub-total	14
Total Required Hours:	120

Program of Study for the Doctor of Physical Therapy

The Doctor of Physical Therapy (DPT) is the preferred degree by the Commission on Accreditation in Physical Therapy Education (CAPTE) and the American Physical Therapy Association's (APTA) and it reflects the current level of study that is required to meet the latest standards for physical therapy education.

ADMISSION REQUIREMENTS

Admissions requirements include an earned bachelor's degree in a related field, acceptance to A-State, Graduate Programs, satisfactory completion of pre-requisite courses and Graduate Record Examination (GRE).

No specific field of study is required for the bachelor's degree. Students are encouraged to select undergraduate majors consistent with their individual abilities and interests; however, the required courses in some majors such as biology and exercise science are more consistent with the specific DPT prerequisites. Students in other majors may have to complete more credit hours than the minimum required for graduation. Applicants must have an overall GPA score of 3.0 or higher to apply. The overall GPA includes concurrent high school, undergraduate and graduate credits.

Completing admission requirements does not ensure acceptance into the DPT program as students are admitted on a competitive space-available basis. Prior to admissions, students must verify they meet the Technical Skills and Ability for the program and successfully pass background checks.

Applicants must complete all pre-requisite courses with a letter grade of B or higher for the DPT program. Pre-requisite courses include:

- Medical Terminology (1 to 3 credits - Must be taken from an accredited college or university)
- Statistics (3 credits)
- General Physics I (4 credits - Must include lab)
- General Physics II (4 credits - Must include lab)
- Anatomy & Physiology I (4 credits - Must include lab)
- Anatomy & Physiology II (4 credits - Must include lab)

APPLICATION PROCESS

Arkansas State University's DPT program subscribes to the Physical Therapist Centralized Application Service (PTCAS). Applicants for admission to the A-State DPT program MUST apply online 1) using the PTCAS application, and 2) to the A-State Graduate School. Transcripts must be sent to both PTCAS and the A-State Graduate School.

To learn more about the PTCAS application process and to get started, please go to the <https://portal.ptcas.org/>. Information about the A-State Graduate School application is included as "supplemental material" on the PTCAS website. If you encounter difficulty with PTCAS, please contact their Customer Service at 617-612-2040 or ptcasinfo@ptcas.org.

Once a student submits an application through PTCAS, the transcript information is verified by PTCAS. This process takes time and depends both on the efficiency of PTCAS and the speed with which schools respond to the inquiries from PTCAS. A-State will accept completed, verified applications from PTCAS until March 1st.

If PTCAS has not completed the verification process by March 1st, the application will not be considered, even if it was submitted by the February 1st deadline. Therefore, applicants are strongly encouraged to submit their applications well before the deadline to ensure that the verification process will be completed by the deadline.

GRADUATE RECORD EXAM (GRE)

The DPT program requires the GRE scores for admissions. Students must send GRE Scores to PTCAS (CODE #4108) and A-State Graduate School (Code #6011).

SPANISH PROFICIENCY

Spanish proficiency is not required for admissions. However, individuals with Spanish proficiency can earn up to 5 points based on Oral Proficiency Interview (OPI) in the admissions scoring process. Students will submit OPI results to the A-State Graduate School and through PTCAS. Students may get additional information on OPI using the following link: <https://www.languagetesting.com/ltiapi/index/products/>.

The Department of Physical Therapy will begin reviewing applications after March 1st.

APPLICATION DEADLINES

The application deadline is February 1st each year. Students may acquire detailed information about the application process and pre-requisite courses by contacting the Department of Physical Therapy at 870-972-3591 or visiting the department's website at <http://www.astate.edu/conhp/pt>.

Our program uses a rolling admissions process from August until January 31st. Admission is awarded for applicants who score > 80 using the admissions scoring criteria listed on the program's website (<http://www.astate.edu/college/conhp/degrees/degree-details.dot?mid=e3ca7087-e029-48ec-8e76-bf031e71f16b>).

THE D.P.T. DEGREE AND PHYSICAL THERAPY LICENSURE

The D.P.T. is the entry-level degree for the practice of physical therapy. The curriculum associated with the degree prepares graduates for physical therapy practice while paying particular to the health and rehabilitation concerns of residents of the Delta region. Licensure to practice physical therapy is granted by the individual states and issued on scores obtained on the National Licensing Examination administered by the Federation of State Boards of Physical Therapy. Graduation from an accredited educational program is a prerequisite to sit for the licensing exam. The DPT program at A-State is accredited by the Commission on Accreditation of Physical Therapy Education.

COURSE REQUIREMENTS

The DPT consists of 106 semester credit. The courses are a mixture of didactic and clinical learning experiences including several sections of extended weeks of full time clinical education. The sequence of courses appears below.

ADDITIONAL REQUIREMENTS

All students in the Graduate Program in Physical Therapy at A-State must pass a comprehensive examination in the Fall of Year 3 prior to graduation.

Physical Therapy

Doctor of Physical Therapy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Summer, Year 1	
PT 7116, Gross Anatomy	6
PT 7511, Professional Issues	1
Sub-total	7
Fall, Year 1	
PT 7313, Human Physiology	3
PT 7213, Movement Science	3
PT 7224, Neuroscience	4
PT 7231, Imaging for Physical Therapist	1
PT 7534, Clinical Procedures: Introductory Test, Measures, Interventions	4
Sub-total	15
Spring, Year 1	
PT 7211, Therapeutic Exercise: Introduction	1
PT 7123, Intro to Research and Evidence Based Practice	3
PT 7521, Fundamentals of Patient Care	1
PT 7724, Integumentary and Physical Agents	4
PT 8245, Musculoskeletal I	5
Sub-total	14
Summer, Year 2	
PT 7733, Clinical Education I	3
PT 7753, Clinical Exercise Physiology	3
Sub-total	6
Fall, Year 2	
PT 7141, Research I	1
PT 7251, Pharmacology for the Physical Therapists	1
PT 7413, Pathophysiology & Differential Diagnosis	3
PT 7444, Cardiopulmonary	4
PT 8143, Neuromuscular I	3
PT 8272, Professional Issues in PT II	2
Sub-total	14
Spring, Year 2	
PT 7252, Psychosocial Issues	2
PT 7311, Therapeutic Exercise II: Reinforcement	1
PT 7832, Healthy Ager Interprofessional Education	2
PT 8151, Research II	1
PT 8255, Musculoskeletal II	5
PT 8653, Neuromuscular II	3
PT 8754, Neuromuscular III	4
Sub-total	18

Physical Therapy (cont.)

Doctor of Physical Therapy

Summer, Year 3	
PT 8163, Clinical Education II	3
PT 8263, Clinical Education III	3
Sub-total	6
Fall, Year 3	
PT 7343, Administration	3
PT 8211, Therapeutic Exercise III: Mastery	1
PT 8571, Research III	1
PT 8573, Special Topics in Physical Therapy	3
PT 8674, Musculoskeletal III	4
PT 8774, Neuromuscular IV	4
PT 8872, Clinical Decision Making	2
PT 8191, Culminating Experience	1
Sub-total	19
Spring, Year 3	
PT 8585, Clinical Education IV	5
PT 8685, Clinical Education V	5
Sub-total	10
Total Required Hours:	
	109

Program of Study for the Master of Social Work Degree

The MSW program at Arkansas State University-Jonesboro was granted initial accreditation by CSWE in October 2011. This accreditation includes the academic years 2008-2009 to October 2015.

The MSW offers one concentration which is rural based clinical social work practice. Students learn the fundamental knowledge, skills, values and ethics that guide social work practice and the populations traditionally served by the profession. Students are prepared to acknowledge and utilize the less formal social exchanges between people and systems that exist in rural communities. Students learn how to identify and develop resources, and how to use natural helping networks. Students are expected to employ a broad range of approaches, theories and models in their practice and to develop skills that enable them to perform multiple roles in the helping process. Additionally, students learn the importance of examining issues related to diversity and social work values and ethics; as well as how to identify, prevent and interrupt social and economic injustice, and the importance of community empowerment.

ADMISSION REQUIREMENTS

Students seeking admission to the MSW program must possess a bachelor's degree from a regionally accredited college or university. There are two program options. The requirements for each program follow.

1. Standard Program: This option is available to applicants who received their bachelor's degree in any discipline or who graduated from a CSWE accredited BSW program more than six years ago and any other student who does not meet requirements for the Advanced Program. For admission to the Standard Program, students must have a cumulative grade point average of 3.0 or better on a 4.0 scale for the last 60 hours of undergraduate degree work. If the applicant has a master's degree from an accredited institution, his or her graduate GPA may be considered. Under exceptional circumstances, applicants with a GPA of less than 3.0 may be considered for Conditional Admission Status to the Standard Program. Any student granted Conditional Admission Status will be advanced to Unconditional Admission Status at such time as the student completes 12 graduate semester hours, has a minimum 3.00 GPA on these 12 hours, with no more than one course in the 12 hours with a grade of "C", and meets unconditional or program admission requirements. All students admitted to the Standard Program must successfully complete the Foundation Curriculum and the Concentration Curriculum.

2. Advanced Program: Available only to applicants who graduated from a CSWE accredited BSW program within six years of the application date. Persons admitted to the Advanced Program complete only the Concentration Curriculum. For admission to the Advanced Program, students must have a 3.2 or better on a 4.0 scale in the last 60 credit hours of the BSW degree. There is no conditional admission to the Advanced Program.

APPLICATIONS DEADLINES

Deadlines for applying to the Advanced and Standard Programs will be posted on the MSW website. The admission period for the Advanced Program will be the first summer term of that year. The admission period for the Standard Program will be for the fall term of that year.

APPLICATION REQUIREMENTS

1. Graduate Admissions Application.
2. A bachelor's degree from a regionally accredited college or university (official transcripts must be provided).
3. Three completed Department of Social Work Graduate Admission Applicant Reference Forms from individuals who can objectively assess the student's potential for graduate work (i.e., Field Supervisor, Field Liaison, Faculty, Co-worker, Other Professional).

4. For persons seeking admission into the Standard Program the following prerequisites must be completed with a grade of "C" or better prior to applying: American Government, Human Biology, Human Biology Laboratory, Introduction to Psychology, Introduction to Sociology, Social Statistics and Introduction to Social Work (undergraduate or graduate).
5. Computer literacy demonstrated through prior course work (Web-based classes or Computer Class).
6. A Personal and Professional Orientation statement (See the MSW website application information for details).
7. Current resume.

COURSE REQUIREMENTS

Minimum hours required for each program:

- 33 graduate course hours is required for the Advanced Program (Concentration Curriculum only)
- 60 graduate course hours is required for the Standard Program (Foundation Curriculum and Concentration Curriculum)

Social Work

Master of Social Work

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Foundation Curriculum:	Sem. Hrs.
SW 5003, Human Behavior and the Social Environment I	3
SW 5023, Foundations of Social Work Practice I	3
SW 5043, Foundations of Social Work Practice II	3
SW 5053, Social Welfare Policy and Services	3
SW 5063, Social Justice and Diversity	3
SW 5333, Human Behavior and the Social Environment II	3
SW 5803, Foundation Field I	3
SW 5813, Foundation Field II	3
Social Work Elective	3
Sub-total	27
Concentration Curriculum:	Sem. Hrs.
SW 6003, Psychopathology for Social Workers	3
SW 6013, Social Work Ethics	3
SW 6023, Social Work Evaluation and Research	3
SW 6033, Clinical Practice with Individual	3
SW 6053, Clinical Practice with Groups	3
SW 6063, Social Work Policy Analysis	3
SW 6083, Trauma Focused Practice	3
SW 6093, Service and Leadership	3
SW 6803, Advanced Field I	3
SW 6813, Advanced Field II	3
Social Work Elective	3
Sub-total	36
Total Required Hours:	63

Graduate Certificate in Addiction Studies

The curriculum for this certificate program is designed for social work majors. It will equip practitioners in the assessment and treatment of addictions. The application of evidence based practice and the 12-step planned change process of recovery is the focus of the curriculum.

Addiction Studies

Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Requirements:	Sem. Hrs.
SW 5323, Substance Abuse and Dependence Interventions	3
SW 6003, Psychopathology for Social Workers	3
SW 6033, Clinical Practice with Individuals	3
SW 6053, Clinical Practice with Groups	3
SW 6323, Clinical Interventions with Substance Abuse & Dependence	3
Select one of the following options:	6
Option 1: SW 6803, Full-Time Advanced Field I SW 6813, Full-Time Advanced Field II	
Option 2: SW 6821, Part-Time Advanced Field I SW 6822, Part-Time Advanced Field II SW 6831, Part-Time Advanced Field III SW 6832, Part-Time Advanced Field IV	
Sub-total	21
Total Required Hours:	21

College of Sciences and Mathematics

MISSION

The College of Sciences & Mathematics prepares students to assume their places as knowledgeable, ethical, and problem-solving leaders by providing foundational and advanced studies in mathematics and the physical and natural sciences. A partnership among students, staff, and the faculty anchors the mission of the College of Sciences & Mathematics to expand and disseminate knowledge. The research, scholarship, creative endeavors, and professional activities of this College are intrinsically valuable and fundamental to teaching and learning throughout the University, and relevant to the Mississippi River Delta and globally.

Accordingly, the College acknowledges its responsibility and is actively committed to:

- freedom of thought, inquiry, and expression;
- supporting and rewarding the research, scholarship, creative endeavors, and professional activities of our faculty, staff, and students;
- supporting and rewarding effective teaching and bettering ourselves as teachers;
- recruiting, training, and retaining a highly-skilled and professional staff;
- providing the finest possible research and teaching facilities, beginning with the library, and including computer, classroom, and laboratory technology.

PROGRAMS OF STUDY

Master of Arts:
Biology

Master of Science:
Biology
Chemistry
Environmental Sciences
Molecular Biosciences
Mathematics
Statistics

Master of Science in Education:
Biology
Chemistry
Mathematics

Doctor of Philosophy:
Environmental Sciences
Molecular Biosciences

Program of Study for the Doctor of Philosophy in Environmental Sciences Degree

The mission of the program is to produce scientists with the knowledge needed to support the assessment, maintenance and recovery of environmental resources. This includes an appreciation of the economic, social, political and aesthetic context that shapes our interaction with and knowledge of the environment. Measuring and understanding the balance between environmental protection, sustainable resource management, and economic growth is a major integrating theme within the program.

As a reflection of the interdisciplinary nature of the program, a course of study will be tailored to each student's own scholarly interests, research, and proposed career direction. The specific quantity and content of each student's course of study will require approval by the student's Doctoral Advisory Committee. General course requirements are outlined below and in the section of this Bulletin entitled Program of Study for the PhD in Environmental Sciences. Applicants are advised that admission to Graduate Programs does not imply admission to the PhD in Environmental Sciences Program.

ADMISSION REQUIREMENTS

Applicants to the PhD Graduate Program in Environmental Sciences Program must hold a baccalaureate degree (BA, BS) and preferably a master's degree (MA, MS) from an accredited institution in a relevant field of study. Applicants must submit the following to Graduate Admissions:

1. A completed application for admission to the Graduate Program in Environmental Sciences. Applicants are encouraged to submit the application no later than February 15th for the fall semester and July 15th for the spring semester. Applicants should apply online at: <http://www.astate.edu/graduate>.
2. A nonrefundable application fee. PhD application fee is \$50.00. This can be paid online as part of the application or a check can be mailed to the A-State Treasurer's Office with the applicant's name and date of birth in the memo line. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate Admissions will hold all application materials and notify the applicants that no action will be taken until payment is received. International students may utilize a check or an International Postal Money Order to remit payment in the U.S. currency.
3. One copy of official transcripts of all previous undergraduate and graduate course work attempted, to be sent directly from the institution(s) previously attended. Graduate Admissions will compute the graduate GPA by counting all graduate courses completed, including any repeated courses. Applicants need to meet the admission requirements of Graduate Admissions. Applicants should be aware that the breadth of the course work in this program demands that students have a basic background in several disciplines. Preparatory courses for this program may include:

Mathematics: Calculus I as well as an applied statistics course or second semester Calculus course.

Chemistry: A first and second semester chemistry course sequence.

Biology: A first and second semester biology course sequence.

Earth Science: A first and second semester earth science course sequence.

Economics: An introductory level economics course.

Political Science: American government, United States history or world history.

Students should contact the Program Director for details regarding course requirements for specific focus areas within the program. Students lacking the appropriate courses for their chosen focus area can be admitted into the program but may be required to complete preparatory course work before enrolling in specific graduate core courses. In some cases, the Environmental Sciences Graduate Program Committee may agree to substitute equivalent, documented work experience in the environmental field

for specific courses, and in rare cases, the criteria for admission. Contact the Program Director for questions in these matters. Acceptance into the program will be made by the Environmental Sciences Program Committee.

4. Three letters of recommendation to be reviewed by the Environmental Sciences Graduate Program Committee.
5. Scores from the Graduate Record Examination are required. A score of 150 on both the verbal and quantitative tests are recommended for acceptance.
6. International student applicants must demonstrate a satisfactory level of proficiency in the English language if English is not their native language. To do so, applicants must submit a score of 213 computer based on the Test of English as a Foreign Language or must satisfactorily complete advanced level II of the university's Center for English as a Second Language program.
7. Statement of Purpose (Maximum of two pages). In essay form, state your reasons for undertaking graduate study in the Environmental Sciences. Please describe your qualifications and your objectives in undertaking this program. Applicants should clearly outline their research interests. We are interested in how the applicant's interests would complement those research interests of the faculty. Applicants should discuss their plans for their academic and professional career and how the Graduate Program in Environmental Sciences will help them attain their goals. Applicants should also contact faculty they would like to work with and describe in the statement of purpose what faculty member would be a good candidate to be their advisor.
8. Resume or C.V. List all colleges and universities attended, major extracurricular activities, and employment, detailing particularly those relevant to your proposed field of study, any honors or prizes awarded, and publication and research projects with which you have been associated.

PROGRAM INFORMATION

Substitution of equivalent courses may be made upon the recommendation of the doctoral advisory committee with the approval of the Environmental Sciences Program Committee. In addition, each student will normally take courses in their specialty area sufficient to bring the total number of credits to the minimum of 72 required for the PhD in Environmental Sciences beyond the bachelor's degree or 42 beyond the master's degree. Any additional course work requirements will be determined by the Doctoral Advisory Committee to meet the student's specific program needs. Each candidate for the PhD in Environmental Sciences must execute an original and rigorous research project culminating in the completion and defense of a dissertation.

DOCTORAL ADVISORY COMMITTEES

Each student is expected to identify a doctoral advisory committee chair during the first year of their program of study. The Doctoral Advisory Committee will consist of members of the graduate faculty and other professionals as deemed appropriate and approved by the Director of Environmental Sciences. Each committee must have at least five members with at least one member of the natural and social sciences. Committee membership is subject to approval by the Environmental Sciences Program Director and must be a member of the graduate faculty. The Doctoral Advisory Committee is to review the student's dissertation proposal and to provide guidance toward the successful completion of the research project.

Membership of advisory committees may be changed if either the student or a member of their committee feels that such a change is appropriate and the requested change is approved by the Environmental Sciences Program Director and Dean of the College of Sciences and Mathematics. Such a change will not be approved except in clearly unusual circumstances.

A Doctoral Advisory Committee chair must be a member of the graduate faculty and must be approved to direct the research of graduate students by the Environmental Sciences Program Director, and the Dean and Graduate Council.

GENERAL PROGRAM OF STUDY

A program of study, to be developed by the student in consultation with the Doctoral Advisory Committee, is to be submitted to the Director of the Environmental Sciences Program for approval no later than the end of the second semester after admission to the program. Programs of study may change to meet course requirements and match the student's academic goals, scholarly aspirations and career preparation needs. Each Doctoral Advisory Committee will meet at least once a year to review and provide a record of the student's progress.

SATISFACTORY PROGRESS

Students are required to earn a grade of "B" or better in the core courses. A single grade of "C" will be accepted for courses in the focus area. A second instance of a grade of "C" or a single instance of a grade below "C" will be cause for the review of the student's status within the program by the Environmental Sciences Program Committee. After such review, the Environmental Sciences Program Committee may recommend the student enter the Master's of Science program in Environmental Sciences or dismissal of the student from the program.

TIME TO DEGREE

A minimum of six semesters of graduate study beyond the baccalaureate degree is required. All requirements for the degree must be completed within eight calendar years of admission to the program. Requirements subsequent to admission to candidacy must be completed within four calendar years of admission to candidacy. A student exceeding the time limit may be required to repeat the qualifying examination, replace out-of-date credits with up-to-date ones, and/or show other evidence of being current within both the core curriculum and the student's area of specialization. Extension of the eight-year requirement will be granted only if a student has obtained prior approval from his or her Doctoral Advisory Committee, the Environmental Sciences Graduate Program Committee and the Graduate School.

RESIDENCE REQUIREMENT

One year of full-time residence at Arkansas State University normally will be required. This requirement may be waived under special circumstances if approved by the student's Doctoral Advisory Committee, the Environmental Sciences Program Committee and the Arkansas State University Graduate School.

QUALIFYING EXAMINATION

These examinations are required by the Program, but take a variety of forms in the case of individual students. The practice requirement is determined by the student's choice of specialty area and the student's advisory committee and approval by the Director of the Graduate Program in Environmental Sciences. The goal of these examinations is to assess the students preparedness for doctoral level study and assess the students potential in their chosen field. The examination may be written or oral in part or in whole. The subject(s) of the examination may include core course work and /or work relevant to the students specialty area. One examination, typically oral, is taken in a core course area outside of the students specialty area. The second can be oral or written in part or whole in the specialty area (administered by the Doctoral advisory committee or portion thereof) or in a second non-specialty core discipline. Possible outcomes of these examinations are (i) pass, (ii) fail with option to retake (one time only) the examination, or (iii) fail. Students who fail initially or after the second attempt will be reclassified to the MS Program and will be re-considered for the PhD Program only under extraordinary circumstances. It should be noted that there is a Program requirement that ten calendar weeks must pass before a retake of either or both of the qualifying examinations may be scheduled. These examinations must be taken prior to the end of the fourth semester in residence.

DISSERTATION PROPOSAL

Each PhD student must pass the oral research proposal defense examination. Possible outcomes of the first examination are i) pass, ii) fail with option to retake (one time only) the examination, or iii) fail. The oral defense of the research proposal occurs after successful completion of the qualifying examination. Students who have not defended their proposal by end of their fifth semester or who have not passed by the end of their sixth semester will no longer be in good standing in the PhD Program. They will be reclassified into the MS program and will be reconsidered for the PhD program only under extraordinary circumstances. It should be noted that there is a Program requirement that ten calendar weeks must pass before a retake of the oral proposal defense examination may be scheduled.

It is imperative that each student register the time and date of the oral proposal defense with the Environmental Sciences Program two weeks in advance of the proposal defense seminar. Announcements of the public portion of the proposal defense must be posted a minimum of two weeks in advance of the presentation. The timing of this examination should be in coordination with the student's advisory committee.

ADMISSION TO CANDIDACY

A student may apply for admission to candidacy upon successful completion of the qualifying examination and defense of the dissertation proposal. A student may not apply for candidacy while on probation or with a GPA of less than 3.00. Doctoral students, upon reaching PhD candidacy (passing both qualifying examinations, oral proposal defense and examination, and completing the core course requirements (9 hours of core, 6 hours of statistics, 1 or 3 hours of research ethics, 2 hours of topical seminar, 2 hours of environmental seminar) are granted an MS in Environmental Science provided that they have met the requirements above. Students who intend to earn an MS in Environmental Sciences must complete an Intent to Graduate Form in the semester they will attain candidacy. This form is available online through Self Service.

COMPREHENSIVE EXAMINATION

The comprehensive examination is designed to test general knowledge of environmental science as well as the student's expertise in specialized areas of research and interest. The examination consists of a mandatory oral component and an optional written component. Students intending to take comprehensive examinations must submit an intent form to the program office at the beginning of the semester in which they intend to take the examination.

Students will have not more than eight hours to complete their answers to the questions. The oral examination is conducted by the student's Doctoral Advisory Committee. In case of failure, the examination may be retaken if the committee feels that additional study is justified and the student continues such studies for an additional period of time as specified by the committee. A second failure will result in dismissal from the program.

CONTINUOUS ENROLLMENT

Students must maintain continuous enrollment subsequent to passing the qualifying examination. They must maintain a minimum of one semester hour of dissertation during each regular semester, including at least one summer term each year, until the final dissertation has been approved and submitted to Arkansas State University.

DISSERTATION DEFENSE

After the research is completed, the student will submit a draft of the dissertation to his or her advisory committee. Upon the recommendation of the committee, the candidate will arrange with the chair of his or her advisory committee to schedule and conduct a presentation of the results.

The candidate will also be required to orally defend the dissertation before the Doctoral Advisory Committee, members of the faculty, students, and interested persons. Arrangements for the dissertation defense will be made through the Environmental Sciences Program Office. Students are advised to be aware of the deadlines set by the Environmental Sciences Program and the Registrar for submission of defense results and dissertations.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

The defense must occur at least four weeks before the date of graduation. A successful defense receives no more than one negative vote by the members of the Doctoral Advisory Committee. Failure of the defense requires a one semester probation before a second defense can be scheduled. A second failure of the defense constitutes elimination from the program.

DEADLINE FOR SUBMISSION

The completed dissertation must follow the format requirements of Graduate Programs as contained in the Guide to Dissertations and Theses: Preparation and Electronic Submissions. Before submission online, the completed dissertation must be approved by the advisory committee. Candidates will also be responsible for the preparation of an abstract of the dissertation, not to exceed 350 words, which will be submitted with the completed dissertation.

The student is required to purchase three copies of the bound dissertation for the A-State Library, the Environmental Sciences Program office, and the dissertation advisor.

CHECKLIST FOR THE LAST SEMESTER BEFORE GRADUATION

In the last semester before graduation, candidates must:

- register for the graduation fee.
- file an Intent to Graduate Form with the Office of the Registrar by the relevant deadline.
- complete the oral defense of the dissertation.
- submit the dissertation by the relevant deadline.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

Environmental Sciences

Doctor of Philosophy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	Sem. Hrs.
Environmental Chemistry/ Soil and Water Science (select one of the following): CHEM 5043, Environmental Chemistry GEOG 5633, Climatology PSSC 5713, Soil Quality Assessment and Interpretation PSSC 5813, Soil Fertility PSSC 5853, Soil and Water Conservation	3
Environmental Policy, Law & Economics (select one of the following): ECON 6353, Environmental Economics POSC 5533, Environmental Law and Administration POSC 6173, Environmental Policy Processes	3
Interdisciplinary Environmental Studies (select one of the following): AGRI 6243, Environmental Sustainability BIO 5613, Conservation Biology BIO 6623, Case Studies in Ecosystem Management AND BIO 6621, Case Studies in Ecosystem Management Lab ESCI 6303, Global Water Issues	3-4
Sub-total	9-10
Additional Requirements:	Sem. Hrs.
Select four hours from the following: <i>Two hours in Topical Seminar required</i> ESCI 7111, Environmental Science Seminar ESCI 7121, Topical Seminar in Environmental Sciences	4
Ethics and Responsible Conduct in Research (select one of the following): ESCI 7151, Responsible Conduct in Research BIO 5063, Biosafety and Ethics in Research	1-3
Statistics (select two of the following courses or course/lab combinations): AGRI 6213, Experimental Designs AGRI 5233, Experimental Agricultural Statistics BIO 6684, Biological Data Analyses BIO 6603, Environmental Systems Analysis AND BIO 6601, Environmental Systems Analysis Lab STAT 6613, Nonparametric Statistics STAT 6623, Statistical Methods with SAS Programming STAT 6643, Multivariate Analysis STAT 6653, Data Analysis I: Regression Analysis STAT 6663, Data Analysis II: Analysis of Variance (ANOVA) STAT 6673, Design of Experiments STAT 6633, Biostatistics	6-7
Sub-total	11-14
Specialty Area:	Sem. Hrs.
Each student will normally take courses in their specialty area sufficient to bring the total number of credits to the minimum of 72 required for the Ph.D. in Environmental Sciences beyond the bachelor's degree or 42 beyond the master's degree. Any additional course work requirements will be determined by the Doctoral Advisory Committee to meet the student's specific program needs.	-
Dissertation:	Sem. Hrs.
ESCI 889V, Dissertation	18
Total Required Hours:	42-72

Program of Study for the Doctor of Philosophy in Molecular Biosciences

PROGRAM DESCRIPTION

The cross-disciplinary Molecular Biosciences field is revolutionizing discovery and technological advances in disciplines ranging from agriculture to medicine, from forensics to environmental sciences, from food sciences to renewable energy. The Molecular Biosciences Doctoral Program provides training and research opportunities that integrate molecular, genomic, cellular and developmental information, with a strong emphasis on interdisciplinary approaches, state-of-the-art technologies and innovations addressing real world problems.

The mission of the program is to produce scientists with sufficient background and training to advance the field of Molecular Biosciences. Molecular Biosciences addresses classical and contemporary problems in biology through creative integration of molecular, genomic, cellular and developmental research areas. Among other topics Molecular Biosciences research may include the study of biomolecular interactions, the engineering and design of metabolic pathways to produce bioactive molecules, bioinformatics, discovery and development of novel biomaterials, and process development and scale-up.

ADMISSION REQUIREMENTS

Students seeking admission into the Doctor of Philosophy in Molecular Biosciences Program must meet the admission requirements of Graduate Admissions in addition to the Program's specific requirements.

Each applicant must have a minimum of a BS in a basic or applied science, although preference may be given to MS level applicants. Some required MBS courses have prerequisites which must be met in order to succeed in these classes. These courses may include general and organic chemistry, biochemistry, introductory biological science, and cellular biology. Based on previous undergraduate coursework, students may be required to pass one or more of these prerequisite courses before attempting graduate level study in this field.

In addition to official transcripts, applicants must also provide official Graduate Record Examination scores for the Verbal, Analytical and Quantitative tests. Scores from the Graduate Record Examination showing a score of 150 on both the verbal and quantitative tests or a combined score of 1000 on the verbal and quantitative sections for scores that used the old scoring system are the minimum requirements. Although not required, scores from an advanced test related to Molecular Biosciences may increase a candidate's chance for admission. Once the basic Graduate Admissions application requirements are met, applications will be forwarded to the Molecular Biosciences Program Committee for their consideration and determination for student admission. Applicants are advised that admission to Graduate Programs does not imply admission to the Molecular Biosciences PhD Program. Other materials required of MBS applicants are three strong letters of recommendation, a current curriculum vitae and a statement of research interests that includes identification of possible faculty mentors the applicant would like to work with. Foreign applicants must also meet the requirements of the Office of International Programs.

ADMISSION TO THE PHD IN MOLECULAR BIOSCIENCES DEGREE PROGRAM

Applicants to the PhD in Molecular Biosciences Program must have a minimum of a BS in a basic or applied science, although preference may be given to MS level applicants. Applicants must submit the following to Graduate Admissions by February 15th for consideration for Fall admission and by July 15th for consideration for Spring admission:

1. A completed application for admission to the A-State Graduate Programs (or to the Office of International Programs for international students). Forms are available directly from Graduate Admissions and Office of International Programs.
2. One copy of official transcripts of all previous undergraduate and graduate coursework attempted, to be sent directly from the institution(s) previously attended. Graduate Ad-

missions will compute the graduate GPA by counting all graduate courses completed, including any repeated courses.

3. Three letters of recommendation to be reviewed by the Molecular Biosciences Program Committee.
4. A personal statement (maximum of two pages) describing the student's academic and research goals. Applicants are encouraged to identify areas of research interest as well as possible research mentors within the faculty of the Molecular Biosciences Program.
5. Graduate Record Examination (GRE) scores for the Verbal, Analytical and Quantitative tests. Scores from the Graduate Record Examination showing a score of 150 on both the verbal and quantitative tests or a combined score of 1000 on the verbal and quantitative sections for scores that used the old scoring system are the minimum requirements. Although not required, scores from an advanced test related to Molecular Biosciences may increase a candidate's chance for admission.
6. A current copy of curriculum vitae.
7. A \$50 nonrefundable application fee. This can be paid online as part of the application or a check can be mailed to the A-State Treasurer's Office with the applicant's name and date of birth in the memo line. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate Admissions will hold all materials and notify the applicants that no action will be taken until payment is received. International students may use a check or an International Postal Money Order to remit payment in U.S. currency.
8. International student applicants must demonstrate a satisfactory level of proficiency in the English language if English is not their native language.

PROGRAM INFORMATION

All candidates for a PhD degree in Molecular Biosciences are required to complete or have completed the specified core courses and elective courses, or their equivalent, as directed by the student's Doctoral Advisory Committee. All candidates must attend every Molecular Biosciences Seminar when in residence on campus. Each PhD student must complete a minimum of 15 hours of Molecular Biosciences approved course work (including the specified 9 credits in Core Technical courses, 1 credit in Responsible Conduct in Research and 4 credits from the Techniques in Molecular Biosciences course). Students must also take the Seminar in Molecular Biosciences every semester, except the last semester of their study, plus a minimum of 18 hours of dissertation research credits along with any other academic studies required by the student's Doctoral Advisory Committee. The committee may alter or require additional academic work as it deems appropriate to meet the student's specific program needs. The committee will also provide a written plan of study by semester for each student.

Any additional coursework requirements will be determined by the Doctoral Advisory Committee to meet the student's specific program needs. Each candidate for the PhD in Molecular Biosciences must execute an original and rigorous research project culminating in the completion and defense of a dissertation.

GRADUATE STUDENT SUPPORT

Any university support, whether as a Graduate Teaching Assistant or as a Graduate Research Assistant, will be awarded competitively through the Molecular Biosciences Program Committee. Students may also be supported from faculty research grants.

DOCTORAL ADVISORY COMMITTEES

During the first year of their program of study, each student is expected to identify a Doctoral Advisory Committee Chair to direct the research of the student and who must be approved by the Director of the Molecular Biosciences Program and by the Program Committee. In addition to the chair, the Doctoral Advisory Committee will consist of members of the graduate faculty and other professionals as deemed appropriate and approved by the Molecular Biosciences Program Committee, the Molecular Biosciences Program director and the Dean. Each committee must have at least four members. The Doctoral Advisory Committee is to review the student's dissertation proposal, administer the Qualifying and Candidacy Exams and provide guidance toward the successful completion of the research project.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

Students in the program without a designated committee chair during their first semester will be assigned an interim adviser by the Director of the Molecular Biosciences Program. The primary role of the interim adviser will be to establish a tentative curriculum for the student, pending establishment of the Doctoral Advisory Committee. An interim adviser may serve for a maximum of one year until a permanent advisory committee chair is selected.

Membership of Advisory Committees may be changed if either the student or a member of their committee feels that such a change is appropriate and the requested change is approved by the Molecular Biosciences Program Committee and the Director of the Molecular Biosciences Program. Such a change will not be approved except in clearly unusual circumstances. If approval is given, the student will be notified in writing by Graduate Admissions.

GENERAL PROGRAM OF STUDY

A program of study, to be developed by the Doctoral Advisory Committee in consultation with the student, is to be submitted to the Director of the Molecular Biosciences Program for approval no later than one calendar year after admission to the program. As a reflection of the interdisciplinary nature of the program, a course of study will be tailored to each student's own scholarly interests, research, and proposed career direction. General course requirements are outlined on the Molecular Biosciences home page under "Program of Study for the PhD in Molecular Biosciences".

Each Doctoral Advisory Committee will meet once every six months and when not possible at least once a year to review and provide a written report of the student's progress that the student should include for their annual review by the director of the program.

SATISFACTORY PROGRESS

Students are required to earn a grade point average of "B" or better. A single instance of a grade below "C" will be accepted and a second instance of a grade of "C" or a single instance of a grade below "C" will be cause for the review of the student's status within the program by the Molecular Biosciences Program Committee. After such review, the Program Committee may recommend dismissal of the student from the program.

TIME TO DEGREE

A minimum of 72 graduate credits beyond the baccalaureate degree or 45 graduate credits beyond the master's degree is required. All requirements for the degree must be completed within six calendar years of admission to the program. Requirements subsequent to admission to candidacy must be completed within four calendar years of admission to candidacy.

A student exceeding the time limit may be required to repeat the qualifying examination, replace out-of-date credits with up-to-date ones, and/or show other evidence of being current within both the core curriculum and the student's area of specialization. Extension of the six-year requirement will be granted only if a student has obtained prior approval from his or her Doctoral Advisory Committee, the Molecular Biosciences Program Committee and the Arkansas State University Graduate Programs.

QUALIFYING EXAMINATION

The student's Doctoral Advisory Committee will administer a Qualifying Examination as one means of assessing a student's preparedness for doctoral level study. This exam will consist of the student's written dissertation proposal which is then orally defended. The student may be required to take additional academic work at the discretion of the committee. All dissertation research proposals must be approved by the student's Doctoral Advisory Committee through the mechanism of a dissertation proposal seminar. It is the responsibility of the student to file an announcement of the seminar with the program office at least two weeks in advance of the seminar. The seminar will be an open forum. The candidate will be notified in writing of the committee's approval. If required by the committee, the candidate may hold a second seminar in order to meet the committee's approval. This exam must be taken during the third semester, and successfully completed no later than the end of the fourth semester.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

ADMISSION TO CANDIDACY

A student may apply for admission to candidacy upon successful completion of the Qualifying Examination and defense of the dissertation proposal. A student may not apply for candidacy while on probation or with a GPA of less than 3.00.

CANDIDACY EXAMINATION

The Candidacy Examination is designed to assess a student's ability to develop and defend a hypothesis-driven research proposal outside the area of the student's thesis project. The selected topic must be approved by the student's Doctoral Advisory Committee. The format of the proposal will follow that of either NSF or NIH guidelines or another federal agency approved by the student's Doctoral Advisory Committee. The seminar will include an open forum and, if required, may involve a second seminar in order to meet with the Doctoral Advisory Committee's approval. This exam must be completed within one year after passing the Qualifying Exam.

DISSERTATION DEFENSE

After the research is completed, the student will submit a draft of the dissertation to his or her Doctoral Advisory Committee. Upon the recommendation of the Committee, the candidate will arrange with the chair of the Doctoral Advisory Committee to schedule and conduct a presentation of the results.

The candidate will also be required to orally defend the dissertation before the Doctoral Advisory Committee, the Director of the Molecular Biosciences Program, members of the faculty, students and interested persons. Arrangements for the dissertation defense will be made through the Molecular Biosciences Program Office, but announced by the Registrar. Students are advised to be aware of the deadlines set by the Registrar for submission of defense results and dissertations.

The defense must occur at least four weeks before the date of graduation. A successful defense receives no more than one negative vote by the members of the Doctoral Advisory Committee. Failure of the defense requires a one semester probation before a second defense can be scheduled. A second failure of the defense results in elimination from the program.

DEADLINE FOR SUBMISSION

The completed dissertation must follow the format requirements of Graduate Programs as contained in the Guide to Dissertations and Theses: Preparation and Electronic Submissions (<http://www.astate.edu/college/graduate-school/files/Guide-to-Theses-and-Dissertations-09-2017.pdf>). Before submission online, the completed dissertation must be approved by the advisory committee. Candidates will also be responsible for the preparation of an abstract of the dissertation, not to exceed 350 words, which will be submitted with the completed dissertation.

The student is required to purchase three copies of the bound dissertation for the A-State Library, the Molecular Biosciences program office, and the dissertation advisor.

CHECKLIST FOR THE LAST SEMESTER BEFORE GRADUATION

In the last semester before graduation, candidates must:

- register for graduation and pay the fee.
- file an Intent to Graduate Form with the registrar's office through the MBS Program office by the relevant deadline.
- complete the oral defense of the dissertation.
- submit the dissertation by the relevant deadline.

Molecular Biosciences

Doctor of Philosophy

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
Ethics and Responsible Conduct in Research (select one of the following): MBS 7151, Responsible Conduct in Research BIO 5063, Biosafety and Ethics in Research	1-3
MBS 6213, Advanced Cell Biology	3
MBS 6233, Specialized Biochemistry	3
MBS 6243, Molecular Genetics and Genomics	3
MBS 6251, Techniques in Molecular Biosciences (four semesters)	4
MBS 7111, Seminar in Molecular Biosciences <i>Must be taken each semester until candidacy is reached, or a minimum of 4 semesters if candidacy is reached early</i>	4
MBS 7251, Mentored Teaching	1
Sub-total	-
Doctoral Academic Studies:	
	Sem. Hrs.
Coursework requirements will be determined by the Doctoral Advisory Committee to meet the student's specific program needs.	-
Dissertation:	
	Sem. Hrs.
MBS 889V, Dissertation	18
Total Required Hours:	45-72

Program of Study for the Master of Arts in Biology Degree

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Arts degree program in Biology must meet the admission requirements of Graduate Admissions and the specific program requirements. In addition, applicants for the M.A. Program in Biology will be evaluated by the department for academic qualification based upon their undergraduate academic record, score on the Graduate Record Examination, and letters of reference. Specific requirements include:

1. A minimum of 18 undergraduate hours in the biological sciences and an undergraduate grade point of 2.75 or greater (on a 4.0 scale). Students judged to be deficient in some areas of undergraduate preparation might be assigned certain undergraduate prerequisite courses.
2. A recommended Graduate Record Exam (GRE) combined verbal and quantitative score of 290.
3. Three letters of reference.
4. A statement of educational objectives and career goals.

Applicants not meeting all of the above departmental criteria may be admitted on a conditional basis if they meet Graduate Admissions admission requirements.

Biology Master of Arts

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
BIO 6001, Biological Seminar	1
BIO 6003, Scientific Methods and Research Design	3
6000-level Biological Sciences electives (at least two courses)	-
6000-level electives	-
BIO 6371, Practicum I AND BIO 6372, Practicum II <i>Three hours, as approved by the graduate committee. A major and minor scholarly project must be completed that encompasses the scope of the program of study.</i>	3
Procedures, Tool and Statistics courses, as approved by graduate committee.	3-4
Sub-total	19-20
Electives:	Sem. Hrs.
Elective courses in biology or graduate elective courses as approved by graduate committee, as needed to complete 36 hours.	16-17
Total Required Hours:	36

Program of Study for the Master of Science in Biology

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science degree program in Biology must meet the admission requirements of Graduate Admissions and the specific program requirements.

In addition, applicants for the M.S. program in Biology will be evaluated by the department for academic qualification based upon their undergraduate academic record, score on the Graduate Record Examination, and letters of reference. Specific requirements include:

1. A minimum of 18 undergraduate hours in the biological sciences and an undergraduate grade point of 2.75 or greater (on a 4.0 scale). Students judged to be deficient in some areas of undergraduate preparation may be assigned certain undergraduate prerequisite courses.
2. A recommended GRE combined verbal and quantitative score of 295.
3. Three letters of reference.
4. A statement of educational objectives and career goals.

Applicants not meeting all of the above departmental criteria may be admitted on a conditional basis if they meet Graduate Admissions admission requirements. A candidate for the Master of Science degree in Biology must fulfill a research tool requirement in addition to completing the 30 hours required for the degree.

Biology Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
BIO 6003, Scientific Methods and Research Design	3
BIO 638V, Thesis	6
6000-level Biological Sciences electives (at least two courses)	-
Procedures, Tool and Statistics courses, as approved by graduate committee.	3-4
Sub-total	-
Electives:	Sem. Hrs.
Elective courses in biology or graduate elective courses as approved by graduate committee, as needed to complete 33-34 hours.	-
Total Required Hours:	33-34

Program of Study for the Master of Science in Chemistry

ADMISSION REQUIREMENTS

Along with the admission requirements of Graduate Admissions, students entering the graduate program in Chemistry must take the general GRE and have a minimum score of 300. In addition, students that do not have an undergraduate degree in Chemistry must take the GRE chemistry subject exam. All students must submit a transcript and give two choices of focus area interests (to be designated by the department faculty). Examples of focus areas: Inorganic synthesis, spectroscopy, biochemistry, etc.

Applications will be reviewed by the department Graduate Program Committee, which will make recommendations on acceptance, acceptance with deficiencies or non-acceptance. A letter of acceptance/ denial will be sent to students. If the student has deficiencies, these will be noted along with the expected increase in length of time necessary to complete the degree.

Upon arrival, all students will be given qualifying exams to determine proficiency in the areas of Analytical, Inorganic, Organic and Physical Chemistry. Students scoring below a minimum score will be expected to take remediation in the area by repeating undergraduate courses in that area with a grade of C or better. These courses will not count as graduate credit. Students scoring above the minimum but less than the optimum score on the exam will be required to take the respective core course. Those scoring above the optimum score may test out of the respective core course (see below).

Chemistry

Master of Science Thesis Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
CHEM 6353, Advanced Analytical Chemistry	3
CHEM 6393, Advanced Organic Chemistry	3
CHEM 6403, Advanced Inorganic Chemistry	3
CHEM 6433, Advanced Physical Chemistry	3
CHEM 689V, Thesis <i>May only be taken once a research advisor has been chosen.</i>	6
Sub-total	18
Electives:	
No more than six hours of graduate courses with a prefix other than CHEM may be applied toward the MS degree.	Sem. Hrs.
Electives (as determined by student's thesis committee) selected from the following: <i>Independent Study and Special Topics courses may only be taken once a research advisor has been chosen.</i> Graduate Research in Chemistry (may be repeated for up to 9 hours credit) Special Topics: Research in (specialty area) Chemistry (3 hours) Independent Study (3 hours) Biochemistry Pharmacology Instrumentation Inorganic Chemistry Environmental Chemistry EVS or MBS courses	12
Total Required Hours:	30

Chemistry

Master of Science Non-Thesis Option

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
CHEM 6353, Advanced Analytical Chemistry	3
CHEM 6393, Advanced Organic Chemistry	3
CHEM 6403, Advanced Inorganic Chemistry	3
CHEM 6433, Advanced Physical Chemistry	3
Sub-total	12
Electives: No more than six hours of graduate courses with a prefix other than CHEM may be applied toward the MS degree. Students completing the MS non-thesis option must pass a comprehensive exam in the last semester of study.	Sem. Hrs.
Electives (as determined by Graduate Program Committee) selected from the following: Biochemistry Pharmacology Instrumentation Inorganic Chemistry Environmental Chemistry Special Topics EVS or MBS courses Summer Research Internship <i>A student may apply to a research lab for 6 hours of summer research credit which may count as six of the elective hours. Can only be taken once.</i>	18
Total Required Hours:	30

Program of Study for the Master of Science in Environmental Sciences Degree

As a reflection of the interdisciplinary nature of the program, a course of study will be tailored to each student's own scholarly interest, research, and proposed career direction. The specific quantity and content of each student's course of study will acquire approval by the student's Master's Advisory Committee. General course requirements are outlined below and in the section of this Bulletin entitled Program of Study for the MS in Environmental Sciences. Applicants are advised that admission to the Graduate Programs does not imply admission to the MS in Environmental Sciences Program.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in degree program in Environmental Sciences must meet the admission requirements of Graduate Admissions and the specific program requirements. The Environmental Sciences master's degree program accepts students with a variety of undergraduate and graduate majors, including the humanities, social sciences, natural sciences, and engineering. Preparation for the required program coursework should include the following courses:

Mathematics: applied statistics and introductory calculus.

Sciences: three quarters or two semesters in any combination of chemistry, biology, physics, earth science, or atmospheric science. At least one semester/quarter must be in chemistry.

Students lacking some of this preparation may be accepted for admission, but expected to address such deficiencies prior to entrance by means of formal coursework or other arrangements agreed upon by the applicant and the Graduate Program Committee. Potential students must have a sponsoring graduate faculty member within Arkansas State University, who will act as advisor until a thesis topic or practicum is designated. For advisor selection suggestions, contact the program office or go to the departmental web pages to research faculty research interests and then contact them directly and relate your interests.

Applicants are also expected to have a working knowledge of computer systems and software.

For unconditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

1. A minimum cumulative undergraduate grade point average of 3.00 in the last 60 hours or established graduate level proficiency.
2. Applicants should furnish two letters of reference from former professors or associates acquainted with their academic qualifications. Lastly, a letter of intent from the applicant is needed detailing the nature of their interests and career goals.

International student applicants must demonstrate a satisfactory level of proficiency in the English language if English is not their native language. To do so, they must submit a score of 213 (computer based) on the Test of English as a Foreign Language or must satisfactorily complete Advanced Level II of the university's Center for English as a Second Language program.

Applicants to the MS Graduate Program in Environmental Sciences must hold a baccalaureate or master's degree (BA, BS, MA or MS) from an accredited institution in a relevant field of study. Applicants must submit the following to Graduate Admissions:

1. A completed application for admission to the Graduate Program in Environmental Sciences. Applicants are encouraged to submit the application no later than January 15 for the fall semester and July 15 for the spring semester. Forms are available from Graduate Admissions.
2. A \$30 nonrefundable application fee for MS program. This can be paid online as part of the application or a check can be mailed to the A-State Treasurer's Office with the applicant's name and date of birth in the memo line. Checks must be made payable to Arkansas State University. If applications are received without payment, Graduate

Admissions will hold all application materials and notify the applicants that no action will be taken until payment is received. International students may utilize a check or an International Postal Money Order to remit payment in U.S. currency.

3. One copy of official transcripts of all previous undergraduate and graduate coursework attempted, to be sent directly from the institution(s) previously attended. Graduate Admissions will compute the graduate GPA by counting all graduate courses completed, including any repeated courses.

Applicants to the MS Graduate Program in Environmental Sciences must possess a baccalaureate degree from an accredited four-year institution and meet the admission requirements of Graduate Admissions. Applicants should be aware that the breadth of the course work in this program demands that students have a basic background in several disciplines. Preparatory courses for this program may include:

- **Mathematics:** Calculus I as well as an applied statistics course or second semester Calculus course.
- **Chemistry:** A first and second semester chemistry course sequence.
- **Biology:** A first and second semester biology course sequence.
- **Earth Science:** A first and second semester earth science course sequence.
- **Economics:** An introductory level economics course.
- **Political Science:** American government, United States history or world history.

Students should contact the Program Director for details regarding course requirements for specific focus areas within the program. Students lacking the appropriate courses for their chosen focus area can be admitted into the program but may be required to complete preparatory course work before enrolling in specific graduate core courses. Applicants are also expected to have a working knowledge of computer systems and software. In some cases, the Environmental Sciences Graduate Program Committee may agree to substitute equivalent, documented work experience in the environmental field for specific courses and, in rare cases, other criteria for admission. Contact the Program Director for questions in these matters.

4. Two letters of recommendation to be reviewed by the Environmental Sciences Program Committee. Acceptance into the program will be made by the Environmental Sciences Program Committee.
5. Graduate Record Examination (GRE) scores for the Verbal, Analytical and Quantitative tests. Scores from the Graduate Record Examination showing a score of 150 on both the verbal and quantitative tests or a combined score of 1000 on the verbal and quantitative sections for scores that used the old scoring system are the minimum requirements. Although not required, scores from an advanced test related to Environmental Sciences may increase a candidate's chance for admission.
6. International student applicants must demonstrate a satisfactory level of proficiency in the English language if English is not their native language.
7. Statement of Purpose. In essay form, state your reasons for undertaking graduate study in the Environmental Sciences. Please describe your qualifications for the academic program to which you are applying and your objectives in undertaking this program. Applicants should clearly outline their research interests and how the Graduate Program in Environmental Sciences will help attain their goals. We are interested in how the applicant's interests would complement those research interests of the faculty. It is strongly encouraged to contact faculty members in Environmental Sciences to see if they would have a position in their laboratory available.
8. Resume (C.V.) List all colleges and universities attended, major extracurricular activities and employment, detailing particularly those relevant to your proposed field of study; any honors or prizes awarded; and publications and research projects with which you have been associated.

MASTER'S ADVISORY COMMITTEES

Each student is expected to identify a Master's Advisory Committee chair during the first year of their program of study. The Master's Advisory Committee will consist of members of the graduate faculty and other professionals as deemed appropriate and approved by the Director of the Environmental Sciences Program and must have graduate status as approved by the Graduate Council. Each committee must have at least three members and at least one member must be from outside the student's emphasis area. Committee membership is subject to the approval of the Environmental Sciences program director, and review by the Dean. The committee is to review the student's thesis or practicum proposal and to provide guidance toward the successful completion of the research of practicum project.

Membership of advisory committees may be changed if either the student or a member of their committee feels that such a change is appropriate and the requested change is approved by the Environmental Sciences Program Committee and the Dean of the College of Science and Mathematics. Such a change will not be approved except in clearly unusual circumstances. A Master's Advisory Committee chair must be a member of the graduate faculty and must be approved to direct the research of graduate students by the Graduate Council and the Dean of the College of Science and Mathematics.

PROGRAM OF STUDY

A program of study, to be developed by the student in consultation with the Master's Advisory Committee, is to be submitted to the Director of the Environmental Sciences Program for approval no later than one calendar year after admission to the program. Programs of study must change to meet course requirements and match the student's academic goals, scholarly aspirations and career preparation needs. Each Master's Advisory Committee will meet at least once every six months to review and provide record of the student's progress.

SATISFACTORY PROGRESS

Students are required to earn a grade of "B" or better in all graduate courses. Any student who receives a C must repeat the course (or equivalent) regardless of GPA. If a student receives a C and is placed on academic probation they will have one semester to increase the GPA above a 3.0 or will be removed from the program. A student who receives more than one C in one semester or who received an additional C prior to re-taking the course in which the first C was earned or who receives a C while on probation will be terminated from the program. Any student who receives an F or D in any course will be removed from the program. If the GPA is below 3.0 students will not be eligible for program support.

TIME TO DEGREE

A minimum of four semesters of graduate study beyond the baccalaureate degree is required. All requirements for the degree must be completed within eight calendar years of admission to the program. A student exceeding the time limit may be required to repeat the qualifying examinations, replace out-of-date credits with up-to-date ones, and/or show other evidence of being current within both the core curriculum and the student's emphasis area. Extension of the eight-year requirement will be granted only if a student has obtained prior approval from his or her Master's Advisory Committee, the Environmental Sciences Graduate Program Committee and the Graduate School.

RESIDENCE REQUIREMENT

One year of full-time residence at Arkansas State University normally will be required. This requirement may be waived under special circumstances if approved by the student's Master's Advisory Committee, the Environmental Sciences Graduate Program Committee and the Arkansas State Graduate School.

COMPREHENSIVE EXAMINATION – THESIS TRACK

This examination is required by the Program, but takes a variety of forms in the case of individual students. The precise requirements is determined by the student's choice of emphasis area and the student's advisory committee and approved by the Director of the Graduate Program in Environmental Sciences. The goal of the examinations is to assess the student's preparedness for master's level study and assess the student's potential in their chosen field. The examination of may be written or oral in part or in whole. The subject(s) of the examination may include core course work and/or work relevant to the student's specialty area. Possible outcomes of the examination are (i) pass, (ii) fail with the option to retake (one time only) the examination, or (iii) fail. Students who fail initially or after the second attempt will be removed from the program. It should be noted that there is a program requirement that ten calendar weeks must pass before a retake of this examination may be scheduled. This examination must be taken prior to the end of the third semester in residence.

THESIS PROPOSAL – THESIS TRACK

Each MS Thesis track student must pass the oral research proposal defense examination. Possible outcomes of the examination are (i) pass, (ii) fail with option to retake (one time only) the examination, or (iii) fail. The oral defense of the research proposal occurs after successful completion of the comprehensive examination. Students who have not defended their proposal by end of their third semester or who have not passed by the end of their forth semester will no longer be in good standing in the MS Program. It should be noted that there is a program requirement that ten calendar weeks must pass before retake of the oral proposal defense may be scheduled.

It is imperative that each student register the time and date of the oral proposal defense with the Environmental Sciences Program two weeks in advance of the proposal defense seminar. Announcements of the public portion of the proposal defense must be posted a minimum of two weeks in advance of the presentation. The timing of this examination should be in coordination with the student's advisory committee.

INTERNSHIP – PRACTICUM TRACK

Students on the MS Practicum Track must complete their internship no later than the fourth semester in residence. Internships must be approved by the Director of the Environmental Sciences Program and internship supervisors must complete the required paperwork no later than the semester prior to the internship. Students will complete an internship report to be defended to their internship supervisor and MS committee. Internship reports, once approved, must be submitted to the Program Office no later than the forth semester upon completion of the internship. The Internship examination will follow the defense of the report. Possible outcomes of the examination are (i) pass, (ii) fail with option to retake (one time only) the examination, or (iii) fail. Students who fail initially or after the second attempt will be removed from the program. It should be noted that there is a program requirement that ten calendar weeks must pass before a retake of this examination may be scheduled. This examination must be taken prior to the end of the forth semester in residence. The final internship approval will be based on the supervisor's report, approval of the report by the MS committee, and passing the internship examination.

CONTINUOUS ENROLLMENT

The Graduate Program in Environmental Sciences has a continuing enrollment policy. Students must enroll for a minimum of 1 hour of thesis credit each semester after passing the comprehensive examination to remain in the program (Fall or Spring) and must only register for these hours during the summer sessions if graduating during a summer session.

THESIS DEFENSE – THESIS TRACK

After the research is completed, the student will submit a draft of the thesis to his or her advisory committee. Upon the recommendation of the committee, the candidate will arrange with the chair of his or her advisory committee to schedule and conduct a presentation of the results. The candidate will also be required to orally defend the thesis before the Master's Advisory Committee, members of the faculty, students, and interested persons. Arrangements for the thesis defense will be made and announced by the Environmental Sciences Program. Students are advised to be aware of the deadlines set by the Registrar for submission of defense results and theses. The defense must occur at least four weeks before the date of graduation. A successful defense receives no more than one negative vote by the members of the Master's Advisory Committee. Failure of the defense requires a one semester probation before a second defense can be scheduled. A second failure of the defense constitutes elimination from the program.

INTERNSHIP REPORT AND DEFENSE – PRACTICUM TRACK

Students will complete a written internship report to be defended to their internship supervisor and MS Committee. Internship reports, once approved, must be submitted to the Program Office no later than the fourth semester or upon completion of the internship. The Internship examination will follow the defense of the report. Possible outcomes of the examination are (i) pass, (ii) fail with option to retake (one time only) the examination, or (iii) fail. Students who fail initially or after the second attempt will be removed from the program. It should be noted that there is a program requirement that ten calendar weeks must pass before a retake of this examination may be scheduled. This examination must be taken prior to the end of the forth semester in residence. The final internship approval will be based on the supervisor's report, approval of the report by the MS Committee, and passing the internship examination.

SUBMITTING THESIS

The completed thesis must follow the style and format requirements of Graduate Programs as contained in the Guide Theses and Dissertations: Preparation and Electronic Submission. Before submission to the Registrar, the completed thesis must be approved by the advisory committee. Candidates will also be responsible for the preparation of an abstract of the thesis, not to exceed 150 words, which will be submitted with the completed thesis. The student is required to purchase three copies of the bound thesis for the A-State library, the Environmental Sciences Program and the thesis advisor.

INTERNSHIP COMPLETION AND APPROVAL – PRACTICUM TRACK

The final internship approval and award of degree will be based on the supervisor's report, approval of the report by the MS committee, and passing the internship examination.

CHECKLIST FOR THE LAST SEMESTER BEFORE GRADUATION

- In the last semester before graduation, candidates must register for the graduation fee.
- File an Intent to Graduate Form with the Office of the Registrar by the relevant deadline.
- Complete the oral defense of the dissertation.
- Submit the dissertation by the relevant deadline.

Environmental Sciences

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
Environmental Chemistry/ Soil and Water Science (select one of the following): CHEM 5043, Environmental Chemistry GEOG 4633/5633, Climatology PSSC 4713/5713, Soil Quality Assessment and Interpretation PSSC 4813/5813, Soil Fertility PSSC 4853/5853 Soil and Water Conservation	3
Environmental Policy, Law & Economics (select one of the following): ECON 6353, Environmental Economics POSC 5533, Environmental Law and Administration POSC 6173, Environmental Policy Processes	3
Interdisciplinary Environmental Studies (select one of the following): AGRI 6243, Environmental Sustainability BIO 5613, Conservation Biology BIO 6623, Case Studies in Ecosystem Management AND BIO 6621, Case Studies in Ecosystem Management Lab ESCI 6303, Global Water Issues	3-4
Sub-total	9-10
Additional Requirements:	Sem. Hrs.
Select two hours from the following: <i>One hour in Topical Seminar required</i> ESCI 7111, Environmental Science Seminar ESCI 7121, Topical Seminar in Environmental Sciences	2
Ethics and Responsible Conduct in Research (select one of the following): ESCI 7151, Responsible Conduct in Research BIO 5063, Biosafety and Ethics in Research	1-3
Statistics (select two of the following courses or course/lab combinations): AGRI 6213, Experimental Designs AGRI 5233, Experimental Agricultural Statistics BIO 5683, Biological Data Analyses BIO 6603, Environmental Systems Analysis AND BIO 6601, Environmental Systems Analysis Lab STAT 6613, Nonparametric Statistics STAT 6623, Statistical Methods with SAS Programming STAT 6643, Multivariate Analysis STAT 6653, Data Analysis I: Regression Analysis STAT 6663, Data Analysis II: Analysis of Variance (ANOVA) STAT 6673, Design of Experiments STAT 6833, Biostatistics	6-7
Sub-total	9-12
Specialty Area:	Sem. Hrs.
Each student will normally take courses in their specialty area sufficient to bring the total number of credits to the minimum of 30 required, beyond the bachelor's degree, for the M.S. in Environmental Sciences.	-
Thesis/Practicum/Internship:	Sem. Hrs.
Select one of the following: ESCI 613V, Independent Research in Environmental Sciences (Internship) ESCI 614V, Environmental Sciences Internship (Practicum) ESCI 689V, Thesis	6
Total Required Hours:	30

Program of Study for the Master of Science in Mathematics

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science degree program in Mathematics, must meet the admission requirements of Graduate Admissions and the specific program requirements. Students may not take 6000-level courses for credit until all undergraduate deficiencies have been removed.

Mathematics

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
Minimum 21 hours of 6000-level coursework excluding thesis.	
Select two of the following two-semester sequences: MATH 6823, Functions of a Real Variable I AND MATH 6833, Functions of a Real Variable II MATH 6853, Functions of a Complex Variable I AND MATH 6863, Functions of a Complex Variable II MATH 6603, Abstract Algebra I AND MATH 6613, Abstract Algebra II MATH 6753, Point Set Topology AND MATH 6623, Differential Geometry MATH 6873, Numerical Analysis I AND MATH 6883, Numerical Analysis II	12
Select three of the following: MATH 6813, Advanced Ordinary Differential Equations MATH 6643, Advanced Linear Algebra MATH 6653, Theory of Numbers Any course listed in the box above that is not used for two sequence requirement (a sequence is not required)	9
MATH Electives	6
Approved electives in related area	6
Sub-total	33
Total Required Hours:	33

Program of Study for the Master of Science in Statistics

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science degree program in Statistics, must meet the admission requirements of Graduate Admissions and the specific program requirements. Students may not take 6000-level courses for credit until all undergraduate deficiencies have been removed.

For unconditional admission, academic proficiency must be established through satisfaction of the following admission selection criteria:

- A minimum cumulative undergraduate grade point average of 3.00 on a 4.00 scale OR the score of the combined verbal and quantitative sections of the Graduate Record Examination (GRE) meets the department requirement.

For conditional admission, academic proficiency must be established through satisfaction of the following admission selection criteria:

- The total undergraduate GPA is 2.75 on a 4.00 scale OR the score of the combined verbal and quantitative sections of the Graduate Record Examination (GRE) meets the department requirement.

Statistics Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
Minimum 21 hours of 6000-level coursework excluding thesis.	Sem. Hrs.
STAT 6653, Data Analysis I AND STAT 6663, Data Analysis II	6
STAT 6703, Statistical Analysis I AND STAT 6713, Statistical Analysis II	6
Select one of the following programming courses: STAT 5483, Statistical Methods Using R STAT 6623, Statistical Methods with SAS Programming STAT 6833, Biostatistics	3
Electives (select four of the following): STAT 5463, Probability and Statistics II STAT 5483, Statistical Methods Using R STAT 6433, Time Series Analysis STAT 6613, Nonparametric Statistics STAT 6623, Statistical Methods with SAS Programming STAT 6643, Multivariate Analysis STAT 6673, Design of Experiments STAT 6723, Probability STAT 6833, Biostatistics	12
Approved electives in related area	6
Sub-total	33
Total Required Hours:	33

Graduate Certificate in Statistics

Statistics Graduate Certificate

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Core Courses:	
STAT 6613, Nonparametric Statistics	3
Select one of the following sequences: STAT 6653, Data Analysis I AND STAT 6663, Data Analysis II OR STAT 6703, Statistical Analysis I AND STAT 6713, Statistical Analysis II	6
Sub-total	9
Electives:	
Select one: STAT 5483, Statistical Methods Using R STAT 6623, Statistical Methods with SAS Programming	3
Select one: STAT 6433, Time Series Analysis STAT 6643, Multivariate Analysis STAT 6673, Design of Experiments STAT 6833, Biostatistics	3
Total Required Hours:	15

Program of Study for the Master of Science in Molecular Bioscience

PROGRAM DESCRIPTION

The inter-disciplinary Master of Science in Molecular Biosciences Program prepares students to pursue scientific research or technology driven careers in multiple fields ranging from agriculture to medicine, from forensics to environmental sciences, from food sciences to renewable energy. The program provides training and research opportunities integrating molecular, genomic, cellular and developmental concepts, with a strong emphasis on interdisciplinary approaches and state-of-the-art technologies to address real world problems.

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Molecular Biosciences Program must meet the admission requirements of Graduate Admissions in addition to the Program's specific requirements that includes graduate Record Examination (GRE) scores for the Verbal, Analytical and Quantitative tests. Scores from the Graduate Record Examination showing a score of 150 on both the verbal and quantitative tests or a combined score of 1000 on the verbal and quantitative sections for scores that used the old scoring system are the minimum requirements.

Each applicant must have a B.S. in basic or applied science. Some required MBS courses have prerequisites which must be met in order to succeed in these classes. These courses may include general and organic chemistry, biochemistry, introductory biological science, and cell biology. Based on previous undergraduate coursework, students may be required to pass one or more of these pre-requisite courses before attempting graduate level study in this field. In addition each applicant should submit one copy of official transcripts of all previous undergraduate and graduate coursework directly from the institutions that they attended. Applicant also need to submit three letters of recommendation to be reviewed by the program committee. Applicant should also include a current curriculum vitae, and a personal statement (maximum of two pages) describing the student's academic and research goals. Applicants are encouraged to identify areas of research interest as well as possible research mentors within the faculty of the Molecular Biosciences Program.

COURSE REQUIREMENTS

All candidates Master of Science in Molecular Biosciences are required to complete the specified core courses and elective courses, or their equivalent, as directed by the student's advisor and the members of the student's Advisory Committee. All candidates must attend Molecular Biosciences Seminar for a minimum of two semesters when in residence on campus. Each student must complete a minimum of 15 hours of Molecular Biosciences approved course work (including the specified 9 credits in Core Technical courses, 1 credit in Responsible Conduct in Research and 3 credits from the Techniques in Molecular Biosciences course and two credits of seminar). Students must also take 6 hours of thesis research credits along with any other academic studies required by the student's Advisory Committee. The committee may alter or require additional academic work as it deems appropriate to meet the student's specific program needs. The committee will also provide a written plan of study by semester for each student. Thus the student for the Master of Science degree will complete a minimum of 30 to 36 credit hours of coursework.

Any additional coursework requirements will be determined by the Graduate Advisory Committee to meet the student's specific program needs. Each candidate for the Master of Science in Molecular Biosciences degree must execute an original research project culminating in the completion and defense of a thesis.

There are two public defenses: 1) thesis proposal and 2) thesis defense of their completed research. Each of these defenses is followed by an oral examination given by the MS Advisory Committee. A MS level research scientist must have the ability to form a research hypothesis based on previous knowledge in the area, design the critical experiments necessary to test the hypothesis, analyze the experimental data, propose additional experiments based on the data, and come to a successful completion of the research. Passing all exams implies that the student has sufficient critical thinking skills to be able to solve any problems that might arise during the research. Students must also acquire sufficient knowledge

in the research area. Thus, these examinations are important milestones for assessing whether the graduate student has the necessary knowledge and skills to advance toward completion of the Masters of Science Degree (Thesis) in Molecular Biosciences.

RESEARCH ADVISOR

A student must select a permanent research advisor by the end of the first semester. Students who fail to choose a permanent research advisor before the second week of the second semester in the program jeopardize their academic standing in the program. If a research advisor is not selected by the end of a student's second semester, the student risks dismissal from the program.

CHANGING A RESEARCH ADVISOR

Changing the research advisor after the student has begun his/her program of study can be done, but is often not in his/her best interests. If such a change is necessary the student must consult with the MBS Program Director before initiating the change.

MS ADVISORY COMMITTEE

Consulting with the research advisor, the student should form a thesis advisory committee that should have a minimum of three members including the research advisor. It is strongly recommended that the students discuss their proposed Program of Study and research area with their committee members by the end of the second semester. The MBS Program recommends one formal meeting of the student, their research advisor and their MS Advisory Committee each semester

CHANGES IN THE MS ADVISORY COMMITTEE

To petition for a change in the membership of their MS Advisory Committee, the student MUST gain approval of the MBS Program Director.

THESIS PROPOSAL AND DEFENSE (QUALIFYING EXAMINATION)

It is recommended that the student completes writing a thesis proposal by the end of the second semester in residence. This document must first be approved by the MS Research Advisor before the MS Advisory Committee review. A final draft of the thesis proposal must be submitted to the MS Advisory Committee at least two weeks before the proposal seminar and defense. With the approval of the advisory committee members, student should arrange for the oral defense of the thesis proposal. A Seminar Announcement to the MBS Program Office must also be submitted two weeks prior to the scheduled seminar so that the program office can make a public announcement in time. Possible outcomes of the proposal defense are i) pass, or ii) fail with option to retake (one time only) the examination, or iii) fail. It should be noted the Graduate Council requires at least ten calendar weeks must pass before a retake of a qualifying examination can be scheduled. If a student fails to pass this examination may no longer be in good standing with the program and may lose graduate student status at the discretion of the MS Advisory Committee.

THESIS DEFENSE

After completing an extensive research project approved by the Research Advisor and MS Advisory Committee, the student is required to present the written thesis to his or her MS Advisory Committee, and hold the final public defense. The format of this defense is identical to that of the Thesis Proposal Defense. A completed draft of the Thesis must be first approved by the Research Advisor before the Thesis is given to all committee members a minimum of 21 days before the defense date. Students must get approval from all committee members that the defense can take place as scheduled. A seminar announcement to the MBS Program Office must also be submitted and the Graduate Program section of the Registrar's office notified no less than two weeks prior to the defense. Thus there are two public defenses: 1) thesis proposal and 2) thesis defense of their completed research. Each of these defenses is followed by an oral examination given by the MS Advisory Committee. These examinations are important milestones for assessing whether the graduate student has the necessary knowledge and skills to advance toward completion of the Masters of Science Degree (Thesis) in Molecular Biosciences.

Molecular Bioscience

Master of Science

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	Sem. Hrs.
MBS 6213, Advanced Cell Biology	3
MBS 6233, Specialized Biochemistry	3
MBS 6243, Molecular Genetics and Genomics	3
MBS 6251, Techniques in Molecular Biosciences (two semesters)	2
MBS 7111, Seminar in Molecular Biosciences (two semesters)	2
Ethics and Responsible Conduct in Research (select one of the following): MBS 7151, Responsible Conduct in Research BIO 5063, Biosafety and Ethics in Research	1-3
MBS 689V, Thesis	1-6
Additional approved Molecular Biosciences courses	-
Sub-total	30-36
Total Required Hours:	30-36

Program of Study for the Master of Science in Education Degree in Biology

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Biology must meet the admission requirements of Graduate Admissions and the specific program requirements. In addition, applicants for the M.S.E. program in Biology will be evaluated by the department for academic qualification based upon their undergraduate academic record, score on the Graduate Record Examination, and letters of reference. Specific requirements include:

1. A minimum of 18 undergraduate hours in the biological sciences and an undergraduate grade point of 2.75 or greater (on a 4.0 scale). Students judged to be deficient in some areas of undergraduate preparation may be assigned certain undergraduate prerequisite courses.
2. A recommended GRE combined verbal and quantitative score of 290.
3. Three letters of reference.
4. A statement of educational objectives and career goals.
5. A valid teaching certificate based on a four-year teacher education program.

Applicants not meeting all of the above departmental criteria may be admitted on a conditional basis.

Biology

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education Core Courses:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6063, Curriculum Management ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELFN 6763, Philosophies of Education (<i>if not taken previously</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken previously</i>)	3
Sub-total	9
Program Requirements:	Sem. Hrs.
Three Biological Science electives, exclusive of Independent Study, Seminar, and Thesis.	-
Electives	-
Sub-total	21
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in Chemistry

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Chemistry must meet the admission requirements of Graduate Admissions and the specific program requirements. In addition, applicants must have completed a minimum of 18 semester hours of professional education courses including the requirements for a valid teaching certificate based on a four-year teacher education program. Applicants who do not meet the requirements for a valid teaching certificate based on a four-year teacher education program will be required to complete the undergraduate courses required for such a certificate. These courses may be completed concurrently with graduate work, but must be completed before the degree is awarded.

For unconditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours) or a minimum score of 300 on the combined verbal and quantitative sections of the Graduate Record Examination (GRE).

Chemistry

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education Core Courses:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6063, Curriculum Management ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELFN 6763, Philosophies of Education (<i>if not taken previously</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken previously</i>)	3
Sub-total	9
Program Requirements:	Sem. Hrs.
CHEM 5224, Instrumentation	4
CHEM 6353, Advanced Analytical Chemistry	3
CHEM 6393, Advanced Organic Chemistry	3
CHEM 6403, Advanced Inorganic Chemistry	3
Chemistry or Approved Electives	8
Sub-total	21
Total Required Hours:	30

Program of Study for the Master of Science in Education Degree in Mathematics

ADMISSION REQUIREMENTS

Students seeking admission into the Master of Science in Education degree program in Mathematics Education must meet the admission requirements of Graduate Admissions and the specific program requirements. In addition, applicants must have completed a minimum of 18 hours of professional education courses including the requirements for a valid teaching certificate based on a four-year teacher education program. Applicants who do not meet the requirements for a valid teaching certificate based on a four-year teacher education program will be required to complete the undergraduate courses required for such a certificate. These courses may be completed concurrently with the graduate work, but must be completed before the degree is awarded.

For unconditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

- A minimum cumulative undergraduate grade point average of 3.00 (or 3.25 on the last 60 hours) and a raw score of at least 30 on the Miller Analogies Test (MAT) or a minimum score of 790 on the combined verbal and quantitative sections of the Graduate Record Examination (GRE).
- A minimum cumulative undergraduate grade point average of 2.75 (or 3.00 on the last 60 hours) and a raw score of at least 35 on the MAT or a minimum score of 820 on the combined verbal and quantitative sections of the GRE.

For conditional admission, academic proficiency must be established through satisfaction of either of the following admission selection criteria:

- The total undergraduate GPA is 2.50 AND when the undergraduate GPA is multiplied by 10 and then multiplied by the MAT score the total is at least 600.
- The total undergraduate GPA is 2.50 AND when the undergraduate GPA is multiplied by the GRE score the total is at least 1850.

Mathematics

Master of Science in Education

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Professional Education Core Courses:	Sem. Hrs.
ELFN 6763, Philosophies of Education OR PSY 6513, Advanced Educational Psychology	3
ELFN 6773, Introduction to Statistics and Research	3
Select one of the following: ELCI 6063, Curriculum Management ELCI 6423, Middle School Curriculum ELCI 6523, Secondary School Curriculum ELFN 6763, Philosophies of Education (<i>if not taken previously</i>) PSY 6513, Advanced Educational Psychology (<i>if not taken previously</i>)	3
Sub-total	9
Program Requirements:	Sem. Hrs.
Approved MATH/STAT Electives	21
Total Required Hours:	30

Program of Study for the Professional Science Master's in Biotechnology

The Professional Science Master's in Biotechnology program prepares students to compete successfully for existing and future careers in biotechnology. The program offers classroom instruction on concepts and theory, integrated with intensive laboratory experience focusing on techniques and communication skills required for professional biotechnologists. It is an interdisciplinary program composed of 36 academic credits. This includes two intensive laboratory methods courses and a directed professional internship with a minimum of 300 laboratory hours in an industry or government laboratory research agency that each student must complete. The internships focus on intensive training and students are required to compose a PowerPoint presentation and a professional portfolio illustrating accomplishments achieved during their internship experiences.

ADMISSION REQUIREMENTS

Students seeking admission into the Professional Science Master's in Biotechnology program must meet admission requirements of Graduate Admissions. In addition, full admission status requires satisfaction of the following criteria:

- A baccalaureate degree with a minimum science GPA of 2.75 (undergraduate science courses). Preference is given to students with a degree in the biological and chemical sciences.
- Verbal, Analytical, and Quantitative GRE Scores:
 - GRE Exam before Fall 2011 - Minimum combined Verbal and Quantitative Score of 1000
 - GRE Exam after Fall 2011 - Minimum combined Verbal and Quantitative Score of 300
- Three (3) Letters of Recommendation
- Personal Statement of Career Goals

All applications are due by May 1st. International applicants are also required to submit TOEFL scores with a minimum IBR score of 79. Exceptions to these requirements are made on an individual basis.

Biotechnology

Professional Science Master's

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Program Requirements:	
	Sem. Hrs.
BIO 6023, Genetic Engineering	3
BIO 6033, Biosafety & Ethics in Research	3
BIO 6143, Introduction to Biotechnology & Research Design	3
BIO 6144, Biotechniques I Laboratory	4
BIO 6154, Biotechniques II Laboratory	4
BIO 6196, Internship in Biotechnology	6
BIO 6233, Specialized Biochemistry	3
MBS 6213, Advanced Cell Biology	3
MGMT 6433, Entrepreneurship	3
Approved electives	4
Sub-total	36
Total Required Hours:	
	36

Ph.D. Minor in Statistics

The Ph. D. Minor in Statistics is designed to give graduate students in doctoral programs a rich foundation and core competency in statistical design and analysis skills, and to provide education and training for interested students whose doctoral research includes a substantial amount of statistical methodology or data analysis. These students will benefit from broad and enriched perspective in the fundamentals and applications of statistics.

ADMISSION REQUIREMENTS

Students seeking the Ph.D. Minor in Statistics must be admitted to an A-State doctoral program.

CURRICULUM

The Ph.D. Minor in Statistics requires at least 12 hours of 6000-level courses with a STAT prefix. A grade of B or better must be earned in each course counted toward the minor. STAT courses which satisfy requirements of the student's graduate program may also count toward the Minor in Statistics. In addition to course work, students must demonstrate the ability to apply statistical methodology to problems in research. Sections or chapters of a dissertation must provide such a demonstration. Administration of the Ph. D. Minor in Statistics is through the Department of Mathematics and Statistics. A member of the statistics faculty must be on the student's graduate committee.

The following provides one example of a set of courses that satisfies the course work portion of the Ph.D. Minor in Statistics.

Ph.D. Minor in Statistics

University Requirements:	
See Graduate Degree Policies for additional information (p. 47)	
Course Requirements:	Sem. Hrs.
STAT 6623, Statistical Methods with SAS Programming	3
STAT 6653, Data Analysis I: Regression Analysis	3
STAT 6663, Data Analysis II: Analysis of Variance	3
STAT 6673, Design of Experiments	3
Sub-total	12
Total Required Hours:	12

English Learning Academy

ENGLISH AS A SECOND LANGUAGE PROGRAM

The English Learning Academy (ELA) at Arkansas State University-Jonesboro has a dynamic and progressive English as a Second Language (ESL) program that actively serves students in obtaining English proficiency for undergraduate and graduate study.

The ESL program is comprehensive in design and structure, implementing a multi-pronged approach focusing on communicative language instruction. Classroom instruction, along with structured, practical activities, promotes and reinforces students' fluency. Instruction is implemented through methods similar to those experienced in the university classroom.

The program consists of five levels plus a Foundations of English level for students with little background in English. Courses include instruction in the four skills of reading, writing, listening, and speaking. Grammar and vocabulary instruction are systematically embedded throughout all the courses utilizing texts, abundant ancillary materials, activities, and student-centered instruction. The program interweaves all basic language skills to further emulate real-life language usage, as well as experiences students will have while matriculating in the university. Students enrolled in the program can expect to be engaged in learning that facilitates language acquisition and provides a solid foundation in skills necessary for successful study at the university level. These skills include language-based technology skills, note taking, critical thinking and analysis, preparing and delivering oral presentations, working in groups, and academic writing.

ESL VISION AND MISSION STATEMENTS

It is the vision of the ELA that all students completing the program will be linguistically, culturally and academically prepared to succeed in university courses taught in English.

To achieve this vision, the program seeks to develop students' linguistic competency, cultural awareness, and critical thinking skills to enable them to experience academic success and to have positive intercultural experiences when enrolled in university-level courses.

ADDITIONAL PROGRAM INFORMATION

The ELA offers college preparatory language courses to international students who wish to pursue undergraduate or graduate studies at A-State but do not meet the English language proficiency requirement for admission. Students who matriculate through the program and successfully complete Level 5 with the required ITEP score are eligible to enter undergraduate or graduate studies with no further need for language proficiency examinations, such as the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must complete all course work with a grade of B or higher for all ESL courses from Foundations of English through Level 4. In the final course, Level 5 students must maintain a B average to progress to undergraduate studies. All students who are candidates for graduate studies must maintain an A average in Level 5.

Detailed information and answers to questions about the English as a Second Language program can be obtained by e-mailing ELA@AState.edu or by telephone at +1 870-972-2329.

Course Descriptions

College of Agriculture

Agricultural Business and Economics (AGEC)

- AGEC 5023. Grain Merchandising and Commodity Marketing** Development and coordination of activities related to grain merchandising and marketing agricultural commodities. Emphasis given to basis trading and risk in trading commodities. Dual listed with AGEC 4023.
- AGEC 5033. Agricultural Law** Farm laws pertaining to land purchases, legal descriptions, leases, mortgages, security agreements, fences, drainage, irrigation, pollution, and quarantines. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323.
- AGEC 5043. Land Economics** Physical characteristics as related to land use; the economics of land use. Principles of land utilization, classification, conservation, zoning, and land-use planning. Prerequisite, AGEC 1003.
- AGEC 5053. Agricultural Finance** A study of the financial elements of the farm business. Emphasis will be given to the use of and sources of agricultural credit. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323.
- AGEC 5083. Agricultural Policy and Current Issues** Economic developments in agriculture; role of the government in agriculture and policies affecting rural people are considered. Text and current information are utilized. Prerequisite, AGEC 1003 or ECON 2313 or ECON 2323.
- AGEC 5093. Environmental and Resource Economics** Economic analysis of resource and environmental problems with an emphasis on applying theoretical macroeconomic concepts and empirical tools for understanding environmental resource policy. Prerequisites, C or higher in AGEC 1003 or ECON 2313 or ECON 2323.
- AGEC 5253. Agricultural and Environmental Data Science** Agricultural and environmental data gathering, wrangling, analysis, and visualization with emphasis on introductory programming skills.
- AGEC 6003. Consumer Behavior and Food Marketing** Consumer and behavioral economic theory and experimental design for food market research. Demand analysis and product valuation with experimental economic methods in the agriculture and food industry.
- AGEC 6013. Advanced Agricultural Price Analysis** Agricultural price theory, geographical and temporal arbitrage, empirical forecasting of agricultural and food prices in real-world situations. Characteristics of specific agricultural product types and prices under alternative structures; relationship to global food supply chain.
- AGEC 6023. Advanced International Agribusiness and Food Marketing** Principles, barriers, policies, strategies, and decisions involved in international agribusiness and food markets using real-world case studies. Emphasis on information gathering, synthesis, decision-making frameworks, and agribusiness communication skills.
- AGEC 6033. Quantitative Decision-Making in Agribusiness and Food Management** Practical mathematical applications for agribusiness decision-making using relevant software, including interpretation and communication of quantitative techniques and the agribusiness decision-making process. Emphasis on applied optimization concepts, analysis, and problem solving skills to manage agribusiness and food marketing firms.

AGEC 6043. Advanced Agribusiness Management Agribusiness organization and management. Budgeting, input-output relationships, and enterprise analysis in decision making. Application of economics and management principles to manage agribusinesses. Prerequisite, AGEC 1003 or AGEC 4073 or ECON 2313 or ECON 2323 or ACCT 2023 OR ACCT 2033 or MGMT 3123.

AGEC 6053. Advanced Production Economics Theory and applications of production economics. Emphasis will be given on employing detailed graphical and mathematical analysis to understand the concepts of production economics.

AGEC 619V. Thesis

AGEC 6253. Applied Econometrics Application of regression analysis on spatial, time-series, and cross-sectional data to empirically investigate agricultural production, agribusiness management, and environmental components of agriculture. Various estimation methods are discussed.

Agricultural Education (AGED)

AGED 5473. International Agri. Study Tour This course is intended to help students develop awareness and perspective of international agricultural enterprises and educational programs, and how world agricultural systems relate to and impact the U.S. agricultural system. Includes a focus on environmental issues related to food and fiber production. Dual listed as AGED 4473.

AGED 6393. Non-Thesis Research Experience Supervised research project, submitted to and approved in advance by the student's graduate advisory committee, resulting in a project report presented and defended to the student's advisory committee. A member of the committee must agree to serve as supervisor.

AGED 659V. Thesis

Agricultural Systems Technologies (AGST)

AGST 5003. Modern Irrigation Systems Methods, equipment, current issues and future directions of irrigation, irrigation design and scheduling, drainage systems, irrigation measurements, performance evaluation, and impact on productive and sustainable agriculture. Prerequisite, MATH 1033 and PSSC 2813. Dual listed as AGST 4003.

AGST 501V. Special Topics Graduate Seminar Contemporary topics in Agricultural Systems Technology.

AGST 5503. Agricultural Decision Tools and Analysis Analysis Hands-on experience with cloud/desktop software, spatial algorithms and tools for irrigation system design/management as well as processing/analyzing/interpreting of georeferenced agricultural data obtained from diverse sources such as human scouts, ground and equipment sensors, and unmanned aerial systems. Dual listed with AGST 4503. Prerequisite or Corequisite, AGST 5511.

AGST 5511. Unmanned Aircraft Systems Software and mobile applications for designing flight missions and collecting data using unmanned aircraft system. Intended to prepare students for the Federal Aviation Administration remote pilot license exam. Dual listed with AGST 4511. Prerequisites, AGST 5543 or AGST 4543 or AGST 3543.

AGST 5543. Understanding Geographic Information Systems Methods, concepts, software, analysis and modeling of geospatial data using raster and vector data models for human-environment interactions using geographic information systems (GIS). Dual listed with AGST 4543.

- AGST 5773. Remote Sensing** Passive and active means of aerial and satellite image acquisition, processing, analysis, and interpretation for research and decision making in agricultural, environmental, and natural resource applications. Dual listed with AGST 4473.
- AGST 6543. Geospatial Data and Models** Geospatial data frameworks and methods including site suitability and hydrological modeling. Prerequisite, AGST 5543 or AGST 4543.
- AGST 6843. Applied Geospatial Research** Design and execute applied geospatial research into Human-Environment Interactions. Prerequisites, AGST 5773 or AGST 4773; AGST 6543, or instructor permission.

Agriculture (AGRI)

- AGRI 5233. Experimental Agricultural Statistics** Fundamental concepts of experimental and statistical methods as applied to agricultural research.
- AGRI 5523. Applied Modern Biotechnology** An introduction to the principles and the applications of modern Biotechnology with emphasis on the applications of recombinant DNA technology to solve environmental and human health problems. The review of major biotechnology companies and bio-products is also included.
- AGRI 5433. Organic Agriculture Production** Principles and practices of organic production in plant and animal systems including: certification requirements, soil fertility, crop rotation, variety and breed selection, health management strategies, optimizing yield and quality, nutrition and feeding, ethical issues, processing, storage and marketing.
- AGRI 619V. Thesis**
- AGRI 6203. Intermediary Metabolism** Integration of biochemistry and physiology with nutrition of livestock and agronomic plants.
- AGRI 6213. Experimental Designs** A course that teaches the basic principles of statistics to be able to design experiments properly and to draw valid conclusions from the results. Includes material on the most common experimental designs in use, correlation, regression, and mean separation. Prerequisite, AGRI 4233.
- AGRI 6243. Environmental Sustainability** Study of environmental impacts of socio-economic development. Examines complex interactions between development and environment and discusses integrative systems approach for achieving sustainability in all human development activities. Agriculture, energy, air, development, cultural, economic and political issues related to sustainable natural resources addressed.
- AGRI 6303. Global Water Issues** Overview of current and historical water quality and quantity issues shaping human civilization. Emphasizes water issues facing regions of dense population and intensive agriculture. Importance of ground and surface water, ecosystem, sustainability, economic and policy issue of water are investigated.
- AGRI 6351. Graduate Seminar, Research Orientation** Provide pedagogy related to assembling graduate committee, developing and submitting degree plans, developing thesis or non-thesis research proposal and formally present the degree plan, literature background and plan of thesis or non-thesis research project to the faculty and other students.
- AGRI 6362. Graduate Communication Skills I: Professional Writing** Developing effective written work plans appropriate for the agricultural professional. Thesis students develop written work plans for thesis project; non-thesis students develop written work plans on current topics in their concentration area. Successful completion qualifies non-thesis students for the written portion of the comprehensive exam.

- AGRI 6371. Graduate Communication Skills II: Professional Presentations** Professional presentation development. Thesis students present and defend their completed thesis projects; non-thesis students present and defend their workplans. Thesis and non-thesis students will schedule the oral portion of the comprehensive exam in conjunction with their presentation in AGRI 6371. Pre/Co-requisite, AGRI 6362.
- AGRI 638V. Independent Study**
- AGRI 6393. Non Thesis Research Experience** Supervised research project, submitted to and approved in advance by the student's graduate advisory committee, resulting in a project report presented and defended to the student's advisory committee. A member of the committee must agree to serve as supervisor.

Animal Science (ANSC)

- ANSC 5633. Diseases of Farm Animals** The prevention, treatment, and control of common diseases, including problems of hygiene and sanitation. Prerequisite, ANSC 3633.
- ANSC 5643. Weanling and Yearling Management** Covers concepts and practices the nutrition, growth, health care and sales preparation of weanling and yearling horses. Course culminates with students producing an annual yearling sale.
- ANSC 5653. Equine Reproduction and Management** Concepts and practices in equine reproduction, including male and female reproductive anatomy, estrous cycles, sperm production, gestation, parturition, and breeding systems.
- ANSC 5663. Principles of Breeding** The basic principles underlying reproduction and the application of genetic principles to the improvement of farm animals with emphasis on selection, crossbreeding, linebreeding, and inbreeding.
- ANSC 5673. Digestive Physiology and Nutrition of Domestic Animals** A discussion of the role of nutrients and physiological and metabolic mechanisms involved in nutrient utilization by domestic animals. Emphasis will be placed on food-producing animals, horses, dogs, cats, and catfish. Prerequisite, ANSC 1613.
- ANSC 5683. Reproductive Physiology** A course that teaches the anatomy, physiology, endocrinology, and biochemistry of reproduction in farm animals. This course also introduces students to methods of manipulating reproduction within livestock systems. Management topics include artificial insemination, estrus synchronization, induction of parturition, embryo transfer and reproductive disease prevention.
- ANSC 5691. Laboratory for Advanced Animal Nutrition** This laboratory is designed to provide students with theories and skills associated with nutrition-related laboratory analyses.
- ANSC 5693. Integrated Poultry Management** Production principles and problem solving strategies used by vertically-integrated poultry companies. Prerequisite, ANSC 2703 or permission of professor.
- ANSC 5712. Advanced Animal Nutrition** Emphasis will be placed on computer-aided formulation of diets and supplements for domestic animals (livestock, poultry, pets, exotics and catfish). Class discussions will focus on industrial feed formulation problems, regulatory policies, and biotechnology in the feed industry. Prerequisite, ANSC 3613.
- ANSC 5723. Livestock Growth and Development** Principles of animal development from early embryo through whole animal growth and development; interaction of management, environmental, and internal factors. Prerequisites, ANSC 1613 and ANSC 3633. Spring.
- ANSC 5733. Endocrinology of Farm Animals** A study of the endocrinology system and its role in lactation, reproduction, digestion and metabolism.

- ANSC 5743. Equine Nutrition** Principles of nutrition and their application to feeding horses will be taught. Digestive physiology, sources of nutrients, feeding and grazing programs for various classes of horses and interactions of nutrition, diseases, and environment will be discussed.
- ANSC 6003. Current Issues in Animal Agriculture** A discussion of current issues affecting production and human use of animal products for food, fiber, and medicine (D).
- ANSC 679V. Thesis**

Food Science and Technology (FDST)

- FDST 5333. Food Microbiology** Relation of microorganisms to food spoilage; food borne illness and intoxication; general food and water quality; standard methods used for food and public health laboratories. Prerequisite, BIO 2103 Microbiology and BIO 2101 Microbiology Lab.
- FDST 6213. Food Security and Safety Assurance** Current issues in food supply chain including security and safety; Industrial and international food safety concerns; principles and practices of HACCP. Prerequisite, FDST 3203 Food Quality Assurance or FDST 2503 Food Safety and Sanitation.

Horticulture (HORT)

- HORT 5233. Commercial Vegetable Production** Origin, nutritive value, botany and cultural production practices of major vegetable crops, emphasizing sustainable practices, soil management, IPM for insects, diseases and weed, with discussion of organic practices and economics of wholesale farmers' markets.
- HORT 5323. Plant Propagation** Principles, practices, and methods employed in the propagation of plants, emphasizing anatomical features and physiological principles involved in sexual and asexual propagation. Lecture two hours, laboratory two hours per week. Prerequisite, HORT 2253.
- HORT 5333. Greenhouse and Nursery Production** Principles and practices involved in the production, management and marketing of greenhouse and nursery operations. Lecture and Lab.
- HORT 6253. Plant Nutrition** A study of nutrient elements within the plant; mechanism involved in nutrient absorption, transport and utilization.
- HORT 6263. Current Topics in Horticulture** Emphasis will be placed on such subjects as plant propagation, greenhouse construction and management.

Plant and Soil Science (PSSC)

- PSSC 5313. Plant Growth and Development** Auxins, gibberellins, and various other regulators of plant growth; also phenomena such as flowering and dormancy.
- PSSC 5343. Seed Production, Processing and Analysis** Methods of producing quality seeds and seed stocks, processing methods, and techniques of seed analysis and grading.
- PSSC 5413. Rice Production** A study of rice growth characteristics and rice production management systems.
- PSSC 5713. Soil Quality Assessment and Interpretation** A study of the indicators of soil quality, documentation and measurement of soil quality, interpretations of soil quality, impacts and effects of management on soil quality, and the role of conservation planning in improving soil quality.

- PSSC 5813. Soil Fertility** A study of the principles involved in maintaining and increasing fertility of the soil. Lecture two hours, laboratory two hours per week.
- PSSC 5853. Soil and Water** Study of soil and water management practices and strategies as it relates to agriculture, urban planning, and natural resources. Sustainability of the soil resource will be the main focus of this course.
- PSSC 5863. Soil Chemistry** Chemical properties and constituents of soils, determination of several important elements, application to soil fertility.
- PSSC 5873. Soil Physics** Soil physical properties and measurements, with emphasis on the relation to plant growth. Lecture two hours, laboratory two hours per week.
- PSSC 5883. Soil Microbiology** Soil organic matter in relation to soil organisms. Lecture two hours, laboratory two hours per week.
- PSSC 639V. Thesis**
- PSSC 6803. Soil and Crop Production** Soil classes as affecting crop production; fertility, drainage, texture, structure, organic matter.
- PSSC 6813. Investigative** Procedures in Agricultural Research Analytic laboratory procedures required for agricultural research. Lecture one hour, laboratory four hours per week.

Vocational Education (VOED)

- VOED 5503. Foundations of Adult Education in Vocational Education** Historical and philosophical development; comparison of vocational and non-vocational adult education; development and evaluation, teaching methods, and issues and trends in adult vocational education programming.
- VOED 5513. Activities for Teaching Career and College Readiness** Course provides opportunity for current or future teachers to study and demonstrate the essential knowledge and skills appropriate in the career development and college readiness courses. This will incorporate activity based learning using appropriate technologies.
- VOED 5533. Methods of Organizing and Teaching Career Development** A study of curricula, methods and techniques involved in teaching career development as related to the 15 occupational clusters in the world of work.
- VOED 5553. Educators In Industry** A course devoted to career awareness in relation to the modern workplace. The course is conducted in cooperation with local businesses and industries. Research, on-site instruction, and work experiences are involved.
- VOED 5573. Problems in Teaching Cooperative Education** Teaching cooperative education in all vocational services of program areas, history, purposes, administration, methods, organization and conduct of the programs.
- VOED 5583. Methods and Materials for Teaching the Adult** Emphasis on the methodologies, techniques and materials applicable to the adult learner based upon personal needs.
- VOED 6393. Non-Thesis Research Experience** Supervised research project, submitted to and approved in advance by the student's graduate advisory committee, resulting in a project report presented and defended to the student's advisory committee. A member of the committee must agree to serve as supervisor.
- VOED 6403. The Beginning Vocational Teacher Internship** This course assists beginning teachers develop a strong foundational experience in their first and second year on which they can build their professional careers.

- VOED 645V. Current Topics in Agricultural or Vocational Education** Emphasis will vary as issues in vocational education develop. Topics will include curriculum, mission, new technology and products and their effects upon local agricultural education or vocational education programs and student learning.
- VOED 6463. Resource Management in Vocational Education** Management of the fiscal affairs and capital facilities of a vocational-technical school is covered with emphasis on competency demonstration in an actual vocational-technical school setting.
- VOED 6473. School and Community Relations in Vocational Education** Procedures for initiating and maintaining productive working relationships between the local vocational- technical school and the community it serves are covered with emphasis on competency demonstration in an actual vocational-technical school setting.
- VOED 649V. Independent Study**
- VOED 6503. Program Management in Vocational Education** Procedures for planning, developing and evaluating vocational education programs are studied, with emphasis on competency performance in actual vocational education settings.
- VOED 6513. History and Principles of Vocational Education** Historical and philosophical development of vocational education, economic and social impact, issues, trends, principles and objectives of vocational education, and its relationship to other educational programs.
- VOED 6523. Student Services Management in Vocational Education** Procedures for the development and supervision of student services programs unique to vocational education programs are studied, with emphasis on competency performance in actual vocational education settings.
- VOED 6533. Human Resource Management in Vocational Education** Selection, supervision, management and evaluation of vocational school personnel, and the design and implementation of programs for staff development are studied with emphasis on competency performance in actual vocational education settings.
- VOED 6543. Administration and Supervision of Adult and Vocational Education** A study of the problems and procedures involved in the supervision and administration of vocational education. Considered from the national, state, and local levels.
- VOED 655V. Educators in Industry Internship** Emphasis of this experience is to assist educators in developing first-hand understanding of general and technical knowledge and skills that are relative to their classroom teaching situation
- VOED 6563. Instructional Management in Vocational Education** Procedures for planning, developing and evaluating instructional programs appropriate to vocational education are studied with emphasis on competency performance in actual vocational education settings.
- VOED 6573. Introduction to Research and Evaluation in Vocational Education** Course will include historical development of educational research and evaluation, interpreting published research, planning, conducting, writing, and evaluating research and assessments related to vocational education.
- VOED 658V. Laboratory Experiences in Vocational Education** Supervised activities designed to apply new and/or innovative approaches to the operation of a local vocational-technical school or program. The design, identification, and application of innovative and exploratory approaches will be stressed.
- VOED 659V. Thesis**

Neil Griffin College of Business

Accounting (ACCT)

- ACCT 5023. Advanced Accounting and International Issues** Advanced study of accounting concepts and problems in the areas of business combinations, partnerships, and international accounting. Prerequisite, C or better in ACCT 3033.
- ACCT 5113. Tax Accounting II** A continuation of Tax Accounting I. Emphasis in this course will be on Federal Income Tax Laws for Partnerships, Fiduciaries and Corporations. Prerequisites, ACCT 4013.
- ACCT 5133. Accounting Statistics** Statistical concepts and applications for accounting and auditing. Coverage includes sampling, probability, hypothesis testing, regression, data mining, and forecasting.
- ACCT 5183. Accounting Analytics** An in-depth analysis of the application of modern tools to analyze large financial and audit data sets (Big Data). Prerequisite, ACCT 4053 and ACCT 4133 or ACCT 5133 both with a C or better.
- ACCT 6003. Accounting for Planning and Control** The course is an introduction to the concepts of cost analysis and management control with a focus on the application of the conceptual framework of financial and managerial accounting to practical situations. Prerequisites, ACCT 2133 or 3 hours of MBA 500V.
- ACCT 6043. Tax Planning and Research** This course introduces the master's degree student to the basic concepts, methods, and tools of tax research. The coverage is broad, exploring the general framework of tax law. Prerequisite, ACCT 4113 or 5113.
- ACCT 6073. Applied Professional Research** This capstone course will culminate in a written issues paper and a presentation of the results of the research. Students must be in their last semester of coursework. A grade of B or better will be required for graduation.
- ACCT 6083. Ethics and Professional Responsibility** The course will provide the student with a framework for making ethical decisions in the context of accounting. In addition, the course will provide an introduction to professional responsibility with a particular focus on the CPA profession. Prerequisite, Admission to one of the College of Business Graduate Programs.
- ACCT 6093. Directed Individual Study** Detailed individual research directed by graduate faculty, resulting in a paper and presentation. Consent of instructor and approval of prospectus by graduate business programs director required.
- ACCT 6133. Controllership** Designed for students seeking a role in corporate accounting.. Topics include: Controller Responsibilities; cost systems; internal control systems; training and supervision; business planning; standard setting, control of costs. Prerequisite ACCT 3053 with C or better.
- ACCT 6153. Audit Analytics** An in-depth study of auditing standards and statistical concepts/ applications for auditing financial statements necessary to provide a statistically defensible audit opinion. Prerequisite, upper-level, undergraduate auditing course with a grade of "C" or better.
- ACCT 6173. CPA Examination Review 1** The course will review the FAR and BEC portions of the CPA exam with a special focus on complex topics and content that is covered less in a traditional accounting degree program but tested on the CPA Exam. Prerequisite, ACCT 3033 and ACCT 4053. Special course fee, \$1,200 or \$2,600 if course fee was not paid for ACCT 6183.

ACCT 6183. CPA Examination Review 2 The course will review the Audit and REG portions of the CPA exam with a special focus on complex topics and content that is covered less in a traditional accounting degree program but tested on the CPA Exam. Prerequisite, ACCT 3033 and ACCT 4053. Special course fee, \$1,200 or \$2,600 if course fee was not paid for ACCT 6173.

ACCT 670V. Accounting Internship Provides practical accounting experience by assigning students to work in a meaningful capacity in an outside organization. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours of credit may be applied to degree requirements. Prerequisite, Must have completed 15 hours of graduate courses toward degree as eligibility for internship and have an overall GPA of 3.0 or higher.

Economic Education (ECED)

ECED 506V. Seminar in Business Issues Advanced seminars on selected business topics designed to provide in-service teachers with an in-depth examination of the issues surrounding those topics in a variable credit format.

ECED 5513. Economic Education Workshop Provides in-service teachers a means for developing a fundamental understanding of our total economic system; its processes, problems, and potentialities. Teachers learn how to relate this understanding to current economic issues and policies. This workshop will satisfy the requirement for teacher certification. Open to in-service teachers, all grades.

ECED 5523. Special Issues and Methods in Economic Education A detailed examination of selected contemporary economic issues relevant to institutional economics and teaching methods/materials appropriate for grades kindergarten through 12. Prerequisites, ECED 4513/5513 and/or permission of professor.

Economics (ECON)

ECON 5323. Public Expenditure and Taxation Deals with public revenues, the theory of taxation, institutions and problems of the revenue system as a whole, and the effects of the taxing, spending, lending, and borrowing by government units upon the national income and employment. Prerequisites, ECON 2313, 2323 or 2333.

ECON 5333. Government Regulation of Business Survey of theoretical treatments of oligopoly, natural monopoly, and market failures; review of antitrust statutes applicable to price-fixing, monopoly, mergers, vertical restraints, and price discrimination; social welfare trade-offs associated with public regulation of electric, natural gas, cable TV, and telecommunications firms. Not available for credit for MBA degree. Prerequisites, ECON 2313, 2323.

ECON 6093. Directed Individual Study Detailed individual research directed by graduate faculty, resulting in a paper and presentation. Consent of instructor and approval of prospectus by graduate business programs director required.

ECON 6253. Econometrics Application of regression analysis on time series and cross sectional data to empirically verify economic theory. Various estimation techniques including regression and simultaneous equation models, serial correlation, heteroscedasticity, panel data and instrumental estimation methods are discussed.

ECON 6313. Managerial Economics A complete survey of price theory as applied to business decision making and a summary of public policy toward business. Prerequisites, ECON 2313, ECON 2323, or MBA 502V and 503V.

ECON 6333. Business Cycles and Forecasting Descriptive account of U.S. business cycles; survey of business cycle theory including New Keynesian, and new Classical approaches; review of forecasting techniques such as exponential smoothing and multiple regression. Prerequisite, ECON 2313.

ECON 6353. Environmental Economics This course provides analysis of some of the most important areas of environmental economics. Areas stressed include the economics of pollution control, the application of cost benefit analysis to the environment, the economics of sustainable development, environmental policy development, and global environmental issues. Prerequisites, ECON 3313, Microeconomic Analysis, equivalent, or consent of instructor.

ECON 6703. Economics Internship Provides practical economics experience by assigning students to work in a meaningful capacity in an outside organization. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours credit may be applied to degree requirements. Prerequisite, Must have completed 15 hours of graduate courses toward degree as eligibility for internship.

Finance (FIN)

FIN 6053. Financial Statement Analysis This course will provide an analytical framework for the valuation of corporations and corporate financial statements and a basis for making credit and investment decisions. Prerequisite, admission to the business graduate program.

FIN 6093. Directed Individual Study Detailed individual research directed by graduate faculty, resulting in a paper and presentation. Consent of instructor and approval of prospectus by graduate business programs director required.

FIN 670V. Finance Internship Provides practical finance experience by assigning students to work in a meaningful capacity in an outside organization. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours credit may be applied to degree requirements. Prerequisite, Must have completed 15 hours of graduate courses toward degree as eligibility for internship.

FIN 6723. Corporate Financial Management Organization, policy, administration, institutions, and instruments involved in financing the modern business corporation. Quantitative financial relations are measured and expressed. Financial plans are prepared for corporations in different industries and in different stages of the business cycle. Financial management appraised and business judgment developed through short problem and case methods. Prerequisite, FIN 3713 or MBA 501V.

FIN 6733. International Financial Markets The flow of capital between international markets. It specifically deals with balance of payments, international monetary system, international banking, exchange rates, international money and capital. The international financial problems related to economic development, Eurodollar and Petrodollar markets are also studied.

FIN 6743. Seminar in Finance Contemporary topics in financial management will be considered. The primary emphasis will be on current developments in the business finance area. Prerequisite, FIN 3713.

FIN 6813. Healthcare Finance Provides students with an understanding of the fundamental theories of finance, with a focus on applications in the healthcare industry.

Global Supply Chain Management (GSCM)

GSCM 6253. Seminar in Logistics Management A comprehensive study of business logistics network design and functional activities as they relate to the competitive and supply chain strategies of companies.

GSCM 6283. Global Supply Chain Management Systematic review of concepts involved in supply chain management, with emphasis on service suppliers, the organized movement of goods between firms in more than one nation, and the unique aspects of international logistics processes.

GSCM 6513. Logistics Operations Study of logistics operations and management techniques applied to warehousing/distribution center operations, purchasing and operation of transportation services, and logistics personnel management.

GSCM 6523. Sourcing and Procurement This course addresses the strategic and operational aspects of purchasing functions in private and public organizations. Emphasis will be placed on the development and evaluation of suppliers.

Healthcare Administration (HCA)

HCA 6003. Healthcare Policies and Ethics Study of the relationship and importance of developing healthcare policies and adherence to ethical standards from a systems perspective. No prerequisites. Required for all students in healthcare administration concentration and an allowed elective for standard MBA students.

HCA 6013. Current Issues in Health Care Administration Study of the major operational and quality issues and challenges facing today's healthcare organizations and their relationship to the effective and efficient administration of these organizations. No prerequisites. Required for all students in healthcare administration concentration and an allowed elective for standard MBA students.

HCA 6243. Service Marketing Strategy Development Approaches for establishing distinctive marketing strategies in for-profit/not-for-profit firms relative to service demanded by customers are developed. Included will be analysis of various service providers competing successfully for customers in the global market.

HCA 6423. Strategic Management An integrated capstone course focusing on the role of management in crafting and implementing strategy to achieve "fit" between an organization and its environment. An action-based approach involves student teams in developing and presenting strategic plans for public, private, profit and not-for-profit organizations. Prerequisite, All core courses or last semester of enrollment.

HCA 6703. Internship in Healthcare Administration Provides practical healthcare administration experience by assigning students to work in a meaningful capacity in an organization. 120 clock hours onsite in required. A detailed paper will be required upon completion of assignment. Must have approval of proposal by graduate program director. Must have completed 15 hours of graduate courses toward the degree. For Healthcare Emphasis majors only.

International Business Studies (IBS)

IBS 5103. International Trade The economic theory and history of international trade. Foreign exchange and balance of payments will be stressed. Prerequisites, ECON 2313, 2323.

IBS 6143. Seminar in International Human Resource Management International Human Resource Management provides an introduction to the critical issues facing organizations in simultaneously managing their human resources both at home and abroad. Extensive coverage of preparing expatriates for assignments abroad and the issues they will face as managers in a diverse cultural setting. Prerequisite, Admission to the MBA program.

IBS 6283. Global Social Entrepreneurship Social entrepreneurship combines the passion of a social mission with discipline and innovation commonly associated with business startups. Through case studies and research, students will create social entrepreneurship business plans addressing issues of poverty, the environment, and social justice.

IBS 6293. Seminar in International Corporate Social Responsibility This course consists of on-site examination of organizations, agencies, or locales in a various regions of the world. Students will be required to prepare a project that involves social entrepreneurship and/or social awareness in an expatriate setting. After project is prepared, students will be required to implement their respective projects in a 10 day semester break with the intent of making a difference in country other than their home country. Prerequisite, Admission to the MBA program.

IBS 6323. Emerging Markets Western business curriculum is founded on theory and research generated in developed countries, where political, economic, legal, and social institutions are well-developed. This course is designed to train future managers to successfully recognize and contend with the unique emerging market country environment. Prerequisite, Admission to the MBA program.

IBS 6343. International Business and Investment This course offers an integrated treatment of theory and policy in international business trade and investment. It deals with the role of government to regulate, restrict, promote or otherwise influence the conduct of international trade and investment. The structure, performance and business strategies of multinational corporations in transcending national jurisdictions are studied. The product planning for export markets and export pricing strategies are analyzed. Emphasis is given on European markets, less developed countries and the Soviet Union.

IBS 6593. Global Strategic Initiatives An integrated course examining the complex concepts and issues involved with competing in a global economy. Students will be placed in team competition to present cases to a panel of business professionals. Must be taken after successful completion of 24 hours of graduate work.

IBS 670V. International Business Internship Provides practical international business experience by assigning students to work in a meaningful capacity in an outside organization. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours credit may be applied to degree requirements. Prerequisite, Must have completed 15 hours of graduate courses toward degree as eligibility for internship.

Law (LAW)

LAW 6023. Law and Ethics in Business A wide variety of problems in business ethics will be considered and, where appropriate, related to case and statutory law. The legal relationship of employers with employees and the broader community will be discussed.

LAW 6033. Cyberlaw and E-Commerce A presentation of legal issues involved when transacting business electronically. Covered topics include online contracting, online marketing, e-commerce and dispute resolution, proper use of intellectual property, electronic privacy, and Internet-use policies. Prerequisite, LAW 2023 or instructor permission.

Master of Business Administration (MBA)

MBA 500V. Survey of Accounting Concepts of Accounting for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required.

MBA 501V. Survey of Finance Concepts of Finance for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required. Prerequisite, ACCT 2133 or MBA 500V.

MBA 502V. Survey of Microeconomics Concepts of Microeconomics for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required.

- MBA 503V. Survey of Macroeconomics** Concepts of Macroeconomics for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required.
- MBA 507V. Survey of Law** Concepts of Legal Environment of Business for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required.
- MBA 508V. Survey of Statistics** Concepts of Business Statistics for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required.
- MBA 509V. Survey of Operations Management** Concepts of Operations Management for non-business majors pursuing graduate degrees in business. Intensive outside readings and assignments are required.

Management (MGMT)

- MGMT 6001. Adventures in Leadership and Team Building** Self assessment tools for developing leadership skills and practice in group dynamics. Individual growth and team building through an activity retreat. Must be taken during the first or second semester of the student's program.
- MGMT 6003. Organizational Behavior in Healthcare Organizations** Study of management theories and concepts describing human behavior applied in the healthcare organizations. Emphasis is placed on professionalism, medical staff relations, governance, stress, attitudes, leadership, instruction, communication, conflict resolution, and teamwork.
- MGMT 6013. Human Resource Management for Healthcare Organizations** Study of planning for, acquiring, retaining and maintaining human resources for healthcare services providers.
- MGMT 6023. Fundamentals of Project Management** Examines the practice and principles of project management. Topics include identifying and selecting projects, developing project proposals, sequencing workflows, estimating project duration, and budgeting.
- MGMT 6093. Directed Individual Study** Detailed individual research directed by graduate faculty, resulting in a paper and presentation. Consent of instructor and approval of prospectus by graduate business programs director required.
- MGMT 6103. Applied Project Management** Applies principles of project management using case studies and advanced simulations. A significant portion of this course is dedicated to the use of project management-specific software for simulations. Prerequisite, MGMT 6023.
- MGMT 6143. Organization Theory** Examines organizations as interdependent systems, stressing structural, environmental, and international considerations using theories and perspectives from sociology, economics, psychology, and strategic management. Stresses practical implications for managing dynamic organizations.
- MGMT 620V. Certified Associate in Project Management Prep Course** Provides a comprehensive examination of the practice of project management by blending theory with practical examples. This course qualifies students to become certified through the Project Management Institute via the industry-recognized Certified Associate in Project Management (CAPM®) credential. Prerequisites, MGMT 6023 and MGMT 6103.
- MGMT 630V. Project Management Professional Prep Course** Prepares students to take the Project Management Professional (PMP) Examination. Topics covered include an intensive review of the project management framework, PMP practice questions, and various study strategies and test taking tips. Prerequisites, MGMT 6023, MGMT 6103, and MGMT 620V.

MGMT 6313. Management Consulting Focuses on requirements to become a successful management consultant. Students will experience a live consulting engagement with clients from a variety of sectors. Key activities include organizational diagnosis, progress review, preparation of consulting proposal, and presentation of consulting report to client. Prerequisites, ACCT 6003, FIN 6723, MIS 6413, and MKTG 6223.

MGMT 640V. Agile Project Management Examines and applies agile techniques to project management. Topics covered include the Agile Scrum and Lean Kanban techniques. Students apply these techniques using hands on assignments and exercises. Prerequisites, MGMT 6023 and MGMT 6103.

MGMT 6403. Seminar in Organizational Behavior Designed to introduce students to the ways individuals and teams work in organizations, with a special emphasis on practical applications for managers. The objective is to improve students' abilities to diagnose, analyze, and take effective action in their organizational work.

MGMT 6413. Industrial Relations The factors which condition labor-management relations. The nature and significance of labor disputes are analyzed, together with factors involved in their solution. Special attention is given to the growing importance of wage policies and their impact upon labor-management relations. Prerequisite, MGMT 3123.

MGMT 6423. Strategic Management An integrated capstone course focusing on the role of management in crafting and implementing strategy to achieve "fit" between an organization and its environment. An action-based approach involves student teams in developing and presenting strategic plans for public, private, profit and not-for-profit organizations. Prerequisite, All core courses or last semester of enrollment.

MGMT 6433. Entrepreneurship Explores the nature of entrepreneurial activity, the basics of business plan development, new venture creation, and small business strategic planning.

MGMT 6443. Management Development Strategies The Human Resource Management Function with emphasis on the development of business structures, policies and techniques used in developing human resources in the contemporary business organization.

MGMT 6453. Seminar in Contemporary Management Issues A comprehensive study of selected concepts and theories in the field of management. Prerequisite, permission of professor.

MGMT 6463. Leadership Development Leadership theories and their applications are examined. Development of leadership skills is emphasized.

MGMT 670V. Management Internship Provides practical management experience by assigning students to work in a meaningful capacity in an outside organization. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours credit may be applied to degree requirements. Prerequisite, Must have completed 15 hours of graduate courses toward degree as eligibility for internship.

MGMT 6793. Business Ethics and Social Responsibility Examines ethical decision making and the various issues in business including social responsibility, environmental protection, privacy, individual rights, OSHA, product liability, equality of opportunity and the morality of capitalism.

Management Information Systems (MIS)

MIS 6093. Directed Individual Study Detailed individual research directed by graduate faculty, resulting in a paper and presentation. Consent of instructor and approval of prospectus by graduate business programs director required.

MIS 6103. Fundamentals of Business Analytics Examines basic tools for making informed managerial decisions from business data. Topics include descriptive statistics, correlation, regression analysis, data mining, simulation, optimization, and linear programming.

- MIS 6203. Business Intelligence Using Case Studies** Uses case studies to apply tools and techniques from business analytics to create business intelligence that can inform decision making. Specific topics include using Python to create data tables and to enable data visualization. Prerequisite, MIS 6103.
- MIS 6303. Big Data Analytics with Amazon Web Services** Applies Amazon Web Services (AWS) to analyze data sets that are too large or complex for traditional data-processing software. AWS is used to build, secure, and maintain analytics solutions for big data. Course content prepares students for AWS certifications. Prerequisite, MIS 6103.
- MIS 6403. Data Driven Stratic Insights** Prepares students to derive strategic insights from business analytics by using data-intensive case studies. An emphasis is placed on identifying the appropriate business analytics given the business insights needed. Cloud-based software platforms are utilized to work with large datasets. Prerequisite, MIS 6103.
- MIS 6413. Management Information Systems** The spectrum of the information needs of organizations. (1) Provides understanding of the uses of information by operational subsystems such as production, finance, marketing, personnel, etc. (2) Provides an analysis of the information needs of middle and top-level management, and the use of information systems to aid managers in the decision-making process. (3) Provide student with an understanding of the use of information systems to gain competitive advantage and how to manage information as an organizational resource.
- MIS 6423. Network and Telecommunication Management** Study of the technical and managerial issues related to design, operation and maintenance of computer networks. Topics include communication architectures, LANs and WANs, the World Wide Web, and the Internet.
- MIS 6453. Global Electronic Commerce** Provides an understanding of e-commerce as a modern business methodology that addresses the needs of organizations, merchants, and consumers for the delivery of goods and services using information technology. Prerequisite, Graduate standing, basic computer literacy.
- MIS 6463. Information Systems Analysis and Design** Covers basic structured analysis strategies and tools available for the systems study. Discusses the techniques for designing and implementing structured systems from logical designs.
- MIS 6473. Data Mining** Study of the knowledge discovery process, and how decision support systems (DSS) can be utilized to incorporate data mining algorithms for decision-making.
- MIS 6483. Supply Chain and Enterprise Systems** Study of the integration of internal and external supply chains. Adopts both managerial and information technology perspectives, including SCM, ERP, MRP II, and CRM along with supporting processes.
- MIS 6493. Seminar for Information Systems** A study of new concepts, topics, and issues in Information Systems as heralded in current literature. Students are expected to research and report on pertinent topics as to the effects on management and the impact on society.
- MIS 6513. Healthcare Informatics** A study of the emerging field of health and medical informatics with emphasis on generating, storing and accessing healthcare information for management decision making, analyses and evaluation, and research.
- MIS 6523. Simulation for Predictive Decision-Making** Modeling and representing real-world, complex systems on computers to study their behavior in uncertain environments through well-structured experimentation to identify best course of action by predicting the outcomes of various decisions quickly and without taking real risks. Prerequisite, MBA 508V or a prior course in probability and statistics.
- MIS 6543. Business Analytics** This course introduces MBA students to the basic tools in using data to make informed management decisions. This course presents a normative approach to making decisions in one's personal and professional life. It covers optimization, linear programming, simulation, business modeling, data mining and business intelligence. Prerequisite, admission to the MBA program.

- MIS 6573. Advanced Data Mining** An in-depth study of the knowledge discovery process and how it is harnessed for decision support systems (DSS). Emphasis is placed on various DSS models that result from data mining operations including multiple regression, logistic regression and artificial neural networks. Prerequisite, MIS 6473.
- MIS 670V. MIS Internship** Provides practical MIS experience by assigning students to work in meaningful capacities in outside organizations. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours credit may be applied to degree requirements. Prerequisites, Must have completed 15 hours of graduate courses toward degree.
- MIS 671V. Thesis**

Marketing (MKTG)

- MKTG 6093. Directed Individual Study** Detailed individual research directed by graduate faculty, resulting in a paper and presentation. Consent of instructor and approval of prospectus by graduate business programs director required.
- MKTG 6213. Healthcare Marketing** Management of the interface between healthcare providers and the external environment to promote and position healthcare organizations.
- MKTG 6223. Strategic Marketing** Examines the concepts and processes for gaining competitive advantage in the marketplace. Students will investigate and develop strategies relating to the escalating importance of providing customer satisfaction, responses to diversity in the marketplace, development of new products, and recognition of the challenges from global competition.
- MKTG 6233. Promotional Strategy** Planning and analysis of the promotion mix in the areas of advertising, public relations, personal selling, and sales promotion with particular emphasis upon the marketing implications and future direction of such issues. The focus is on current readings, case analyses, guest speakers, and development of promotional strategy plans.
- MKTG 6243. Services Marketing Strategy** Approaches for establishing distinctive marketing strategies in for-profit/not-for-profit firms relative to service demanded by customers are developed. Included will be analysis of various service providers competing successfully for customers in the global market.
- MKTG 6263. Seminar in Contemporary Marketing Issues** A comprehensive study of selected concepts and theories in the field of marketing. Prerequisite, permission of professor.
- MKTG 670V. Marketing Internship** Provides practical marketing experience by assigning students to work in a meaningful capacity in an outside organization. Detailed paper required. Must have approval of Internship Proposal by graduate business programs director and department chair. Only three hours credit may be applied to degree requirements. Prerequisite, Must have completed 15 hours of graduate courses toward degree as eligibility for internship.

College of Education and Behavioral Science

DEPARTMENT OF EDUCATIONAL LEADERSHIP, CURRICULUM AND SPECIAL EDUCATION

Adult Education (ELAE)

- ELAE 5513. Introduction to Adult Education** An in-depth study of the growth and development of adult education in the United States. Analysis of contemporary issues and trends in adult education.
- ELAE 5523. Psychology of the Adult** A study of the adult with emphasis on (1) learning theories and developmental processes; (2) major contributors to the adult learning discipline; and (3) psychological aspects of middle and later life challenges and crises.
- ELAE 5533. Methods and Materials for the Adult Learner** Theory and application of methods and materials essential to effective instruction in adult education. Emphasis on writing objectives, classifying content, classroom management, and utilizing media.
- ELAE 5543. Teaching Reading to Adults** Problems in teaching reading to adults. Special emphasis on individual differences, materials of instruction, and measuring reading ability.
- ELAE 5553. Practicum in Adult Education** A series of educational experiences designed to place students in a cooperative relationship with an experienced adult educator while under university supervision. Emphasis is placed on practice teaching and related on-the-job activities of adult educators.
- ELAE 5563. Special Problems in Adult Education** Individual research on problems related to the education of adults. Prerequisite, permission of professor.

Community College Education (CCED)

- CCED 7003. The Community College** A study of the history, philosophy, nature, and functions of the community college movement
- CCED 7013. Learner-Centered Education** A study of the nature of the teaching learning process including emphases on community college curriculum planning, educational technology, and evaluation procedures.
- CCED 7023. Field Study** An intensive study of a selected and approved problem in community college teaching. Prerequisite, screening into SCCT degree program.
- CCED 7033. Special Problems in Community College Education** Prerequisite, screening into SCCT degree program Curriculum and Instruction.

College Student Personnel Services (CSPS)

- CSPS 6323. Advising College Students.** Examination of the theoretical and organizational models for effective advising, including legal issues, assessment and advising modes of delivery.

- CSPS 6333. Student Personnel Services in Higher Education** An overview of higher education with emphasis on student personnel service components.
- CSPS 6343. College Student Development** A study of contemporary theory and research related to student development with emphasis on applications to college student personnel services.
- CSPS 6353. Enrollment Management Theory and Practice in Higher Education** The strategic elements of enrollment, including leveraging key components (international, online, graduate/undergraduate, student services, retention and recruiting) into the development of an enrollment management plan.
- CSPS 6363. Development and Advancement in Higher Ed** This course is intended to provide a theoretical framework. Restricted to Masters in College Student Personnel Services.
- CSPS 6373. Multicultural Dynamics in Higher Education** This course will help professionals effectively support students from increasingly diverse backgrounds. With changes occurring in the world's population demographics, the need for culturally-competent professionals is crucial. We will explore cognitive, affective, and behavioral considerations in supporting culturally diverse students. Restricted to Masters in College Student Personnel Services.
- CSPS 6383. Practicum in College Student Personnel Services** Supervised practice (minimum of 100 clock hours) in a broad array of services typical of student affairs Requires at least 40 hours of direct service with clients, including individual counseling and a minimum 10 hours of group work; at least one hour per week of individual supervision with a program faculty member or designee; and at least one and one-half hours per week of group supervision with a program faculty member. Prerequisites, CSPS 6333, CSPS 6343, COUN 6353, and permission of degree program committee CSPS 6333 must be taken before or concurrently with CSPS 6383.
- CSPS 6393. Assessment, Accreditation, and Accountability in Higher Education** Students examine and evaluate current polices in accreditation, performance-based funding, and federal compliance and analyze best practices in assessment of student learning in higher education. Students design curricular and co-curricular assessments at the course, program, and university levels. Restricted to Masters in College Student Personnel Services.

Methods and Materials - Secondary Education (ED__)

- EDEN 5553. Methods and Materials for Teaching English in the Secondary School** The study of models of teaching and instruction and of assumptions underlying current teaching-learning practices for English in secondary schools. Opportunities to develop skills and strategies for teaching language, literature, and composition to culturally diverse students.
- EDEN 5653. Methods and Materials in the Teaching of English in the Middle School** Middle school methods focuses on understanding the special needs of the middle school student and applying this to the techniques for teaching language, literature, and composition. Through reading, research, demonstration, and class discussion, the students learn about and practice appropriate techniques for culturally diverse middle school students.
- EDAR 5523. Methods and Materials in the Teaching of Art** Emphasis on the practical application of art in the secondary school. Techniques and strategies of teaching art, developing an art curriculum, assessing and motivating students. Prerequisite, Admission to Teacher Education Program.
- EDMA 5563. Methods and Materials for teaching Mathematics in the Secondary School** Historical and current trends in teaching mathematics and the secondary school level. Major Emphasis on content and concept development and their application in the mathematics classroom. Practice in use of appropriate technologies, applying teachings techniques, and formulating student evaluations will be emphasized.
- EDSC 5593. Methods and Materials for Teaching Science in the Secondary School** Philosophical bases, teaching techniques, curriculum development, classroom management, facility resources, and equipment are emphasized.

EDSS 5603. Methods and Materials for Teaching Social Studies in the Secondary School Historical and current trends in teaching social studies at the secondary school level Major emphasis on content and concept development and their application in the social studies classroom. Practice in writing objectives, applying teaching techniques, and formulating student evaluations.

EDSS 6103. MSE Social Science Capstone Portfolio Final course for MSE Social Science students featuring the creation of an advanced teaching and technology portfolio aligned with the National Council for the Social Studies pedagogical and thematic standards. Restricted to MSE Social Science students. Prerequisite, Instructor permission.

EDSP 5543. Methods and Materials for Teaching Speech Communication and Theatre In the Secondary Schools Methods and resources for teaching speech communication and theatre in the secondary schools. Emphasis is on teaching strategies for interpersonal communications, group dynamics, and critical thinking, reasoning, and diversity. The development of a portfolio is required.

Educational Leadership (ELAD)

ELAD 6003. School and Community Relations A study of concepts, programs and procedures for establishing and maintaining positive relations between the school, its constituents, and related agencies. Areas covered include media and public relations, publications, community and parental involvement. Special emphasis is on transitional student support services through interagency collaboration with non-school agencies such as social services, law enforcement, and providers of direct services to persons with disabilities.

ELAD 6013. Secondary School Administration A study of the organization and administration of the secondary school. Emphasis upon the pertinent research, and discussion of current issues facing the secondary principal.

ELAD 6023. Elementary School Administration A study of the organization and administration of the elementary school. Emphasis upon the pertinent research, and discussion of current issues facing the elementary principal.

ELAD 6033. Administration and Supervision of Special Education This course will provide an in-depth study of and an exploration into the administrative processes of special education.

ELAD 6053. Planning and Resource Allocation This course addresses planning and resource allocation in public schools. Special attention is given to site-based management responsibilities of the principal.

ELAD 6073. School Law A study of the legal aspects of education for the purpose of familiarizing school personnel with the legal features of school organization and administration. The course will consider constitutional and statutory provisions, but the major emphasis will be directed to the study of court decisions relating to education.

ELAD 6203. Ethical Leadership This course presents an overview of educational administration for practitioners within the context of ethical and professional behavior.

ELAD 6273. Legal Aspects of Higher Education A study of the legal aspects of education for the purpose of familiarizing college and university personnel with the legal features of higher education organization and administration. The course will consider constitutional and statutory provisions, but the major emphasis will be directly to the study of court decisions relating to American post-secondary education.

ELAD 6313. Higher Education Finance An examination of the economic principles and fundamental operational financial procedures which affect the American colleges and universities

ELAD 6323. Organization and Governance of Higher Education The study of leadership in higher education for the purpose of familiarizing college and university personnel with organization and governance in higher education institutions.

ELAD 6333. Organization and Administration of College Student Personnel Services Study of the organization and administration of college student affairs programs and services. Organizational and management principles and practices used within college student affairs settings are discussed.

ELAD 6393. Supervised Internship 100 hour A 100 clock hour supervised clinical experience in a school district with emphasis on authentic problems and activities that require students to demonstrate leadership, skills, and practices integral to the performance of the school district administrator. Prerequisite, completion of all required program coursework, portfolio, and/or permission of department chair.

ELAD 6423. Ethical and Legal Issues in Special Education A study of the legal aspects of special education with emphasis given to the following six principles of special education law: (1) zero project, (2) nondiscriminatory classification, (3) individualized and appropriate education, (4) least restrictive placement, (5) due process, and (6) parent participation.

ELAD 650V. Thesis

ELAD 6573. Leading School Improvement This course examines the qualities, dispositions, and characteristics of effective leaders, along with research and evaluation strategies for school improvement.

ELAD 6593. Supervised Internship This capstone course provides students with practical hands-on clinical experience in a school setting. The course will focus on authentic problems and activities that require students to demonstrate leadership skills, and practices integral to the performance of the school administrator at the building level. Prerequisite, Completion of portfolio.

ELAD 680V. Independent Study

ELAD 7003. School and Community Relations A study of concepts, programs and procedures for establishing and maintaining positive relations between the school, its constituents, and related agencies. Areas covered include media and public relations, publications, community and parental involvement. Special emphasis is on transitional student support services through interagency collaboration with non-school agencies such as social services, law enforcement, and providers of direct services to persons with disabilities. Dual listed as ELAD 6003.

ELAD 7013. School Personnel Administration An examination of emerging professional responsibilities and ethical practices; current selection, retention, and promotion practices; and designs for salary schedules and fringe benefits.

ELAD 7023. School Business Management A consideration of systems and procedures for accounting, budget planning and preparation, auditing, purchasing, and bonding.

ELAD 7033. Contemporary Issues in American Education Analysis of significant contemporary issues confronting American education.

ELAD 7043. Management of Operational Systems for Learning A comprehensive study of educational facilities, transportation, and food services programs for school district administrators. Administrators learn to use data logically and systematically to provide effective services and make decisions.

ELAD 7053. Planning and Resource Allocation This course addresses planning and resource allocation in public schools. Special attention is given to site-based management responsibilities of the principal. Dual listed as ELAD 6053.

ELAD 705V. Special Problems in Educational Administration

ELAD 7073. Schooling in a Pluralistic Society An examination of diverse cultural backgrounds represented in the nation's schools. Emphasis is placed on understanding educational and cultural issues along with identifying agencies and programs that are designed to facilitate and nurture learning environments.

ELAD 7103. School District Administration An examination of the effective performance patterns for school district superintendents with emphasis given to the relationships among the local board of education, superintendent, school personnel, and the community.

ELAD 7173. School Law A study of the legal aspects of education for the purpose of familiarizing school personnel with the legal features of school organization and administration. The course will consider constitutional and statutory provisions, but the major emphasis will be directed to the study of court decisions relating to education. Dual listed as ELAD 6073.

ELAD 7203. Ethical Leadership This course presents an overview of educational administration for practitioners within the context of ethical and professional behavior. Dual listed as ELAD 6203.

ELAD 7473. Field Study An intensive study of a selected and approved administrative problem.

ELAD 7493. Supervised Internship A supervised clinical experience in a school district with emphasis on authentic problems and activities that require students to demonstrate leadership, skills, and practices integral to the performance of the school district administrator. Prerequisite, Completion of all required program coursework, portfolio, and/or permission of department chair.

ELAD 750V. Thesis

ELAD 7573. Leading School Improvement This course examines the qualities, dispositions, and characteristics of effective leaders, along with research and evaluation strategies for school improvement.

ELAD 780V. Independent Study

ELAD 8043. Advanced Organizational Theory and Inquiry An examination of the theoretical assertions and empirical knowledge claims regarding the behavior of organizations with emphasis on implications of recent developments for leadership practice. Prerequisite, Admission to doctoral program.

ELAD 8053. Perspectives on an Academic Career in Higher Education A focus on preparing future faculty for balancing various roles in higher education, addressing freedoms and responsibilities associated with teaching, research, and service along with ideas for securing employment and advancing in a professional career. This course is restricted to PhD students or with instructor permission.

ELAD 8203. Politics of Education This course explores the political perspective of school administration and provides the practitioners with strategies and realizations critical to being a successful political influence in schooling. Prerequisite, Admission to doctoral program.

ELAD 8211. Research Seminar I: Dissertation Chapter 1 Synthesizes concepts and knowledge from each corresponding seminar and previous course content to build a systems orientation toward change and an understanding of the components and process of developing Chapter 1 of a Dissertation. Prerequisites, admission to doctoral program.

ELAD 8221. Research Seminar II: Dissertation Chapter 2 Synthesizes concepts and knowledge from each corresponding seminar and previous course content to build a systems orientation toward change and an understanding of the components and process of developing Chapter 2 of a dissertation. Prerequisites, ELAD 8211 and admission to doctoral program.

ELAD 8231. Research Seminar III: Dissertation Chapter 3 Synthesizes concepts and knowledge from each corresponding seminar and previous course content to build a systems orientation toward change and an understanding of the components and process of developing Chapter 3 of a Dissertation. Prerequisites, ELAD 8211, ELAD 8221, and admission to doctoral program.

ELAD 8243. Epistemology and Pedagogy An overview of the major concepts of epistemology and learning with emphasis on understanding research theories and best teaching practices. This course is restricted to students in the educational leadership doctorate program (Ph.D.).

ELAD 8246. Dissertation Seminar I: Dissertation Chapter 4 Synthesizes concepts and knowledge from each corresponding seminar and previous course content to build a systems orientation toward change and an understanding of the components and process of developing Chapter 4 of a Dissertation. Prerequisites, ELAD 8211, ELAD 8221, ELAD 8231 and admission to doctoral program.

ELAD 8253. Educational Policy and the Law A study of the relationship of law and policy, and legal decision and educational practice. Among issues addressed are the relationship between schooling and the state, the nature and scope of students' and teachers' substantive and procedural rights, and the many meanings of educational opportunity. Emphasis is given to consideration of the tension among political, professional, and legal authority at the local level and the distinctive policy role of the federal government. Prerequisite, ELAD 6073 and admission to doctoral program.

ELAD 8256. Dissertation Seminar II: Dissertation Chapter 5 Synthesizes concepts and knowledge from each corresponding seminar and previous course content to build a systems orientation toward change and an understanding of the components and process of developing Chapter 5 of a dissertation. Prerequisite, ELAD 8211, ELAD 8221, ELAD 8231, ELAD 8246, and admission to doctoral program.

ELAD 8313. Doctoral Seminar: Educational Leadership Practices I A study of the professional applications of theoretical and empirically-based leadership practices with specific application to administration of educational institutions. Prerequisite, Admission to doctoral program and permission of the professor.

ELAD 8333. Organization Development in Education Application of research and practice to problems of change and innovation in education. Assessment and intervention strategies for school improvement efforts will be examined. Prerequisite, Admission to doctoral program.

ELAD 8343. Comparative Education A study of international education with a focus on acquiring knowledge associated with global education practices and their implications in a rapidly changing society. This course is restricted to students in the educational leadership doctorate program (Ph.D. & Ed. D.).

ELAD 8411. Succeeding in the PhD Program Emphasis on tasks and roles students in PhD programs must master to maximize their opportunity for success. Prerequisite, Entry into the Center for Excellence in Education PhD program.

ELAD 8421. Designing Surveys Emphasis on constructing survey instruments, survey research methods, and an introduction to scaling methods. Prerequisite, ELAD 8411 Succeeding in a Doctoral Program. Course is open only to students in the CEE PhD program.

ELAD 8431. Experimental Research Design Emphasis on designing and conducting Experimental and Quasi-experimental research. Prerequisite, ELAD 8411 Succeeding in a Doctoral Program and ELAD 8421 Designing Surveys. Course is open only to students in the Center for Excellence in Education PhD program.

ELAD 8501. Dissertation I: Prospectus Supervised development and composition of the dissertation prospectus.

ELAD 8511. Dissertation II: Chapter One Supervised composition of the dissertation introduction. Prerequisite, ELAD 8501.

ELAD 8521. Dissertation III: Chapter Two Supervised composition of the dissertation literature review. Prerequisite, ELAD 8511.

ELAD 8531. Dissertation IV: Chapter Two Approval Final defense and approval of the dissertation proposal. Prerequisite, ELAD 8521.

ELAD 8532. Dissertation V: Chapter Three Supervised composition of the dissertation methodology. Prerequisite, ELAD 8531.

ELAD 8613. Dissertation VI: Chapter Four Data Collection Supervised data collection for the dissertation. Prerequisite, ELAD 8532.

ELAD 8623. Dissertation VII: Chapter Four Data Analysis Supervised data analysis and composition of the dissertation results. Prerequisite, ELAD 8613.

ELAD 8633. Dissertation VIII: Chapter Five Supervised composition of the dissertation conclusions. Prerequisite, ELAD 8623.

ELAD 880V. Doctoral Research

ELAD 889V. Dissertation

Curriculum and Instruction (ELCI)

- ELCI 5013. Curriculum and Assessment Instructional Theory and Practice** The course will engage students in the application of basic instructional techniques and fundamentals of educational measurements relevant to classroom situations. It is an option of candidates pursuing the Masters in Educational Theory and Practices.
- ELCI 5313. Coaching Assessment of Student Learning** Focus on skills and knowledge needed to support collaborative inquiry to assess student learning in order to close the gap between preK-12 student learning and intended learning goals. This course is restricted to students enrolled in the Instructional Facilitator (IF) Certification program or with instructor permission.
- ELCI 5403. Facilitating Instruction through Collaborative Partnerships with Adult Learners** Focus on gaining skills and knowledge for facilitating collaborative partnerships with adult learners to increase their preK-12 students' academic achievement. This course is restricted to students enrolled in the Instructional Facilitator (IF) Certification program or with instructor permission.
- ELCI 5513. Teaching Global Perspectives** This course is intended to promote effective teaching of global perspectives through various subject matter in elementary and secondary schools. Course emphasis is the identification, demonstration, and critical evaluation of appropriate instructional strategies and resources.
- ELCI 580V. Special Topics Workshop** A designed series of learning experiences to address the specific needs of in service teachers, administrators, or special services personnel. This course may not be used to satisfy any degree requirements. Course can be repeated for credit.
- ELCI 6043. Reflective Teaching** A focus on assisting teachers to enhance their reflective skills via observation data collection techniques. This course is restricted to students in the MSE in Educational Theory and Practice or with permission from the course instructor.
- ELCI 6063. Curriculum Management** Presents perspectives, skills, and processes necessary for administrators to manage district and building level curriculum and to formalize the curriculum decision-making process.
- ELCI 6083. Supervision and Evaluation of Teaching** This course combines attributes of supervising teaching with the formal aspects of teacher evaluation. Emphasis is upon adult development, clinical supervision, and evaluation process and models extant in public schools.
- ELCI 6093. Educational Media** This course is designed to provide teachers, administrators, supervisors, and librarians with the skills and knowledge required to effectively use instructional media in the classroom and for professional presentations, and to provide them with an understanding of the requirements for an effective multimedia center.
- ELCI 6323. Elementary School Curriculum** This course stresses principles and criteria for the selection and organization of instructional materials and activities for the elementary school.
- ELCI 6423. Middle School Curriculum** A practical and contemporary study of the organization and development of middle school curricula. Emphasis is on the study of subject field content trends, scheduling, curriculum scope and sequence, and student activities.
- ELCI 6493. Curriculum Internship** This capstone course provides students with practical hands-on clinical experience in a school setting. The course will focus on authentic problems and activities that require students to demonstrate dispositions, skills, and practices integral to the performance of the curriculum specialist. Prerequisite, Completion of portfolio.
- ELCI 6523. Secondary School Curriculum** Curriculum planning, improvement, and evaluation in the secondary schools. Emphasis upon the selection and organization of content, the study of factors affecting curriculum revision, and current issues of curriculum development in the modern secondary school.
- ELCI 6533. Theories of Instruction** A review of learning theories followed by an intensive study of various models of teaching available to the classroom teacher with emphasis upon mastery of selected models.

- ELCI 675V. Thesis**
- ELCI 6763. National Boards Teacher Certification Experiential Learning** This course may be used to provide graduate credit for Candidates receiving recommendations for three hours of graduate credit from the American Council on Education (ACE) for completing the process (i.e. having ten Scorable entries) for National Boards Teacher Certification. <https://apps.nbpts.org/ace/begin.cfm>
- ELCI 6766. National Boards Teacher Certification Experimental Learning** This course may be used to provide graduate credit for candidates receiving recommendations for six hours of graduate credit from the American Council on Education (ACE) for receiving National Boards Teacher Certification. <https://apps.nbpts.org/ace/begin.cfm>
- ELCI 6773. National Teaching Standards Capstone Experience** Capstone experience designed to help teachers develop descriptive, analytical, and reflective thinking and writing skills that demonstrate application of the National Board's five core propositions. ELCI 6773 is the last course students take in the MSE in Educational Theory and Practice. All other courses required for this program are prerequisites for ELCI 6773. This course is limited to students enrolled in the MSE in Educational Theory and Practice.
- ELCI 680V. Independent Study**
- ELCI 7063. Curriculum Management** Presents perspectives, skills, and processes necessary for administrators to manage district and building level curriculum and to formalize the curriculum decision-making process. Dual listed as ELCI 6063.
- ELCI 7083. Supervision and Evaluation of Teaching** This course combines attributes of supervising teaching with the formal aspects of teacher evaluation. Emphasis is upon adult development, clinical supervision, and evaluation process and models extant in public schools. Dual listed as ELCI 6083.
- ELCI 7523. Curriculum Theory and Practice** A study of current curriculum innovations and their underlying theoretical bases. Emphasis is given to current research on effective schools and to the translation of effective curriculum designs into practice. Prerequisite, completion of an appropriate master's degree in educational administration or curriculum and instruction.
- ELCI 7533. Theories of Instruction** A review of learning theories followed by an intensive study of various models of teaching available to the classroom teacher with emphasis upon mastery of selected models. Dual listed as ELCI 6533.
- ELCI 762V. Special Topics in Curriculum**
- ELCI 7723. Field Study** An intensive study of a selected and approved curriculum problem.
- ELCI 775V. Thesis**
- ELCI 780V. Independent Study**
- ELCI 8213. Doctoral Seminar: Curriculum and Instruction** This course is a reflective analysis of school curriculum, grades P-12. Presentations and discussion will focus on the four prevailing curriculum conceptions: Humanistic, societal, technological and academic. Prerequisite, Admission to doctoral program Educational Leadership.
- ELCI 8303. Curriculum Ideology and Instructional Design** This course provides participants with the advanced knowledge of curriculum theories and issues which influence curricular practices. Course participants gain in depth awareness of factors involved in designing, implementing and evaluating curricular programs.

Educational Foundations (ELFN)

- ELFN 6763. Philosophies of Education** Presuppositions of various philosophies with emphasis on the implications of these presuppositions on educational theory and practice.

- ELFN 6773. Introduction to Statistics and Research** An introductory course in methods and techniques of research, and the statistical treatment and interpretation of research data.
- ELFN 7583. Evaluation of Educational Programs and Systems** This course examines various techniques of program analysis and evaluation for individual schools and for the total school system.
- ELFN 7773. Advanced Educational Research** An advanced study of the methodology of research including quantitative and non-quantitative procedures.
- ELFN 7783. Advanced Educational Statistics** A study of inferential statistics utilizing parametric and nonparametric procedures. Prerequisite, ELFN 6773 or equivalent.
- ELFN 8753. Multivariate Analysis** A study of statistical analyses involving multiple dependent and independent variables. Prerequisites, ELFN 6773 Introduction of Research and Statistics or equivalent, ELFN 7773 Advanced Educational Research or equivalent, ELFN 7783 Advanced Educational Statistics or equivalent. This course is limited to those students in the Center for Excellence in Education PhD program.
- ELFN 8763. Doctoral Seminar: Socio Cultural Issues of Education** This course examines educational ideas, concepts, and issues as it describes the social, political and economic issues and trends related to schools in a pluralistic society. Prerequisite, admission to doctoral program.
- ELFN 8773. Doctoral Seminar: Educational Research and Evaluation** A study of research designs and statistical techniques to provide students with the opportunity to relate, integrate, and synthesize evaluation processes. Study will focus on theories and practices of curriculum and environmental and educative roles of instruction. Prerequisites, ELFN 7773, ELFN 7783, and admission to doctoral program.
- ELFN 8783. Qualitative Research and Evaluation** Study of the theoretical, conceptual and methodological aspects of research and evaluation methods derived from traditions of ethnographic and ethnomethodological inquiry. Prerequisites, ELFN 6773, ELFN 7773 and ELFN 7783, and admission to doctoral program.
- ELFN 8793. Doctoral Seminar: Proposal Development** The study and application of research methodologies and data analysis techniques appropriate to the development of a dissertation. The primary emphasis will be the completion of a dissertation proposal. Prerequisites, admission to doctoral program and satisfactory completion of the comprehensive examination in Educational Leadership Special Education.

Special Education (ELSE)

- ELSE 5003. SPED Academy 101: Foundations of Teaching Students with Exceptional Needs** An overview of special education that includes the historical foundation of special education, litigation and legislation, characteristics of students with exceptionalities, assessment procedures, the IEP process, and collaboration with families and professionals in the field of education. Prerequisite, admission to the MAT in Special Education program.
- ELSE 5043. Assessment and Instruction for Exceptional Learners** Experience in the administration and interpretation of assessment procedures for planning and implementing instructional interventions for students with exceptionalities.
- ELSE 5083. Collaboration for Special Education Service Delivery** A study of the team planning process, working with families, and service delivery options for special education, including special class placement, consultation, and collaborative teaching.
- ELSE 5633. Literacy Assessment, and Diagnosis of Exceptional Learners** Developing comprehensive understanding of diagnostic and corrective needs of individuals with reading disabilities in special education classrooms. Prerequisite, ELSE 5653.

- ELSE 5653. Literacy and Language Development for Exceptional Learners** Relationship of language acquisition and literacy development for exceptional learners, focusing on the identification, analysis, and correction of literacy development in print knowledge, oral reading fluency, vocabulary, and comprehension. Prerequisite, admission to the MSE in Special Education Instructional Specialist K-12 program or MAT in Special Education K-12 program.
- ELSE 5683. Methods for Working with Families** Development of effective interpersonal communicative skills; conducting parent-teacher conferences; and designing training programs for parents.
- ELSE 5703. Identification, Nature, and Needs of the Gifted, Talented, and Creative** A comprehensive study of gifted, talented and creative learners including characteristics, identification procedures, appropriate educational services, and social needs of this population in a variety of educational settings.
- ELSE 5713. Educational Procedures and Materials for the Gifted, Talented, and Creative** Focus is on current theory and practice in planning educational programs for gifted, talented, and creative students.
- ELSE 5723. Assessment for Programming for Gifted, Talented, and Creative** Review and administration of assessment instruments for the purpose of preliminary screening, identification, and differentiating programming for the gifted, talented, and creative.
- ELSE 5733. Gifted Children in the Regular Classroom** A study of effective strategies used by regular classroom teachers to serve learning needs of gifted. Specific topics related to giftedness will be studied including characteristics, identification, and differentiated instruction.
- ELSE 5743. Assessment of Young Children with Exceptionalities** A study of evaluative and diagnostic instruments and procedures used with young exceptional children from birth to five years of age.
- ELSE 5813. Current Issues in Gifted Education** An examination of research and theory related to giftedness and an analysis of data-driven decision-making for effective classroom practice for gifted students.
- ELSE 6013. Contemporary Issues and Research in Special Education** Role of convergent research evidence in addressing current issues in special education practice and policy, including group experimental, single subject, and qualitative research designs used to address current issues.
- ELSE 6023. Characteristics of Individuals with Disabilities** Advanced in-depth study designed to develop knowledge of the characteristics and issues related to individuals with disabilities.
- ELSE 6033. Affective Programming in the Classroom** An in-depth study of the social and emotional needs of children who have diverse learning needs.
- ELSE 6043. Strategies for Teaching Exceptional Learners in the Content Areas** Instructional approaches, strategies and materials for addressing the academic needs of students with exceptionalities, including the selection and use of various strategies to teach students with exceptionalities in the content areas of writing, mathematics, science, and social studies. Prerequisite, admission to the MSE in Special Education Instructional Specialist K-12 program.
- ELSE 6053. Advanced Methods of Teaching Students with Mild/Moderate Disabilities** General and specialized curriculum and methods for teaching students with mild/moderate needs in the K-12 setting, including curricula and intervention strategies for the development of cognitive, academic, social, language and functional life skills for independent, community, and employment living.
- ELSE 6073. Advanced Methods of Teaching Students with Significant Disabilities** Evidence-based research is presented with regard to all educational programs for students with severe, intellectual disabilities and autism, including strategies educators use in concert with team members to plan, teach, and monitor students' progress.

ELSE 6083. Culturally Responsive Teaching Addressing cultural, linguistic, and educational needs of learners with exceptionalities in schools through culturally responsive teaching, with emphasis placed on developing positive partnerships between schools, students, and their families and communities. Prerequisite, admission to the MSE in Special Education Instructional Specialist K-12 program or MAT in Special Education K-12 program.

ELSE 6103. Seminar - Studies of Research in Special Education An examination of the current issues and trends in special education as found in the professional literature as it relates to the individual student's area of interest. A research project suitable for a poster session presentation is required.

ELSE 6163. Positive Behavior Interventions and Support This provides a basis of understanding and addressing behavior challenges of diverse learners. In this course a range of issues, concepts and practices centering on Positive Behavior Interventions and Support (PBIS) in school, communities, and other social settings. Prerequisite, MSE candidates in Special Education.

ELSE 6183. Teaching Students with Autism Spectrum Disorders A comprehensive, research-based study and overview of Autism Spectrum Disorders (ASD).

ELSE 6193. Laboratory Experiences Special Education Laboratory Experience is the internship component of the MSE in Special Education K-12 program. Candidates will develop and implement field-based projects for the purpose of applying the knowledge and skill sets obtained in all courses leading up to the Laboratory Experience course. Implementation of projects will take place in a special education setting to provide an opportunity for candidates to work with students with exceptionalities. Emphasis is on practical application of theoretical methods. Prerequisites, Passage of Special Education Praxis II and permission of advisor.

ELSE 6196. Special Education MAT Internship The Special Education MAT Internship requires supervised and directed experience in teaching for students with disabilities in grades K-12. Prerequisites, Completion of required courses in the program prior to internship and passage of Special Education Praxis II must be completed.

ELSE 6423. Ethical and Legal Issues in Special Education A study of the legal aspects of special education with emphasis given to the following six principles of special education law: (1) zero project, (2) nondiscriminatory classification, (3) individualized and appropriate education, (4) least restrictive placement, (5) due process, and (6) parent participation.

ELSE 6433. Creativity An in-depth examination of creativity as a meaningful curriculum effort for the education of creative students. Emphasis is on the theoretical aspects of creative process, creative product, and practical application of theory to foster creativity in the classroom.

ELSE 6463. Program Evaluation for Special Education This course provides an introduction to program evaluations in special education. Various areas will be explored, including accountability, needs assessments, evaluation designs, and effects of evaluation.

ELSE 6673. Children with Emotional and Behavioral Disorders Concepts, practices, and trends in the education of children with emotional and behavioral disorders.

ELSE 6713. Nature and Needs of Students with Exceptionalities An in-depth study of young students with exceptionalities with a focus on their developmental needs.

ELSE 680V. Independent Study

ELSE 6833. Practicum for Gifted, Talented, Creative Learning experiences are provided which incorporate skills in classroom organization, management, planning, and teaching in a field setting for gifted, talented, creative. Permission required by program director.

ELSE 6843. Advanced Practicum for Gifted, Talented, Creative A focus on innovative teaching, research, program evaluation, and collaboration with stakeholders to meet the needs of gifted, talented, and creative students. Permission of program director required.

ELSE 689V. Thesis

Teaching Internship (TISP)

TISP 5826. Teaching Internship in the Secondary School (Speech Communication and Theatre) This course is a culmination of the entire secondary education curriculum for speech and theatre. The course involves application of all materials and methods previously learned in major coursework and professional education preparatory classes.

DEPARTMENT OF TEACHER EDUCATION

Early Childhood Education (ECH)

ECH 5033. Learning and Development in Children A study of relevant child development data, encompassing development from conception to the middle years of childhood. Practical application of learning theory is provided to the student through a variety of hands-on experiences and observation.

ECH 5061. Early Childhood Education Symposium A symposium with an identified theme relating to current events or needs in the field of early childhood education. Designed for early childhood professionals (May be repeated).

ECH 6113. Applied Child Development Focusing on birth to kindergarten age, understanding and applying knowledge of development of all young children to effectively assess and support development across a variety of contexts; including considerations of diverse characteristics of children, families, and communities.

ECH 6123. Creating Developmentally Appropriate Environments Creating and maintaining developmentally appropriate environments for settings serving all children birth through kindergarten. Environment includes aspects for supporting development, the physical environment, health and safety, and relationships.

ECH 6133. Curriculum and Play for Young Children, Birth-K Creating developmentally appropriate play-based, meaningful and individually challenging curriculum that promotes comprehensive developmental learning outcomes in all domains inclusive of culture, ability, ethnicity and linguistic backgrounds. Focuses on ages Birth – K.

ECH 6423. Documenting Young Children's Learning and Development Creating, selecting and appropriately using a variety of documentation tools in multiple early childhood settings, including observational methods and standardized assessments; and partnering with families and other professionals with reference to assessment issues.

ECH 6503. Early Childhood Curriculum and Environments Introduction to current best practices in developing and implementing effective learning environments and curriculum in early childhood classrooms. Restricted to Master of Arts in Teaching candidates only. Prerequisites, TE 6223 Effective Teaching with Diverse Populations; ECH 6513 Developmental Perspectives; ECH 6423 Documenting Young Children's Learning and Development; Must be accepted to the Teacher Education program.

ECH 6513. Developmental Perspectives In depth study of child development and developmental differences and influences with an emphasis on applying knowledge to creating learning environments for young children. Additional emphasis on creating collaborative relationships with families and communities to support children's development.

ECH 6533. Sources and Models of Early Childhood Curriculum Study and analysis of curriculum sources and models for the purpose of critiquing and creating appropriate curriculums.

ECH 6543. Administration and Supervision of Programs for Young Children A study of the important responsibilities of administrators of child care and preschool program. Emphasis will be placed upon program design, policy formation, fiscal management, staff training, and decision-making.

- ECH 6583. Practicum in Early Childhood Education I** Application of theory and developmentally appropriate practices in an early childhood education setting. Includes development, implementation of a personal research project within the early childhood setting. Prerequisites, ECH 6513, ECH 6243, and ECH 6533.
- ECH 6593. Practicum in Early Childhood Education II** Practicum in Early Childhood Education II Practicum experience is developed to meet the student's professional interests and goals within a community-based early childhood education setting. Development and implementation of an action research project required as program capstone. Prerequisite, ECH 6773.
- ECH 660V. Thesis**
- ECH 6713. Technology and Early Childhood** Addresses the emerging research on use of technology with young children in various educational and care settings serving young children and their families. Focus on developmentally appropriate integration of technology in instruction and classroom settings for all young children.
- ECH 6773. Research in Early Childhood Education** In-depth examination of current research that documents effective and best practices in early childhood settings. Prerequisite, ELFN 6773.
- ECH 6783. Leadership in Early Childhood Education** Building upon professional development such as leadership, advocacy and collaboration, this course connects students to the broader contexts of early childhood education and responsibilities to children families, and the profession.
- ECH 680V. Independent Study**

Elementary Education (ELED)

- ELED 5053. Teacher-Made Materials for Use in Learning and Interest Centers** Applies philosophical and theoretical course content by demonstrating appropriate teaching devices and requiring students to develop materials essential to the functioning of the activity approach to curriculum.
- ELED 5613. Techniques of Behavior** Management The techniques of systematic behavioral intervention, including all areas of exceptionality in regular classes, special classes, itinerant and resource programs. Students must complete a fifteen (15) clock hour case study/behavior management project. Dual-listed as ELED 4613.
- ELED 5803. Special Topics** Current subjects of interest to graduate Elementary Education, Early Childhood Education or other educational professionals with appropriate sub-titles. Course may include intensive study of such subjects to meet the need of professional educators. All Special Topics Courses must be approved by the Elementary Education Department Curriculum Committee. One (three-hour) Special Topics may be applied as elective credit toward a degree program with the written permission of the academic adviser or department chair prior to enrollment in the course.
- ELED 6013. Home-School Relationships** A study of various techniques of communicating with the home and community. All facets of parent involvement, including parent education, will be explored.
- ELED 6023. Curriculum Construction—Elementary** This course stresses principles and criteria for the selection and organization of instructional materials and activities for the elementary school. Prerequisites, TE 6223, TE 6243, or instructor permission.
- ELED 6043. Social Studies in the Elementary School** Relates human and natural resources to the child as a social being in an interdependent world and includes four or five selected field trips.
- ELED 6053. Principles and Practices for Language Arts Instruction** A methods course which provides for the development of knowledge, skills, and attitudes necessary for teaching the language arts: listening, speaking, reading, and writing.

- ELED 6063. Educational Media** This course is designed to provide teachers, administrators, supervisors, and librarians with the skills and knowledge required to effectively use instructional media in the classroom and for professional presentations, and to provide them with an understanding of the requirements for an effective multimedia center.
- ELED 6073. Teaching Natural Science in the Elementary School** A graduate level methods course which provides an opportunity for the development of effective elementary science instructional procedures and explores current problems relating to elementary science teaching.
- ELED 6083. Mathematics in the K-6 Curriculum** The course will acquaint K-6 teachers with the curriculum and evaluation standards in mathematics and with ways to implement these standards for elementary classrooms.
- ELED 6103. Elementary Literacy** Focus on effective literacy instruction within and across content areas including a comprehensive knowledge base of the reading and writing process and effective instructional methods for teaching both nonfiction and fiction reading and writing in the elementary classroom.
- ELED 6113. Learning and Developing in the Elementary Years** Overview of cognitive, social-emotional, and physical developmental domains, including the interdependency of domains, for elementary age children; includes socio-cultural influences impacts on learning and development.
- ELED 660V. Thesis**
- ELED 680V. Independent Study**

Middle Level Education (MLED)

- MLED 6403. World of the Young Adolescent** A focus on the developmental characteristics of the young adolescent ages (10-14) set against a matrix of racial, ethnic, gender, socioeconomic, family, and community issues in order to create developmentally responsive practices and programs for all mid-level learners.
- MLED 6413. Standards Based Instruction** Addresses integrated instructional practices; discipline based methodology, using exploratory and mini-courses for mid-level students while maintaining alignment with state and national standards.
- MLED 6423. Teaming, Teaching and Learning in the Mid-Level Education** A study of school and classroom organizational practices that include: grouping for instruction, scheduling instruction, curricular organization, and classroom management. The leadership and professional role of the teacher will be explored. Prerequisites, TE 6223 or instructor permission.
- MLED 6443. Advanced Methods for Teaching in the Middle Grades** Teaching strategies for the middle grades focusing on the skills necessary to analyze teaching and learning and engage in reflective practices through the use of instructional improvement tools. Prerequisites, admission to MAT program, TE 6043, TE 6223, and MLED 6403.

Reading (RDNG)

- RDNG 5313. Methods and Materials in Reading** A course which focuses on techniques and materials for teaching students with different learning styles. Emphasis is on the basal reader, whole language, linguistic, language experience, and individualized approaches.
- RDNG 5343. Reading in the Content Areas: Middle and Secondary Schools** A course for classroom teachers, reading specialists, and other educators. Emphasis is on the relationship between learning strategies and reading content materials in the subject areas normally taught in grades four through twelve.
- RDNG 5803. Special Topics** Study of current topics related to literacy / reading.

- RDNG 6003. Literature and Book Selection** Approaches in building an effective literature program in educational settings.
- RDNG 6013. Theories, Issues, and Methods of Reading** Synthesis of theories and models of reading, past and current reading issues, examination of current research that discusses instruction of reading areas, spelling and writing; overview of reading and instruction for diverse and struggling learners. Prerequisite, enrollment in the graduate program within the College of Education and Behavioral Science.
- RDNG 6103. The National Writing Project Model: Processes of Writing** Authentic experiences in personal and professional process writing in the National Writing Project workshop setting and analysis of reform positions on writing instruction. Admittance to Graduate Programs required.
- RDNG 6203. National Writing Project Perspectives: Genre and Discourse on Writing** Professional examinations of discourse on writing and genre theory guided by National Writing Project perspectives and current reform positions of varied stakeholders. Prerequisite, Application, interview and acceptance into Arkansas Delta Writing Project; Bachelor's Degree required.
- RDNG 6243. Reading in the Digital Age** A focus on infusing reading components with various forms of information and communication technologies directed towards improving K-12 student's reading skills, motivation to read, and use of technology. Prerequisite, Admission to MSE Reading program or instructor permission.
- RDNG 6313. Theory and Practice in Teaching Reading** A study of reading and the reading process. The symbolic nature of reading is emphasized. Comparisons are made with the traditional presentations of reading and implications for instructional decision-making are suggested.
- RDNG 6333. Reading Practicum I—Diagnosis and Intervention** Clinical experiences in assessment and intervention in reading, and related areas.
- RDNG 6353. Reading Practicum II—Leadership in Literacy** Clinical experiences in the correction of reading difficulties with emphasis on utilizing assessment data for professional development as a reading specialist in organizing and supervising school wide reading reform.
- RDNG 6373. Qualitative Methods in Reading Research** A research course about qualitative research methods and practices, in which students explore the methods, techniques and reasons for conducting research to support best practices.
- RDNG 6383. Reading Issues within a Multicultural and Pluralistic Society** A comprehensive survey of multicultural and pluralistic societal issues and their impact on reading as well as on school, teachers, and instructional groupings.
- RDNG 645V. Thesis**
- RDNG 6493. Advanced Reading Methods and Intervention** Examines latest trends in research based reading instructional methodology and development, implementation, and monitoring of intervention for struggling readers. Prerequisite, RDNG 6313 (or equivalent); and enrollment in a Graduate Program within the College of Education and Behavioral Science.
- RDNG 6513. Emergent Literacy Birth - Primary Grades** Focuses on the development of literacy skills, birth through primary grades, including the process of exposure to words, print, and the opportunity to write as a part of the literacy process. This course maintains alignment with state and national standards.
- RDNG 6533. Literacy for Diverse Learners** Examines literacy issues in the context of multicultural education and culturally responsive pedagogy with a focus on the differentiation of literacy needs among various student cultures and special needs students.
- RDNG 6553. Adolescent Literacy** Analyzes current federal initiatives and reform policies related to adolescent literacy. Examines the social and cognitive processes related to adolescent literacy. Study of methods to facilitate literacy learning for adolescents in all curricular areas. Restricted to MSE Reading major or instructor permission.
- RDNG 6563. Principles of Literacy Cognition** An examination of current research on literacy cognition, reading disorders, and research - based methodologies for reading instruction, with implications for instruction.

- RDNG 680V. Independent Study**
- RDNG 7273. Multicultural Influences in Reading and Literature** Survey of contemporary literary theory and criticism including an examination of the role of multiple perspectives and diverse voices in literature as a transformative agent in schools and society. Restricted to graduate students in education programs or instructor permission.
- RDNG 7283. Writing Pedagogy: Advanced Processes of Writing** An examination of varied perspectives of the processes of writing, with a focus on recursive practices in authentic, academic, and personal settings; reflection on personal and academic writing practices and research of writing pedagogy facilitating the study of effective application. This course is restricted to Ed.S. degree Reading candidates or other graduate students with instructor permission.
- RDNG 7393. Literacy Leaders as Community Advocates** Examination of the role of literacy leaders within the school, community, and family context with a focus on literacy advocacy project development, implementation, and evaluation. Restricted to MSE-Reading or Ed.S.-Reading candidates or approval of the instructor.
- RDNG 7423. Studies in Critical Literacy** Explores literacy as a critical social practice that may be used to enact social change within the classroom and beyond. Applications include the social context of literacy, multiple literacies, and the role of literacy in the production of power. Restricted to EdS in Reading majors.
- RDNG 745V. Thesis** Thesis is specific as the capstone for the Specialist in Education Reading (Ed.S. Reading) Program and enrollment is restricted to those students.
- RDNG 7473. Theories of Language Acquisition** Overview of theoretical and practical orientations regarding language acquisition with a focus on English Language Learners including an examination of language acquisition models and their application in schools and classrooms. Limited to MSE-Reading and Ed.S.-Reading students or instructor permission.
- RDNG 7493. Reading and Writing Capstone** Serves as both the review and comprehensive examination of program content with a focus on developing descriptive, analytical, and reflective writings that demonstrate effective applications of practices for literacy instruction. Must be taken in final semester of coursework. Restricted to EdS in Reading majors.
- RDNG 7543. New Literacies** An overview of theoretical and pedagogical frameworks of the New Literacies with an emphasis on the intersection of student lives, culture, and technology. Restricted to Ed.S.-Reading Candidates or graduate students with instructor permission.
- RDNG 7573. Action Research in Literacy Education** Examination of theory and practice in action research as applied to literacy education with practical application in literacy settings. Prerequisite, Admission to MSE-Reading program or instructor permission; ELFN 6773.
- RDNG 7613. Survey of Quantitative and Qualitative Literacy Research** An overview of research design, framework, and methodological approaches that spans qualitative and quantitative paradigms, including a mixed methods approach, within the context of literacy. Restricted to Ed.S Candidates or graduate students with instructor permission Prerequisite, ELFN 6773, Statistics and Research (or equivalent).
- RDNG 7643. Social Foundations of Literacy** An overview of the social foundations of literacy within the context of sociocultural and sociopolitical theory. Limited to MSE-Reading and Ed.S.-Reading students or instructor permission.
- RDNG 7653. Advanced Studies in Reading Comprehension** An in-depth examination of the dimensions of understanding in literacy learning, the complexities of comprehension strategy instruction as they pertain to the learning of essential concepts, and how they impact literacy learning environments and professional development for teachers. Restricted to Ed.S Reading Candidates or graduate students with instructor permission.

Teacher Education (TE)

- TE 6043. Effective Assessment** Design and analysis of varied formative and summative assessment systems in classroom practice to inform instruction. Prerequisite, admission to MAT program. Prerequisites, TE 6223 or instructor permission.
- TE 6223. Effective Teaching with Diverse Populations** Theory and practice for effective teaching of diverse students, application through the creation of unit and lesson plans.
- TE 6233. Teaching and Assessment** Designed to provide teachers with a broad survey of teaching methodology and student assessments. Instructional decision making will be explored in the context of standards, principles of learning, teaching methodology, student assessment and student development.
- TE 6243. Technology as a Tool for Teaching** This course will include evaluation of educational software and websites. Students will research instructional design principles and procedures and will utilize their learning to create technology integrated educational materials for their respective areas.
- TE 6253. Perspectives on Professionalism in Education** This course helps develop perspectives that are essential for educators to understand and fulfill ethical and professional responsibilities in their respective areas, including communication with various audiences, reflection, self assessment and advocacy within the context of cultural diversity and democratic pluralism.
- TE 6263. Teachers as Professionals; Working Toward National Board of Professional Teaching Standards** Emphasis on the National Board of Teaching Standards (NBPTS) to improve student learning in classrooms. NBPTS provides the framework for the course. Prerequisite, ELFN 6773 Statistics and Research.
- TE 6283. Practicum in Teacher Education** Practicum serves as a capstone experience in which the student collaborates with faculty to apply knowledge and skills gained in the program. A written proposal must be approved the semester prior to the Practicum and follow published department timelines.
- TE 6293. Theories and Strategies of Classroom Management** Development of skills needed to make application of classroom management principles to actual classroom practice prior to participating in an internship in the public schools. Prerequisites, MLED 6403 OR ELED 6113.
- TE 6299. MAT Internship in Teacher Education** Supervised internship focused on educational practice and performance for individuals seeking alternative licensure to teach in grades PK-12. Prerequisite, Restricted to Master of Arts (MAT) in Teacher Education. Students must complete all other MAT coursework and pass Praxis I and Praxis II examinations prior to enrollment.

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND SPORT SCIENCES

Exercise Science - Physical Education (ESPE)

- ESPE 580V. Special Topics Workshop** A specifically designed series of learning experiences to enhance the professional capabilities of teachers Opportunity for participants to engage in meaningful learning activities and to interact with recognized professionals in the field This course may not be used to satisfy any degree requirements Course can be repeated for credit.
- ESPE 6103. Ethical Issues in Sport** This course examines contemporary views of moral and ethical issues within various sport environments. Course includes discussion of major social criticisms and constructs of sport, analysis of relevant ethical theories in sport, application of critical self-evaluation, and synthesizing ethical reasoning knowledge and skills.

- ESPE 6113. Sport Law** In-depth understanding on a variety of legal issues pertaining to the amateur and professional sport environment. Tort law, negligence, contract, antitrust, labor, premise operator, exculpatory, and licensing law will be analyzed in the context of sports-related cases.
- ESPE 6123. Sport Marketing** Provides students with advanced knowledge, skills and understanding necessary to propose, develop and conduct strategic marketing plans for sport organizations. Also covers essential elements of sport promotions and sport consumer behavior within professional and amateur sports.
- ESPE 6133. Sport Finance & Budgeting** Topics as they relate to fiscal and budgetary control of professional and amateur sport organizations. Included are: public sport facility financing, ownership, financial analysis, feasibility and economic impact studies. Analyzes financial challenges and strategies of professional and intercollegiate.
- ESPE 6143. Sport Communications** Provides students with advanced knowledge, skills and understanding relating to all aspects of the sport media and communication industry and how each is integral to the management, marketing, and operational goals of sport organizations at all levels. Use of technology in sport communications also covered.
- ESPE 6153. Sport Leadership** Provides students with advanced knowledge, skills and understanding relating to leadership principles and aspects in sport organizations. Course content includes organizational goals, strategy, environments, culture, power, conflict, leadership, and change affecting sport managers and organizations.
- ESPE 6163. Sport Governance and Operations** Provides students with knowledge and understanding of the governance policies and procedures in professional and collegiate sports. Also covers essential elements of facility and game operations within intercollegiate, professional sports, and major sports events.
- ESPE 6543. Cellular Physiology in Exercise** An examination of human physiology at the cellular and subcellular levels in response to acute and chronic physical activity.
- ESPE 6513. Cardiorespiratory Physiology** The study and practical applications of cardiovascular and respiratory physiology and research related to exercise and sports programs.
- ESPE 6523. Physical Activity for Special Populations** The purpose of the course is to facilitate understanding of specific disease states as they relate to health and fitness and to provide information and practical experience for developing an exercise prescription at the appropriate level for the older adult, the physically disabled, and those with chronic diseases.
- ESPE 6533. Laboratory Techniques in Exercise Physiology.** This course provides and in-depth understanding of the laboratory techniques used in exercise physiology to measure physiological fitness and to assess physiological changes that occur due to exercise. Prerequisites, ESPE 6653, Neuromuscular Physiology and ESPE 6513 Cardiorespiratory Physiology. Summer I
- ESPE 6593. Sport and Exercise Psychology** The study and practical applications of relevant psychological theories and research related to physical education, exercise and sport programs.
- ESPE 6603. Sport in Society** An introduction to sport sociology with special emphasis on issues that relate directly to the practicing physical educator and/or coach.
- ESPE 6623. Measurement and Statistics** Application of measurements and evaluation to the programs of exercise science and physical education. Emphasis is placed on development, selection, and application of tests.
- ESPE 6633. Curriculum Construction in Physical Education** A critical study of principles, problems, and procedures in the construction of a physical education program. Attention will be given to the application of the principles and procedures to the construction of a course of study for a specific situation.
- ESPE 6643. Current Readings Seminar in Physical Education and Sport Science** Study and critical analysis of recent trends and significant contemporary issues in Exercise Science, Physical Education and Sport.

- ESPE 6653. Neuromuscular Physiology** A study of how the systems of the body function during activity; the physiological adaptations during work; and the lasting changes which result from different levels of performance. Practical experience with selected experimental procedures. Prerequisite, ES 3543.
- ESPE 6663. Advanced Strength Training and Conditioning** An in depth study of the scientific principles and techniques related to the strength and conditioning of exercise and athletic populations. The course is designed to provide the necessary background for certification as a strength and conditioning specialist.
- ESPE 6673. Research Design** A study of basic research techniques and design utilized in physical education and allied fields.
- ESPE 6683. Biomechanical Analysis of Sports Skills** An advanced study of biomechanical concepts and their application to human movement and sport skills. Prerequisites, ES 3543 and ES 4763.
- ESPE 6693. Motor Learning** The study and analysis of the developmental and acquired components of human behavior related to motor learning and performance.
- ESPE 678V. Thesis**
- ESPE 679V. Graduate Project**
- ESPE 680V. Independent Study**
- ESPE 681V. Internship**

DEPARTMENT OF PSYCHOLOGY AND COUNSELING

NOTE: Courses with the prefix **COUN** and **PSY** are not open to enrollment by any student not admitted and in good academic standing in a counseling, certificate, or psychology graduate program within the Department of Psychology and Counseling. Exceptions may be made by the Coordinator of the School Psychology track of the Ed.S. Degree Program, or by a majority vote of the Counselor Education admissions committee.

Counseling (COUN)

- COUN 580V. Special Topics Workshop** A study of selected professional topics. This course may not be used to satisfy any degree requirements. Course can be repeated for credit.
- COUN 6003. Counseling Students who are Gifted and Talented in the School Setting** The social, emotional, behavioral, and cognitive characteristics of students who are gifted in the educational setting, including the unique learning and counseling needs of this population within the ASCA National Model framework.
- COUN 6013. Introduction to School Counseling** A study of professional roles and functions, goals and objectives, organizations and associations, history and trends, ethical and legal standards, professional preparation standards and credentialing of the school counselor.
- COUN 6023. Introduction to Mental Health Counseling** An overview of historical, contemporary, clinical, and training issues in the practice of clinical mental health counseling. The course provides information related to the following aspects of clinical mental health counseling practice: (a) professional roles and responsibilities; (b) professional organizations; (c) state and national credentialing; and (d) counselor advocacy and self-care. The student must be admitted into an appropriate graduate counseling program.
- COUN 6033. Social and Cultural Foundations of Counseling** A study of societal changes and trends, human roles, societal subgroups, social mores and interaction patterns, and differing lifestyles as they relate to the application of professional counseling assessments and techniques.

- COUN 6043. Career Development and Services** A study of career development theories, and lifestyle and career decision making models. The application of the theories and models across the life span and populations utilizing occupational information, assessment instruments and computer/Internet resources as career counseling tools will be addressed.
- COUN 6053. Ethical, Legal, and Professional Issues in Counseling** An in-depth study of the issues that contribute to the development of a professional identity that leads to an understanding of all aspects of professional functioning, including history, roles, organizational structures, ethics, standards of practice, legal statutes, and credentialing.
- COUN 6073. Program Development, Implementation, and Evaluation in School Counseling** A study of practices involved in planning, organizing, and coordinating a comprehensive developmental school counseling program, including principles and applications of needs assessment and program evaluation. Prerequisite, COUN 6013.
- COUN 6103. Introduction to Play Therapy** A comprehensive overview of counseling children through play. A review of methods, implications for play therapy, and multicultural issues will be addressed. Students will learn basic interpersonal skills with children. Prerequisite, Must be a student admitted to an appropriate graduate program in psychology or counseling, or instructor permission.
- COUN 6113. Theories and Techniques in Counseling** An examination of contemporary and alternative counseling theories that provide the student with models to conceptualize client presentation and that help the student select appropriate counseling interventions. Models of counseling are consistent with current professional research and practice so to allow students to develop a personal model of counseling. Prerequisite, The student must be admitted into an appropriate graduate psychology or counseling program. Instructor permission required. Cross-listed with PSY 6113.
- COUN 6123. Group Counseling** A study of the principles of group dynamics; group leadership styles; applications of helping relationship theories in group settings; group counseling methods and skills; and other group approaches. Prerequisite, PSY 6113.
- COUN 6124. Group Practicum** Practicum experience to develop, maintain, and utilize a helping relationship to benefit a client population through group work; personalized, advanced practical experience working with group members. Prerequisites, COUN 6123, PSY 7533 and admission into the Clinical Mental Health Counseling program.
- COUN 6133. Sexuality Issues in Counseling** Through reviewing literature, course assignments, and multi-media presentations, students will become more aware of how to more ethically and effectively work with clients who present in counseling with issues related to sex and sexuality. Prerequisites, PSY 6113, and admission to psychology or counseling program or instructor permission.
- COUN 6143. Expressive Arts in Counseling** A comprehensive overview of using creative expression in counseling with children, adolescents, adults, and families. Historical, theoretical, and therapeutic techniques are addressed including the use of developmentally appropriate art activities. Prerequisites, admission to appropriate graduate counseling or psychology program, "B" or better in COUN 6203, and COUN 6213. Fall.
- COUN 6153. Advanced Play Therapy** An overview of theoretical foundations, application of treatment, supervision in play therapy, legal and ethical issues, and evidenced-based research. Prerequisites, admission to appropriate graduate counseling or psychology program, "B" or better in COUN 6103, COUN 6203, and COUN 6213. Spring.
- COUN 6163. Child-Parent Relationship Therapy** A focus on training parents to be therapeutic agents through the utilization of child-centered play therapy. Prerequisites, admission to appropriate graduate counseling or psychology program, "B" or better in COUN 6103, COUN 6203, and COUN 6213. Spring.
- COUN 6203. Counseling Prepracticum** A competency-based course in counseling techniques with experimental emphasis including micro-counseling and role-playing. The student must receive a "B" or better in order to proceed to COUN 6213. Prerequisites, COUN 6113 must be taken prior to, or concurrent with COUN 6203. The student must be admitted into an appropriate graduate counseling program.

- COUN 6213. Counseling Practicum** Supervised practice in group and individual counseling and consultation with children, adolescents, and adults. Prerequisites, COUN 6203 and COUN 6113. COUN 6123 must be taken prior to, or concurrent with COUN 6213. Student must earn a grade of "B" or better to advance to COUN 6223/6233/7473.
- COUN 6223. Counseling Internship Elementary School** Supervised practice including individual counseling, group work, developmental classroom guidance, consultation, and program coordination activities in an elementary school setting. Prerequisites, COUN 6073, COUN 6213, and permission of screening committee. Student must earn a grade of "B" or better to advance to COUN 6233.
- COUN 6233. Counseling Internship Secondary School** Supervised practice including individual counseling, group work, developmental classroom guidance, consultation, and program coordination activities in a secondary school setting. Prerequisites, COUN 6073, COUN 6213, and permission of screening committee. Student must earn a grade of "B" or better to advance to COUN 6223.
- COUN 6243. Case Management in Rehabilitation Counseling** A study of a rapidly growing and dynamic profession within the healthcare and disability management system. Students will apply a proactive, integrated, and coordinated process of assessment, planning, coordinating, and implementing rehabilitation counseling services for persons with acquired and congenital disabilities.
- COUN 6313. Alcohol and Drug Abuse** A course intended to familiarize students with the psychological, social, and economic aspects of substance abuse.
- COUN 6353. College and the Student** Study of the contemporary American college student including subcultures, values and beliefs, lifestyles, academic and personal problems, and environmental influences, methods of assessment, and implications for student affairs policy and programming are discussed.
- COUN 6393. Internship in College Student Personnel Services** Supervised practice (a minimum of 600 clock hours) in one or more student affairs settings. Must include at least 240 clock hours of direct service to clients, at least one hour per week of individual supervision with the site supervisor, and at least one and one-half hours per week of group supervision with a program faculty member. [Prerequisite, Completion of all coursework prior to or concurrent with the internship hours and approval of the degree program committee] Offered Spring Semester.
- COUN 6413. Practicum in Play Therapy** Supervised experience in play therapy with application of theory, skills, assessment, and strategies acquired in previous play therapy course work. Prerequisites, admission into Graduate Certificate in Play Therapy program. Students must have received a "B" or higher in COUN 6203, COUN 6213, and COUN 6103.
- COUN 6423. Psychosocial Aspects of Aging** Explores the complex interaction of physical, social, psychological, sociocultural, and attitudinal factors that contribute to both society's and the individual's perceptions of the aged population.
- COUN 6432. Crisis Counseling** In-depth study of crisis theory, intervention models, and practical skills for effective intervention. Attention to crises related to suicide, violence, victimization, psychiatric illness, chemical dependency, and individual or family-level trauma. Emphasis on crisis assessment, management, and short-term interventions. Prerequisites, PSY 6113 and instructor permission.
- COUN 6453. Telehealth for Mental Health Practice** In-depth study of principles, theories, interventions, practical skills, and elements necessary for the implementation of Telehealth in professional counseling practice including attention to legal and ethical issues, cultural competence, technology, and standards of telehealth practice. Prerequisite, COUN 6113.
- COUN 6473. Child and Adolescent Counseling** Theory and techniques for treating emotional and psychological disorders in children and adolescents with a focus on various counseling approaches to treatment and treatment evaluation. Prerequisite, COUN 6113, PSY 6543.

- COUN 6493. Internship in College Student Counseling** Supervised practice (a minimum of 600 clock hours) in one or more student affairs settings. Must include at least 240 clock hours of direct service to clients, at least one hour per week of individual supervision with the site supervisor, and at least one and one-half hours per week of group supervision with a program faculty member. Prerequisite, Completion of all coursework prior to or concurrent with the internship hours and approval of the degree program committee.
- COUN 6603. Foundational Knowledge of Professional School Counseling and Professional Practice** History and scope of the school counseling profession, including the development trajectories of diverse learners and the appropriate scope of school counseling practice in varied educational settings.
- COUN 6623. Data-Informed Professional School Counseling** Obtainment, analysis, and utilization of school data and school counseling program assessments to evaluate areas of strength and needed improvement for program activities and interventions. Prerequisite, COUN 6603.
- COUN 6663. Techniques and Instructional School Counseling Interventions** Foundational individual and group counseling skills for student success, including assessment of individual students' academic, college/career, and social/emotional needs and identification of evidence-based direct and indirect school counseling activities in support of student success.
- COUN 650V. Thesis**
- COUN 6703. Counseling English Language Learners in the School Setting** This course is designed to provide students with practical knowledge in addressing the academic, social/emotional and career development needs of English Language Learners in the educational setting. In this course, students will learn how to support English Language Learners within a comprehensive school counseling program, with an emphasis on counseling, consultation and collaboration with key stakeholders.
- COUN 680V. Independent Study** Advanced study of a specific topic or content in counseling not addressed in the curriculum. Student must submit a written proposal in advance that outlines the topic or content and expected products for evaluation. This proposal also requires written approval of the professor and the department chair. This course is not intended to replace any course in the curriculum.
- COUN 6803. Multicultural Issues in Crisis and Trauma** Study of societal changes, societal subgroups, social norms and interaction patterns with an emphasis on cultural competence and humility in preventing and intervening during a time of crisis.
- COUN 6813. Counseling Students with Disabilities in the School Setting** Policies, legal and ethical considerations, advocacy, assessment and evaluation related to students with disabilities, including how to support the needs of students with disabilities within a comprehensive school counseling program.
- COUN 6843. Theories of Professional School Counseling** Foundational individual and group counseling and education theories used in school counseling for successful student outcomes.
- COUN 6873. Program Development in Professional School Counseling** Development, implementation, and evaluation of data-informed comprehensive school counseling programs, with an emphasis on the school counselor's role in counseling, collaboration, consultation, and coordination of student services within academic, social/emotional, and career development domains. Prerequisite, COUN 6603.
- COUN 6883. Introduction to Crisis and Trauma in Children and Adolescents** Impact of crises and trauma-causing events on cognitive and emotive development in children and adolescents, including social and emotional learning, self-regulation, and relationship building.
- COUN 6893. School-Based Crisis Planning and Intervention** Fundamental planning and intervention for small and large-scale crises, including the development of a crisis intervention plan.
- COUN 7103. Advanced Counseling Theories** A study of counseling theories, with emphasis on the student developing a personal counseling approach. Prerequisite, permission of professor.

- COUN 7443. Counselor Supervision** A study of the models of counseling supervision; stages of counselor development; supervision methods and techniques; supervisory relationship; ethical, legal, and professional regulatory issues; evaluation; and supervised practice with master-level practicum students. Prerequisite, Instructor permission.
- COUN 745V. Special Problems in Counseling** Advanced study of a specific problem in counseling. Student must submit a written proposal in advance that outlines the study and expected products for evaluation. This proposal also requires written approval of the professor and the department chair. This course is not intended to replace any course in the curriculum.
- COUN 7463. Couples and Family Counseling** The study of couple and family systems theory, assessment, and intervention. Content will promote the understanding of couple and family dynamics and introduce basic family counseling interventions including several foundational family counseling theories. Prerequisite, COUN 6113 and instructor permission.
- COUN 7473. Supervised Internship I** Supervised internship experience in clinical mental health counseling, consisting of 300 clock hours of counseling-related experience, 120 of which must involve direct client contact. The student must be supervised a weekly basis by a university-approved site supervisor and must also attend weekly group supervision with a qualified university supervisor. Prerequisites, COUN 6213 with a grade of B or higher; and instructor permission required.
- COUN 7493. Supervised Internship II** Advanced supervised internship in clinical mental health counseling, consisting of 300 clock hours of counseling-related experience, 120 of which must involve direct client contact. The student must be supervised on an individual and weekly basis by a university-approved site supervisor and must also attend weekly group supervision with a qualified university supervisor. Prerequisites, COUN 7473 with a grade of B or higher; and instructor permission required.
- COUN 750V. Thesis**
- COUN 780V. Independent Study** Advanced study of a specific topic or content in counseling not addressed in the curriculum. Student must submit a written proposal in advance that outlines the topic or content and expected products for evaluation. This proposal also requires written approval of the professor and the department chair. This course is not intended to replace any course in the curriculum.

Psychology (PSY)

- PSY 5303. Research Methodology** An overview of research methodology including advanced concepts related to quantitative and qualitative psychological research designs. Emphasis placed on synthesizing contemporary empirical findings to develop an individual research agenda. Prerequisite, undergraduate statistics course or instructor permission.
- PSY 5313. Applied Analysis of Psychological Research I** An advanced course in statistical analysis of psychological data, and application to psychological research. This initial course involves descriptive and inferential statistics, including hypothesis testing; probability; t-tests; between-subjects, within-subjects, or mixed model ANOVAs; posthoc tests; power and effect size. Prerequisite, undergraduate statistics course or instructor permission.
- PSY 5623. Program Development, Implementation, and Analysis** Planning, development, implementation, and evaluation of programs in behavioral and educational settings (broadly defined). Emphases will include evidence-based approaches, population differences, and cultural competence. Prerequisite, PSY 5313 or equivalent or instructor permission.
- PSY 6000. Special Topics in School Psychology** Advanced study in professional school psychology with an emphasis on professional demeanor, legal and ethical behaviors, research, supervision and important topics in school psychology.
- PSY 6113. Theories and Techniques in Counseling** An examination of contemporary and alternative counseling theories that provide the student with models to conceptualize client presentation and that help the student select appropriate counseling interventions. Models of counseling are consistent with current professional research and practice so to allow students

to develop a personal model of counseling. Prerequisite, The student must be admitted into an appropriate graduate psychology or counseling program. Instructor permission required. Cross-listed with COUN 6113.

- PSY 6213. Statistics and Research Design in Psychology and Counseling** The nature, computation, and interpretation of statistics in the context of psychology and counseling research and literature Includes descriptive statistics, with a primary emphasis on the integration of inferential statistics and research design. Prerequisite, Undergraduate statistics class or equivalent, or instructor permission.
- PSY 6313. Applied Analysis of Psychological Research II** Rationale and assumptions of linear regression, including simultaneous and hierarchical procedures, coding of categorical variables in experimental designs, moderation and mediation, suppression, and logistic and curvilinear analyses, and the relationship of regression to ANOVA, factor analysis, and multivariate analysis. Prerequisite, PSY 5313 or instructor permission.
- PSY 6423. Professional Writing and Thesis Development** Overview of content, stylistic, and ethical issues related to writing in the psychological sciences. Must be completed during second semester in the Psychological Science program. Prerequisite, Acceptance to the Master of Science in Psychological Science program or instructor permission.
- PSY 650V. Independent Study in Psychology** Advanced study of a specific problem in psychology. Student must submit a written proposal in advance that outlines the topic and expected product for evaluation. May be repeated for credit. Prerequisites, approval of instructor, program coordinator, and department chair.
- PSY 6513. Advanced Educational Psychology** A study of learning processes with emphasis on applications to structured situations.
- PSY 6523. Behavior Assessment and Intervention** An examination and application of methods and techniques in behavior assessment and intervention with children and adults in applied settings.
- PSY 6543. Psycho-Social Aspects of Development** A study of psychological theories of development across the life span, including the influence of environmental factors upon personality, normal and abnormal behavior, and adjustment. Students are required to apply developmental concepts to the counseling profession.
- PSY 6573. Psychological Testing** A study of the principles of measurement as applied to intelligence, aptitude, interest, and achievement testing.
- PSY 6583. Individual Intelligence Testing** A study of the theory and techniques of individual intelligence testing with a major focus on the Wechsler scales. Prerequisite, Permission of professor and PSY 6573 Psychological Testing.
- PSY 6603. Professional School Psychology** Models of practice in school psychology; social, ethical, and legal issues; professional roles; problems of professional practice in school and community settings.
- PSY 6613. Professional Consultation** A study of roles and characteristics of consultants and consultees, legal and ethical issues in consultation, and evaluation of consultation practices. Includes practical experiences for skills development. Prerequisite, PSY 6113.
- PSY 6623. Child & Adolescent Psychopathology** Biological, cultural and social influences on child and adolescent psychopathology. Prerequisite, PSY 4533 or equivalent.
- PSY 6633. Foundations of Organizational Psychology** Overview of organizational psychology, including organizational climate and culture, job satisfaction, organization employee fit, job design and motivation, and organizational justice with emphasis on classic theoretical literature and recent empirical research. Prerequisite, Acceptance to the Master of Science in Psychological Science program or instructor permission.
- PSY 6643. Foundations of Cognitive Psychology** Examination of cognitive processes such as pattern recognition, attention, memory, language, problem-solving and decision making, and concepts and categories with an emphasis on theoretical developments, recent empirical findings, and applications in applied settings. Prerequisite, Acceptance to the Master of Science in Psychological Science program or instructor permission.

- PSY 6653. Foundations of Social Psychology** Detailed examination of various topics of current interest in social psychology including, attitude theory and measurement, social cognition, persuasion and conformity, and social neuroscience, with emphasis placed on recent empirical research and theoretical developments in the field. Prerequisite, Acceptance to the Master of Science in Psychological Science program or instructor permission.
- PSY 6663. Advanced Psychological Seminar** An overview of theoretical perspectives, research methodology, and real world implications of a specific domain area within psychology. Prerequisite, Acceptance to the Master of Science in Psychological Science program or instructor permission.
- PSY 6683. Crisis Prevention and Intervention in School and Community Settings** A d - vanced study of crisis in school and community settings with an emphasis on prevention, service delivery, and screening/assessment including every-day crisis, suicide, violence, homicide, psychosis, and natural and man-made disasters.
- PSY 6693. Implementation Science in Education** Evidence-based resources using implementation research findings in psychology to improve all aspects of education, from individual teaching programs to organizational development with an emphasis on policies, strategies, and interventions in schools that have demonstrated effectiveness. Prerequisite, instructor permission.
- PSY 680V. Thesis** Prerequisite, Acceptance to the Master of Science in Psychological Science program.
- PSY 7223. Research Design and Program Evaluation in Psychology and Counseling** A study of quantitative research designs, qualitative research techniques, and appropriate statistics in the context of psychology and counseling with emphasis on evaluating published research and designing and evaluating intervention programs. Prerequisite, PSY 6213 or equivalent and permission of professor.
- PSY 7511. Psychoeducational Assessment Lab** Advanced lab in the principles of measurement of psychoeducational constructs emphasizing mastery level administration, scoring, and interpretation of psychoeducational measures. Prerequisite, PSY 6583, co-requisite PSY 7513 or instructor permission.
- PSY 7513. Psychoeducational Assessment** A study of psychoeducational assessment of school age individuals. Emphasis will be placed on the process and content of writing reports based on psychoeducational measures. Prerequisites, PSY 6583 or instructor permission.
- PSY 7523. Psychoeducational Intervention** Exploration and utilization of evidence-based educational and psychological interventions for the purpose of preventing and intervening in school-based learning and behavioral problems. Prerequisite, Permission of Professor.
- PSY 7533. Psychopathology** An examination of selected adult and childhood mental disorders with emphasis on assessment, classification, and intervention. Prerequisite, PSY 4533, Abnormal Psychology or equivalent.
- PSY 7563. Theories of Learning** An examination of various learning theories and their implications for human behavior. Prerequisite, permission of professor.
- PSY 7583. Developmental and Differential Psychology** Developmental aspects of psychological functioning, with emphasis on individual differences. Prerequisites, Undergraduate development psychology class or equivalent or permission of professor.
- PSY 7613. Practicum in School Psychology** Supervised practice in school psychology in an appropriate setting. Prerequisites, PSY 6573, PSY 6583, PSY 6603, PSY 7513, permission of the school psychology committee and the professor.
- PSY 7623. School Psychology Practicum in Applied Settings I** Supervised practice of school psychology in an settings such as preschools, child cares, transition programs, and clinical settings. Prerequisites, PSY 7513, permission of the school psychology committee and the instructor.
- PSY 7643. School Psychology Practicum in Applied Settings II** Supervised practice of school psychology in applied settings such as preschools, child cares, transition programs, and clinical settings. Prerequisite, PSY 7623 and permission of the school psychology committee and the instructor.

- PSY 7633. Physiological Psychology and Psychopharmacology** This course focuses on the interaction of biological structure and function with behavior and the role of endogenous chemicals in this interaction. The course addresses biological correlates associated with major mental disorders and exogenous chemical agents used in treatment. Prerequisite, instructor permission.
- PSY 770V. Special Problems in Psychology** Advanced study of a specific problem in psychology. Student must submit a written proposal in advance that outlines the study and expected products for evaluation. This proposal also requires written approval of the professor and the department chair. This course is not intended to replace any course in the curriculum.
- PSY 772V. Independent Study** Advanced study of a specific topic or content in psychology not addressed in the curriculum. Student must submit a written proposal in advance that outlines the topic or content and expected products for evaluation. This proposal also requires written approval of the professor and the department chair. This course is not intended to replace any course in the curriculum.
- PSY 780V. Thesis**
- PSY 782V. Supervised Internship** Supervised experience in an appropriate professional setting Prerequisite, Must have completed all coursework prior to beginning internship hours and must have permission of the school psychology committee and the professor.

College of Engineering and Computer Science

DEPARTMENT OF COMPUTER SCIENCE

Computer Science (CS)

- CS 5012. Accelerated Structured Programming** First course in programming, emphasis on programming methodology, procedural abstraction, and top down design. Introduction to string processing, file input and output, recursion, and simple data structures. Cannot be used for CS degree credit. Prerequisite, Permission of Computer Science faculty.
- CS 5022. Accelerated OOP and Fundamental Data Structures** Emphasis on object-oriented programming techniques. Introduction to abstract data types. Linked lists, stacks, queues and binary trees. Searching and sorting techniques. Cannot be used for CS degree credit. Prerequisite, Permission of Computer Science faculty.
- CS 5032. Accelerated Algorithms and Advanced Data Structures** Analysis of data structures and associated algorithms. Examination of advanced tree structures, heaps, hashing techniques, and graph algorithms. Cannot be used for CS degree credit. Prerequisite, Permission of Computer Science faculty.
- CS 5113. Software Engineering I** Techniques of design, implementation, and automated tools, quality assurance, metrics, and maintenance for large scale software systems. Projects will provide team programming experience. Dual listed as CS 4113. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5123. Software Engineering II** Continuation of Software Engineering I; the survey techniques for dealing with large scale software systems begun there continues here. Projects will provide team programming experience. Prerequisite, CS 5113.
- CS 5133. Compilers** Techniques for the construction of compilers. BNF and EBNF representations. Lexical, syntactic and semantic analysis. Top-down and bottom-up parsing. Construction of run-time systems and symbol table routines. Code generation and optimization. Automation tools. Dual listed as CS 4133. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5213. Distributed Computing** Study of client-server systems, distributed databases, distributed transaction processing, and distributed applications. Provides overview of recent trends in distributed object technologies. Applications will be designed and constructed using object software architectures. Dual listed as CS 4213. Prerequisites, CS 3113 or "B" or better in CS 5032.
- CS 5223. UNIX Systems Programming** System-level programming in UNIX systems. Dual listed as CS 4223. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5313. Computer Networks** Issues and principles involved in the design of computer networks using the OSI reference model as a framework. Dual listed as CS 4313. Prerequisite, CS 3233 or "B" or better in CS 5032.
- CS 5413. Fundamental Computer Graphics** The creation, storage, and manipulation of models of objects and their pictures via computer. Implementation of graphics routines beginning at the device driver level and continuing with two and three dimensional techniques. Dual listed as CS 4413. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5423. Interactive Computer Graphics** Techniques for creating realistic environments. Topics include hidden surface removal, shading, shadowing, reflection, refraction, and color theory. Dual listed as CS 4423. Prerequisite, CS 3113 or "B" or better in CS 5032.

- CS 5433. Artificial Intelligence** Representation of knowledge and introduction to a functional programming language; search methods and control. Typical applications of artificial intelligence. Dual listed as CS 4433. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5543. Database Systems** Topics include major database models; relational algebra; data independence and database normalization; entity relationship model; security, integrity, recovery and concurrency issues; physical organization of a database. Dual listed as CS 4543. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5613. Mobile Application Development** Creation of mobile applications for iOS and Android devices through a project-based environment, deployment of applications to mobile hardware and how to effectively work in a team environment for application development. Dual listed as CS 4613. Prerequisites, CS 3113 or "B" or better in CS 5032 or instructor permission.
- CS 5623. Fundamentals of Data Science** Study of the practices and techniques associated with data science, including programming for data analytics, modern technologies for data access in distributed and parallel systems, and an overview of machine learning models. Prerequisites, CS 3113 or "B" or better in CS 5032, and STAT 3233.
- CS 5713. Analysis of Algorithms** The analysis of space and time requirements of algorithms. Worst-case and average case studies. Greedy algorithms and divide-and-conquer algorithms examined. Tractable and intractable algorithms surveyed. Dual listed as CS 4713. Prerequisites, CS 3113 or "B" or better in CS 5032, and MATH 2214.
- CS 5723. Automata Theory** Study formal languages and equivalent models of computation. Finite state automata and regular expressions. Push-down automata and context free grammars. Pumping lemmas and closure properties. Turing Machines. Dual listed as CS 4723. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 5823. Scripting Languages** Examination of scripting languages compared to conventional programming languages and construction of domain-specific solutions for common problems in GUI, networking, and web programming. Dual listed as CS 4823. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 583V. Internship** Supervised work experience participating in application system development in a business/manufacturing environment. Grade earned will be pass or fail. Prerequisites, Permission of the Computer Science faculty, CS 3113 or "B" or better in CS 5032, and either CS 3123 or CS 5113.
- CS 6123. Software Security** Study of security issues in the software development process, including security management, secure software development lifecycle, language security, and web application security. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.
- CS 6213. Parallel Processing** Parallel processing and supercomputer architecture with emphasis on efficient utilization of resources. Prerequisite, CS 3223, or "B" or better in CS 5032 and permission of professor.
- CS 6223. Advanced Computer Architecture** Advanced topics on computer architecture, including: memory hierarchy design; instruction-level parallelism in pipelines; data-level parallelism in vector, SIMD, and GPU architectures; thread-level parallelism; warehouse-scale computers. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3223.
- CS 6233. Operating System Design** Advanced topics on the design and implementation of major operating systems, including memory management, kernel data structures, process management, file systems, devices and modules. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.
- CS 6243. Distributed Systems** Advanced topics on distributed computing systems including computing models, cluster computing, Grid computing, service computing, virtual machines, cloud computing, peer-to-peer computing and major distributed algorithms. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.

- CS 6253. Heterogeneous Computing** The study of the ecosystem of co-processing elements such as the Graphics Processing Unit or GPU in modern computing systems, covering hardware architecture, software design, the programming paradigm, and related libraries. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.
- CS 6263. Cloud Computing** Major aspects of the cloud ecosystem including conceptual basis, design, virtualization, architecture, storage, programming paradigms, and software development. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.
- CS 6313. Data Security** Methods for protection, security, and privacy of data; access controls, authentication, cryptographic controls, information flow controls, security kernels. Security of data in networks. Prerequisite, CS 3233 or "B" or better in CS 5032.
- CS 6323. Computer Security** Survey of the latest security issues in computer systems, including topics such as authentication, access control, database security, operating system security, security management and trust and privacy in computing. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.
- CS 6333. Network and Internet Security** Survey of network authentication, network access control, key management in networked systems, network security protocols, network security software and packages, and network security auditing. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 4313 or CS 5313.
- CS 6343. Cloud Security** Survey of the major security aspects of cloud computing and the corresponding mechanisms, including cloud security management, architecture and measurement as well as virtual machine security and real world cloud security examples. Prerequisites, CS 3113 or "B" or better in CS 5032, and CS 3233.
- CS 6353. Hardware Security** A comprehensive overview of electronic devices and computer hardware subsystems at all levels, related hardware attacks and their corresponding countermeasures as well as major security services provided by computer hardware. Prerequisites, CS 3113 or a grade of B or better in CS 5032 and CS 3223.
- CS 6413. Solid Modeling** Examination of advanced modeling techniques with emphasis on radiosity. Techniques for rapid interactive display of a complex three-dimensional environment will be developed. Prerequisite, CS 3113 or "B" or better in CS 5032 or CS 5423.
- CS 6423. Robotic Software Control** Study of robot manipulators from mathematical and programmed control perspectives. Topics include kinematic representation, manipulator positioning, velocity control, and trajectory calculation. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 6433. Natural Language Processing** Data representations used in programming computers to interpret and to generate natural language text. Background from linguistics, theoretical computer science and lexical analysis; structures and algorithms for syntactical analysis, semantic analysis, and knowledge representation. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 6443. Machine Learning** The theory and practice of machine learning from a variety of perspectives. Topics include supervised learning (classification, regression); unsupervised learning (clustering, dimensionality reduction); reinforcement learning; and computational learning theory. Prerequisites, CS 3113 or "B" or better in CS 5032, and STAT 3233.
- CS 6463. Image Processing** Survey of digital image processing topics such as image transforms, noise reduction and image enhancement techniques, filtering, image restoration methods, image compression, segmentation, edge detection, and feature extraction. Prerequisites, CS 3113 or "B" or better in CS 5032.
- CS 6513. Data Compression and Indexing** Compressing, indexing and querying large collections of text and image data. Prerequisite, CS 5123 or CS 5713 or "B" or better in CS 5032 and instructor permission.

- CS 6523. Data Mining Techniques** Exploration of the algorithms and methodologies in knowledge discovery and data mining used to find information or knowledge of interest in large data sets efficiently. Prerequisites, CS 3113 or "B" or better in CS 5032, and STAT 3233.
- CS 6543. Advanced Database Systems** A study of the internals of database systems as a basis for system implementation and performance tuning, including the topics of database system architecture, transactions and serializability, recovery from errors, query optimization, and new technologies in database systems. Prerequisites, CS 3113 or "B" or better in CS 5032, CS 3233, and CS 4543 or CS 5543.
- CS 6613. Bioinformatics** Application of computational algorithms and approaches to the solution of biological problems. Problems are generally formulated as computational problems on strings, sequences, trees, and graphs. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 6713. Advanced Analysis of Algorithms** Theoretical space and time requirements for algorithms. Prerequisite, CS 5713.
- CS 6723. Computability Theory** Turing machines and equivalent models of computation. The universal Turing machine and unsolvability results. Study of computable functions. Problem classification and hierarchy. Prerequisite, CS 5723 or "B" or better in CS 5032 and permission of professor.
- CS 6813. Seminar in Computer Science** Current topics in Computer Science. Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 6823. Special Topics** Current topics of interest to graduate computer science students. (May be repeated for credit with different subtitle. ONLY six hours with the same course number will count toward the degree.) Prerequisite, CS 3113 or "B" or better in CS 5032.
- CS 688V. Independent Study**
- CS 689V. Thesis**

Computer Science Education (CSED)

- CSED 5043. Principles of Computer Programming** Programming methodology, procedural abstraction, top-down design, object-oriented techniques, fundamental data structures such as linked lists, stacks, queues and binary trees, searching and sorting techniques, and an introduction to algorithm analysis, all with an emphasis on pedagogy in the secondary school.
- CSED 5231. Principles of Operating Systems** Policies, design issues, and implementation techniques for operating system software. Synchronization, process scheduling, memory and storage management, and system protection with an emphasis on pedagogy in the secondary school. Prerequisites, CS 3113 or "B" or better in CSED 5043.
- CSED 5241. Principles of Computer Organization** Basic principles of computer architectural design with an emphasis on pedagogy in the secondary school. Prerequisites, CS 3113 or "B" or better in CSED 5043.
- CSED 5731. Principles of Abstract Structures** Foundational computer science concepts, including algorithm complexity and structures such as sets, trees, and graphs, with an emphasis on pedagogy in the secondary school.
- CSED 6113. Principles of Software Engineering** Techniques of design, implementation, quality assurance, and maintenance for large scale software systems with an emphasis on pedagogy in the secondary school. Prerequisites, CS 3113 or "B" or better in CSED 5043.
- CSED 6713. Principles of Analysis of Algorithms** The analysis of space and time requirements of algorithms with an emphasis on pedagogy in the secondary school. Prerequisites, CS 3113 or "B" or better in CSED 5043, and MATH 2214.

CSED 6723. Principles of Automata Theory Study formal languages and equivalent models of computation with an emphasis on pedagogy in the secondary school. Prerequisites, CS 3113 or "B" or better in CSED 5043.

CE 5893. Sustainability and Water Resources Fundamental concepts of sustainability, the interconnection of the water system with other systems, the environmental and socio-economic aspects of water systems, and case studies for sustainable strategies. Lecture three hours per week. Dual listed as CE 4893. Prerequisites, C or better in CE 3253 and CE 3263.

ENGINEERING PROGRAMS

Civil Engineering (CE)

CE 5223. Transportation Engineering Principles of highway survey and locations, geometric design, highway materials, pavement design, highway drainage, and pavement management. A highway design project is required. Prerequisites, C or better in CE 3223 and CE 4203. Corequisites, CE 4251 and CE 4253. Dual listed as CE 4223.

CE 5233. Foundation Engineering Prediction of soil variation, soil investigations, stress distribution and bearing capacity, dewatering analysis and procedures, and settlements. The design and analysis of retaining structures and lateral earth pressures, shallow foundations, pile foundations. Three foundation design projects are required. Prerequisites, C or better in CE 2202 and CE 4253. Dual listed as CE 4233.

CE 5243. Reinforced Concrete Design Design of beams with bending, and shear stress, splicing design and deflection calculations, design columns. Prerequisites, C or better in CE 3213. Dual listed as CE 4243.

CE 5253. Soil Mechanics Physical properties of soils as used in design, specific gravity, grain size distribution, plasticity, shrinkage, permeability, compressibility, consolidation and shear strength. Foundation design for consolidation. Corequisites, ENGR 3473 and CE 4251. Dual listed as CE 4253.

CE 5263. Water and Waste Treatment Design of physical, chemical and biological unit processes for treatment of water, wastewater and sludges. Advanced wastewater treatment processes are presented. Student papers on selected waste treatment applications are required. Prerequisites, C or better in CE 3273. Dual listed as CE 4263.

CE 5273. Advanced Soil Mechanics Advanced theories and concepts in the areas of subsurface exploration, soil mineralogy, compressibility of soil and rock, stress distribution and settlement, and shear strength of soil and rock. Undergraduate coursework in soil mechanics. The course is restricted to engineering graduate students.

CE 5283. Structural Steel Design Design of structural systems in steel. Design of tension and compression members, beams with bending and axial stresses, bolted and welded connections. Prerequisite, C or better in CE 3213. Dual listed as 4283.

CE 5293. Advanced Civil Engineering Materials Advanced topics in civil engineering materials, design and characterization of asphalt cement and asphalt concrete mixtures, design and characterization of Portland cement concrete, and application of composite materials to civil engineering projects. Undergraduate coursework in civil engineering materials. Restricted to engineering graduate students.

CE 529V. Special Topics in Civil Engineering Each special topic is selected on the basis of the needs of the graduate class.

CE 5803. Open-Channel Flow Fundamental concepts of open channel hydraulics, velocity distribution, flow measurements, specific energy concept, and flow analysis for uniform flow, gradually varied flow, and unsteady flow. Dual listed as CE 4803. Prerequisite, CE 3253.

CE 5813. Groundwater Hydrology Physical principles governing groundwater flow and dynamics and the impact of human activity on the groundwater sources. Dual listed as CE 4813. Prerequisite, C or better in CE 3253.

Electrical Engineering (EE)

EE 529V. Special Topics in Electrical Engineering Each special topic is selected on the basis of the needs of the graduate class.

EE 5303. Electromagnetic Waves Study of time harmonic electromagnetic wave interaction with materials including energy and momentum, polarization, reflection, refraction, waveguides, radiation, and scattering. Prerequisites, undergraduate introduction to electromagnetic field theory and differential equations. Dual listed as EE 4303.

EE 5313. Control Systems Analysis and design of linear feedback systems. Transfer functions, state-space analysis, transient and steady state characterization, and stability determination. Closed loop analysis and design using root locus and frequency domain methods. Prerequisites, C or better in EE 3403. Corequisite, EE 3353. Dual listed as EE 4313.

EE 5323. Electrical Machinery Introduction to the analysis and design of electromechanical energy conversion systems, magnetic circuit theory, general transformer and machinery theory, and DC and AC motors and generators. Prerequisite, C or better in EE 3313 or ENGR 3473, and ENGR 3423. Dual listed as EE 4323.

EE 5333. Communications Theory Frequency spectra of time signals. Review of Fourier series and transforms. Signal mixing, modulation, and demodulation. AM and FM broadcasting techniques and bands. Pulsed and digital communication modes. Prerequisite, C or better in EE 3353 (Continuous and Analog Systems) and ENGR 3403 (Electronics 1). Dual listed as EE 4333.

EE 5343. Digital Signal Processing Introduction to the analysis and design of discrete linear systems and processing of digital signals. Topics include; time and frequency domain approaches to discrete signals and systems, discrete Fourier transform and its computation, and design of digital filters. Prerequisites, EE 3353 Signals and Systems, EE 3403 Electronics I, and EE 3333 Digital Electronics I.

EE 5344. Embedded Systems A microcomputer hardware interfacing course for senior level engineers. A survey of small computers and their engineering functions including control, sensing, and computation. The concept of using assembly language and other languages as control programming languages are introduced. Prerequisites, C or better in EE 3333 and EE 3331. Dual listed as EE 4344.

EE 5353. Power Systems Generation, transmission, and distribution of large scale electrical power, associated energy losses and practical design problems and complications. Transmission line analysis. Three phase power networks. Load monitoring and control. Prerequisite, C or better in EE 3313 and ENGR 3423. Corequisite, MATH 4403. Dual listed as EE 4353.

EE 5354. Intelligent Control Systems Introduction of fuzzy logic, fuzzy logic in control engineering, neural networks, Bayesian or belief networks, neuro-fuzzy systems, neuro-fuzzy controllers, controller design, and application problems. Prerequisites, EE 4313, EE 5313, or ME 3613.

EE 5373. Electronics II A continuation of EE 3403 with emphasis on the analysis, simulation, and design of feedback, operational amplifier systems, frequency response, integrated circuits and power and waveshaping circuits. Prerequisite, C or better in EE 3313, ENGR 3443, and EE 3403. Dual listed as EE 4373.

EE 5383. Digital Electronics II Continuation of the study of digital circuit design with emphasis on the design of larger systems and use of LSI components. Register transfer logic, computer interfacing and design, microcomputer based system design. Prerequisite, C or better in EE 3333. Dual listed as EE 4383.

EE 5743. Digital Communications Continuation of communications theory with emphasis on modulation and demodulation techniques, signal space representation of digitally modulated signals, coherent/non-coherent detection methods (and receiver structures) in AWGN channel, error performance, communication over band-limited channels with ISI and AWGN. Prerequisite, EE 3373 and EE 4333. Dual-listed as EE 4743.

Engineering Management (EGRM)

EGRM 5023. Engineering Management I The essentials of management that are pertinent to practicing managers are emphasized. The theory, principles, and techniques are presented as an art and applying the science of the underlying organized knowledge of management to the realities of situations.

EGRM 600V. Engineering Capstone Engineering Capstone research project that includes literature review, data collection, analysis of data, and conclusions. Final project report and oral defense required. May be repeated. Maximum of three hours of letter grade counted toward degree. Must be registered for 1 hour course until capstone project is completed. Approval of program director required.

EGRM 6003. Engineering Statistics Basic concepts and methods of descriptive and inferential statistics including graphical techniques, measures of central tendency and dispersion, interval estimation, hypothesis and goodness of fit tests, comparisons of two populations, and analysis of variance.

EGRM 6013. Quality Control and Improvement A brief review of the evolution of quality control and improvement theory particularly as influenced by key pioneers such as Deming, Juran, and Taguchi. Extensive coverage of selected quality improvement techniques includes statistical process control, inspection sampling, and design of experiments. Introductory elements of statistics will be introduced.

EGRM 6033. Engineering Management II Principles and practices of engineering management including marketing management, globalization, time management, forecasting, finance, cost, accounting, managing technology, engineering management in the new millennium; invited lectures and seminars covering projects of interest to civil, electrical, mechanical, and manufacturing engineers in management positions.

EGRM 6043. Operations Research Quantitative techniques for decision making; break-even analysis, economic models, Gaussian distributions, inventory control, production models, and mathematical programming. Introductory elements of statistics will be introduced.

EGRM 6053. Advanced Engineering Economy Methodical assessment of the economic benefits and expenditures of projects concerning engineering design and analysis, including economic analysis for decision-making among contending opportunities.

EGRM 6063. Engineering Law and Ethics Introduction and application of legal concepts relating to the field of engineering management, including general principles, contracts, torts, real property, agency, intellectual property, product liability and safety, and professional legal ethics.

EGRM 6073. Special Problems in Engineering Management Selected advanced topics of current interest. Ordinarily, topics covered are those not available in other graduate courses.

EGRM 6083. Project Management for Engineers Fundamentals of project management for engineering and information systems projects based on the principles established by the Project Management Institute's Project Management Body of Knowledge.

EGRM 6093. Advanced Value Engineering Advanced application of techniques which maximize the value of products, processes, construction, or services. Topics covered include functional analysis, functional costing, generation of alternative designs, evaluation of alternative designs, lifecycle cost analysis, proposal preparation, and presentations.

EGRM 6103. Entrepreneurship for Engineers Entrepreneurship and innovation from perspectives at the political, social, and personal levels.

EGRM 6113. Finance and Budgeting for Engineering Introduction and orientation to financial matters that concern engineers, with an emphasis on financial statements, cash flows, net present value calculations, and capital budgeting.

EGRM 6123. Human Resource Management for Engineers Introduction to the strategic application of human resource management in an organization, including human resource leadership, e-recruitment strategies, equal employment selection, employee retention and turnover, performance management, employment law, diversity and global talent management.

EGRM 6133. Internship in Engineering Supervised professional experience in industry at the graduate level. This course provides the structure and focus for a graduate intern field assignment, ensuring that the internship experience is appropriate and consistent with the students course of study and professional development.

EGRM 6143. Industrial Material Handling An introduction to the field of material handling, including systems analysis, equipment selection, and the relationship of material handling to other activities and operations of the industrial plant or warehouse. You will learn how to plan and analyze material handling systems; how to improve material handling operations; and when to apply material handling automation.

EGRM 6153. Advanced Facilities Management Advanced methods of designing new facilities and expanding or renovating existing facilities, facility layout, facility location, and activities are presented. Topics such as analysis of workspace, workflow, material handling systems, facility planning data collection methods, and process flow-charting are covered.

EGRM 6163. Advanced Logistics and Supply Chain Advanced topics of logistics operations in transportation, concepts of facilities and methods used in supply chain. Third party logistics, fleet management, physical distribution and a number of other concepts are introduced.

Engineering (ENGR)

ENGR 5703. Environmental, Safety, and Health Engineering Survey and analysis of contemporary environmental, safety, and health-related topics pertinent to engineering and technology applications and practice, including technical, regulatory, economic, and other non-technical aspects. Prerequisite, admission into the Engineering Management graduate program.

ENGR 6013. Advanced Experimental Methods Concepts of advanced measurement methods, measurements, analysis, and reporting. Topics include design of experiment, interfacing, photography and basic optics, image processing, flow visualization, high speed motion analysis, radiation detectors, monochromators, flame emission spectroscopy/scanning, flame probe and phase transition characteristics.

ENGR 6023. Advanced Engineering Math Advanced analytical techniques for the solution of engineering problems including applications in vibrations, electricity and magnetism, optics, and thermodynamics. Topics include introduction to modeling, linear algebra, tensor calculus, linear/nonlinear system solution, boundary value problems, transforms, and complex analysis.

ENGR 6033. Micro and Nanomanufacturing Advanced manufacturing technology based on the integration of science, engineering, and technology. Topics include micro and nanosciences, micro electro-mechanical system (MEMS/NEMS) machining and fabrication, measurement using advanced microscopes, and device applications such as sensors and actuators.

ENGR 6043. Applied Probability and Estimation Application of probability to the analysis of engineering systems with inherent randomness to achieve efficient use of information in engineering analysis. Topics include random variables, statistics, probability density functions, noise, nonrandom parameter estimation, bounds, Bayesian estimation, detection, and filters. Prerequisite, Graduate standing in engineering or consent of instructor.

ENGR 6053. Sustainable Engineering and Development Introduction to sustainability; risk and life-cycle frameworks for sustainability; guiding principles of engineering; green and sustainable materials; design for sustainability; sustainable engineering best practices; a sustainable design project will be required. Prerequisite, Graduate standing.

ENGR 6113. Materials Science and Engineering Principle concepts and advanced studies in materials science and engineering for graduate level students. Fundamental topics such as material properties in microstructures and modern solid state physics and quantum mechanics are introduced.

ENGR 6123. Engineering Optimization Formulation and modeling aspects of engineering problems using various optimization techniques to seek optimum value and design under specific requirements. Set-up numerical formulations and algorithms, introduction of design of experimental methods, and application to practical engineering problems included.

ENGR 6133. Engineering Electrodynamics Dynamic theory of material interactions with electricity, magnetism, and light based on conservation of energy and momentum. Examples include modern applications of optical manipulation such as optical tweezers and optical binding of matter. Prerequisite, ENGR 6023 Advanced Engineering Math and an undergraduate course in electromagnetics.

ENGR 6143. Advanced Heat and Mass Transfer Conservation laws, steady/unsteady conduction, mass diffusion, exact/numerical solutions of PDE, FDM, Fourier/Laplace transform in heat transfer, convection, heat transfer in Couette/Poiseuille/Falkner-Skan flows, heat transfer in laminar/turbulent boundary layer, natural convection and radiation. Prerequisite, Undergraduate coursework in fluid mechanics and heat transfer.

ENGR 6153. Advanced Fluid Mechanics Principal concepts and advanced topics in fluid mechanics including vector analysis, kinematics, control volume theorem, continuity, momentum, Navier-Stokes, Euler and Bernoulli equations, potential flow, circulation, vorticity, similarity, boundary layers approximation and turbulence. Prerequisite, Undergraduate course in fluid mechanics.

ENGR 6163. Analysis and Design of Pavements Stress and strain analyses of flexible and rigid pavements; designs of pavements using empirical and mechanistic approaches; reliability, material characterization, traffic data, and local calibration of mechanistic design of pavements; and sustainable materials and technologies. Undergraduate coursework in civil engineering materials and transportation engineering; restricted to engineering graduate students.

ENGR 6233. Advanced Foundation Engineering Advanced theories and concepts in the areas of shallow foundations, deep foundations, foundations on problematic soils, reinforced earth slopes and mechanically stabilized earth retaining walls. Undergraduate Coursework in Soil Mechanics and Foundation Engineering; Restricted to engineering graduate students.

ENGR 629V. Special Topics in Engineering Each special topic is selected on the basis of the needs of the graduate class.

ENGR 6693. Engineering Research Directed study in a specialized aspect of engineering designed to provide experience in independent investigations. Prerequisite, Permission of research advisor and Master of Science in Engineering Program Director. The course is restricted to students earning a Master's degree in Engineering.

ENGR 689V. Thesis

Mechanical Engineering (ME)

ME 5503. Fluid and Thermal Energy Systems Analysis and design of components, systems, and processes using the fundamentals presented in Thermodynamics, Fluid Mechanics, and Heat Transfer. Prerequisites, C or better in ME 3533 and ME 4553.

ME 5523. Introduction to Finite Element Analysis Theory and application of energy concepts and structural mechanics required for the development of finite element methods are presented. Applications to beams, trusses, torsion, etc. are presented. Prerequisites, C or better in ENGR 2413. Dual listed as ME 4523.

ME 5543. Machine Design Analysis and design of mechanical system components using theoretical and empirical concepts coupled with computational modeling and numerical analysis. Prerequisites, C or better in ENGR 2413. Dual listed as ME 4543.

ME 5553. Heat Transfer Application of theories of heat transfer by conduction, convection, and radiation to manufacturing processes and industrial applications. Prerequisites, C or better in MATH 4403, ENGR 2423, ENGR 3443, and ENGR 3473. Dual listed as ME 4553.

ME 5583. Energy Conversion Combustion analysis of hydrocarbon fuels. Transmission of energy by mechanical, electrical, and hydraulic means. Selected topics in mass transfer and fluid mechanics. Prerequisite, C or better in me 3533 and ME 4553. Dual listed as ME 4583.

ME 5593. Design of Heating, Ventilating, and Air-Conditioning Systems Design of HVAC systems to modify environmental conditions. Prerequisite, C or better in ENGR 3443. Dual listed as ME 4593.

ME 5613. Introduction to Mechatronics With an emphasis on modeling, the course focuses on the performance characteristics and application of microprocessors, analog and digital electronics, and modern mechatronic systems and intelligent manufacturing, particularly smart sensors, controllers, and actuators. Prerequisite, C or better in MATH 4403. Corequisite, ME 3504. Dual listed as ME 4613.

ME 529V. Special Topics in Mechanical Engineering Each special topic is selected on the basis of the needs of the graduate class.

College of Liberal Arts and Communication

Media and Communication (CMAC)

- CMAC 6053. Quantitative Research Methods** Study of the tools and techniques of empirical research as they may be applied to mass communications.
- CMAC 6203. Introduction to Graduate Study** Survey of research methods; evaluation of selected studies; preparation of thesis.
- CMAC 6253. Qualitative Research Methods in Communications** This course is designed to acquaint students with major approaches to qualitative inquiry in the field of communication. Students will gain experience in collecting, analyzing, and interpreting qualitative data as well as in writing qualitative research reports.
- CMAC 6463. Media Management Applications** CAPSTONE EXPERIENCE. Discussion and application of MSMM program-provided content to address real-world media management problems. Course should be taken the final term of completing degree requirements. Strongly recommended it be the only course of enrollment that term.

DEPARTMENT OF ART + DESIGN

Art Education (ARED)

- ARED 6703. Applied Visual Art Infusion: Contemporary Approaches** Curriculum development and application of art-infused contemporary models to integrate the visual arts with other subject area content. Prerequisite: Acceptance to the MAT Teacher Education Program.

DEPARTMENT OF COMMUNICATION

Communication Studies (COMS)

- COMS 5203. Small Group Communication** Group and conference techniques for classroom, business, and professional situations.
- COMS 5243. Interpersonal Communication** Emphasis on increasing the student's capacity for openness, sensitivity, and objective appraisal.
- COMS 5253. Intercultural Communication** Identification of barriers, and breakdowns to communication among cultures.
- COMS 5263. Organizational Communication** Dynamics and theories of communication within an organization.
- COMS 5293. History and Criticism of American Public Address** Historical background and significance of leading orators in America.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

- COMS 5323. Communication in Personal Relationships** The course covers interpersonal communication in the context of personal relationships such as romantic relationships, friendships, professional relationships, and family relationships.

- COMS 5373. Conflict Resolution** The conflict and communication course examines conflict as a communication variable created through interpersonal interaction in dyads, small groups, families, and organizations. Dual listed as COMS 4373.

- COMS 5383. Computer Mediated Communication** This course considers how identities, relationships and communities are created and influenced by our use of computers and the internet. We will gain understanding of these processes by engaging new media scholarship and activities involving different forms of new media. Dual listed as COMS 4383.

- COMS 5403. Seminar in Health Communication** Study of the major cultural, interpersonal, and public communication issues affecting health communication.

- COMS 5423. Narratives in Health and Healing** Explores the social construction of health, illness and healing through the study of narrative. Dual listed as COMS 4423.

- COMS 5433. Health Communication Campaigns** Planning, implementation, and evaluation of health communication campaigns.

- COMS 6103. Communication Theory** Theories, models, and approaches relevant to the study of human communication.

- COMS 6233. Communication Education** A study of the history and philosophy of the pedagogy of communication studies, to include both theoretical and applied aspects of the discipline.

- COMS 6243. Seminar in Interpersonal Communication** This course is designed to introduce students to foundational as well as current theory and research in interpersonal communication. Students will examine several interpersonal communication contexts and processes as well as methodologies in interpersonal communication.

- COMS 6273. Rhetorical Theory and Criticism** Examination of a broad range of rhetorical theories to help students make critical and analytical applications to public discourse.

- COMS 6413. Organizational and Intercultural Communication** Course will introduce students to intercultural communication and function of organization communication in the workplace, addressing how effective communication within organizations affects business and how to advance intercultural skills while being aware of different world views.

- COMS 660V. Internship in Communication Studies** Combines relevant work experience with classroom theory.

- COMS 670V. Thesis**

- COMS 680V. Independent Study**

Strategic Communication (STCM)

- STCM 5013. EU and US Data Protection Law** Comparison of the European Union and United States data protection systems, including sector-specific regulations such as those from the Federal Trade Commission.

- STCM 5113. Integrated Marketing Communication** Focuses on the strategic integration of various channels and methods of communication for the purpose of delivering key messages to diverse target audiences in order to elicit responses, create a dialogue and engender relationship-building.

- STCM 5123. International Intellectual Property Law** Examination of the International Intellectual Property System (IIPS) and its development in response to international trade and digital innovations. Subject areas include a primary focus on copyright and trademark with some coverage of patent law.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

- STCM 5143. Privacy Law** The history and development of privacy law, and the challenges of government regulation of information where institutions and individuals need and reveal information constantly, but also seek basic dignity and safety from harm.
- STCM 5213. Social Media in Strategic Communication** This course examines concepts and applications of social media within mass communications, news, advertising, and public relations industries. We will explore and apply social media tools, integrating them into an organization's overall communication strategy.
- STCM 5463. Interactive Advertising** An introduction to the world of online interactive advertising. It surveys a variety of important topics, from integrating social media initiatives into the overall marketing communications plan to online display ads to developing an effective search engine strategy.
- STCM 5473. Social Media Measurement** Measurement and improvement of investment outcomes from use of social media in advertising, public relations, and marketing communications.
- STCM 5603. Crisis Communication** An investigation of communications during crises, focusing on public relations, advertising and other persuasive efforts by institutions, corporations, movement leaders, and citizens to describe, persuade and shape human interactions with their environment during a crisis.
- STCM 6023. Advanced Studies in Communications Law** An advanced study of communications law problems, issues, and responsibilities. Selected publications in the field will be examined. Individual projects concerning legal problems in freedom and responsibilities of the mass media.
- STCM 6033. Communication Regulations and Policy** Current and emerging issues in communications policy and regulation, including privacy, libel, FTC and FCC regulations, First Amendment issues, copyright and trademarks.
- STCM 6253. Audience Market Analysis** Using social scientific research methods for audience/consumer analysis, this course provides a survey of applications of research in media industries. Pragmatic task activities will be conducted via Nielsen, Arbitron, SRDS and related data sources to find audience market insights.
- STCM 6263. Advertising Account Management** Advanced study of the principles and practice of advertising account management. Includes an in-depth analysis of advantages and disadvantages of multiple media platforms and strategic communication in communicating messages to diverse target audiences and a discussion of effective and ethical client relationships.
- STCM 6303. Seminar in Strategic Communications** The role of strategic communications in and for organizations and brands, including communications objective(s), target audience(s), and key messages. Addresses application of communication theory and research related to public relations, advertising, and social media.
- STCM 6313. Information Technology Law** Application of principles of privacy law and technology to current legal and policy problems. Prerequisites, STCM 5013 and STCM 5143.
- STCM 6323. Global Strategic Communication** Survey of global strategic communication. Addresses case studies and campaigns in creating and disseminating messages across language, technology, and cultures for organizational issue management.
- STCM 6333. Development Communication** Theory and practice in development communication. Includes a focus on processes and systems of communications for social change and advocacy.
- STCM 6363. Advertising and Society** Advanced study of the relationship between advertising and society. Includes an examination of ethical and social ramifications of advertising in global and diverse societies and across multiple media platforms.
- STCM 6533. Strategic Communication Management Capstone** Students will investigate a real-world strategic communication issue, formulating solutions, recommendations and strategies that bridge the gap between theory and practice. Course will be taken the final term of completing degree requirements. Restricted to MS in Strategic Communication students. Prerequisites, STCM 6053, STCM 6253, STCM 6263, and STCM 6303.

DEPARTMENT OF CRIMINOLOGY, SOCIOLOGY AND GEOGRAPHY

Criminology (CRIM)

- CRIM 5313. Seminar on Organized Crime** Understand organized crime through historical and cultural frameworks, review the relationship between organized crime and federal, state, and local authorities and examine the policies to prevent organized crime. Prerequisite, Have a BA/BS in Criminal Justice, Criminology, Political Science, Psychology, or Sociology.
- CRIM 6133. Police and Society** Study of the evolution of policing and law enforcement as an instrument of formal social control including policing policy, organizational structure and design and various reform initiatives which have been attempted over time, including crime prevention and community problem solving.
- CRIM 6233. Criminal Justice Systems** A study of the general functions of the individual agencies and the duties and responsibilities of the individuals who perform these functions.
- CRIM 6343. Methods of Social Research** An examination of the logic of scientific inquiry and some commonly used research techniques in sociology with applications to selected examples of sociological research. Crosslisted as SOC 6343.
- CRIM 6383. Advanced Data Analysis** Assumptions, principles, and applications of ordinary least squares and logistic regression techniques including the basic model, dummy variables, and special functional forms. Emphasis on data acquisition, management, analysis, and report writing in sociological practice. Prerequisite, SOC 3383 or equivalent (PSY 3103, STAT 3233, ECON 2113, POSC 3003). Crosslisted as SOC 6383.
- CRIM 6403. Seminar in Juvenile Delinquency** An analytical survey of current research in juvenile delinquency involving causation, prevention, control, and treatment.
- CRIM 6513. Seminar in Community and Institutional Corrections** A study of the nature and effects of custodial institutions on the inmates; a review of community treatment programs and alternatives to incarceration.
- CRIM 6523. Seminar in Criminal Behavior** An analysis of criminal patterns of behavior and criminal typologies.
- CRIM 6653. Special Topics** Advanced study in a particular area of criminological inquiry. Topic varies. May be repeated for credit when topic changes.
- CRIM 6603. Internship**
- CRIM 670V. Thesis**
- CRIM 680V. Independent Study**

Geography (GEOG)

- GEOG 5113. Water Resource Planning** A study of the basic concepts of hydrology and the major issues associated with water resources planning and management.
- GEOG 5223. Urban Geography** A study of the structure, function, and problems of cities. Emphasizes patterns of population movement, growth, land use, industrial location, and city-region relationships.
- GEOG 5313. Advanced Perspectives in Historical Geography** Examines issues that are both chronological and spatial in nature including settlement patterns, migration, and population trends.
- GEOG 5613. Conservation of Natural Resources** Current problems associated with the conservation of natural resources.

GEOG 5623. Environmental Management A study of the dynamic nature of the earth's surface, using the hydrologic cycle as a broad framework for analyzing the physical environment and for assessing sound environmental management practices.

GEOG 5633. Climatology Climatic regions of the world; controlling factors of weather.

GEOG 5643. Geography of Arkansas A study of Arkansas' physical, historical, and cultural landscapes.

GEOG 5813. Special Topics in Geography An intensive study of a region or pertinent topic in geography. May be repeated once when topic changes.

Sociology (SOC)

SOC 5273. World Population and Society Basic concepts and measures of the three central demographic processes of fertility, mortality and migration and introduction of contemporary population related issues.

SOC 6003. Perspectives on Death and Dying In-depth multidisciplinary treatment of major themes and perspectives on dying, death and bereavement, including historical, cultural, social, and psychological aspects; medical, legal and ethical issues; grief and bereavement; the death system; violent death, disasters and megadeath; and beyond death.

SOC 6063. Sociology of Disasters Advanced socio-cultural analysis of natural and human-made disasters, with an emphasis on social causes and consequences.

SOC 6073. Sociology of Family Violence Causes, prevalence, and consequences of child abuse, intimate partner violence, and elder abuse.

SOC 6103. Social Change An examination of the sources, mechanisms, and consequences of social and cultural change.

SOC 6113. Seminar in Contemporary Sociology Controlled discussion of major social issues and problems as they relate to ongoing sociological research. (May be repeated for credit with different subtitle. ONLY six hours with the same course number will count toward the degree.)

SOC 6123. Aging, Law and Social Issues The operation and impact of various laws, policies, and regulations in the U.S. that affect later-life individuals and their families, with a discussion of possibilities for future trends.

SOC 6203. Social Psychology A survey of major theoretical approaches in social psychology, with an emphasis on communication and social interaction.

SOC 6213. Sociology of Education The study of schools as social systems in a social environment.

SOC 6223. Urban Sociology Advanced issues in urban structure, ecology, planning, populations, and role in region and nation.

SOC 6243. Social Theory Intensive examination of the context, content and contributions of sociological thinkers up to the early 20th century.

SOC 6253. Rural Sociology Multidimensional research into of the range of rural places, people, institutions, cultures, economies and change with a focus on the United States and Arkansas.

SOC 6263. Terrorism as a Social Movement In-depth analysis of domestic and international terrorism, including the history of terrorism. Philosophical and religious ideologies justifying terrorism, the social, political, economic, psychological and legal impacts of terrorism. Terrorist groups motives, and tactics, and methods of counter terrorism.

SOC 6273. Social Organization In-depth analysis of concepts and principles of social organization and disorganization and the disruptive effects of social and cultural dynamics upon the individual, family, community, nations, and world.

SOC 6303. Contemporary Sociological Theory A critical examination of significant contemporary sociological theories. Analysis of the relation between theoretical development and current research emphasis. Prerequisite, SOC 4243 or SOC 6243.

SOC 6323. Applied Research Advanced techniques for analyzing social science data using the Statistical Package for the Social Sciences and other data analysis systems. Prerequisites, SOC 3383 and SOC 4293.

SOC 6343. Methods of Social Research An examination of the logic of scientific inquiry and some commonly used research techniques in sociology with applications to selected examples of sociological research. Crosslisted as CRIM 6343.

SOC 6353. Qualitative Methods of Social Research An introduction to the use of intensive interviewing, participant observation, narrative analyses, and related ethnographic techniques in sociological research.

SOC 6363. Environmental Sociology Advanced analysis of the social construction of attitudes toward nature and the environment and of actions to reduce humans' ecological footprint. Prerequisite, instructor permission.

SOC 6373. Sustainable Developments in Modern Society In-depth treatment of issues in sustainable development, such as development paradigms, human-environment interactions, and politics on local, national, and international scales. Prerequisite, instructor permission.

SOC 6383. Advanced Data Analysis Assumptions, principles, and applications of ordinary least squares and logistic regression techniques including the basic model, dummy variables, and special functional forms. Emphasis on data acquisition, management, analysis, and report writing in sociological practice. Prerequisite, SOC 3383 or equivalent (PSY 3103, STAT 3233, ECON 2113, POSC 3003). Crosslisted as CRIM 6383.

SOC 6413. Seminar in the Family This course is oriented toward contemporary theory and research dealing with family structure and change.

SOC 6423. Seminar in Race, Gender and Class Introduce perspectives, methods, concepts and general findings of sociologists as they apply to race, gender and class. Application of sociological framework to analyze social difference, inequality, power, and resistance.

SOC 6433. Sociology of Aging Intensive treatment of theories, methodologies, concepts and major research findings regarding the aging of individuals and societies, using the U.S. as a central example.

SOC 6443. Geographic Information Systems for the Social Sciences Advanced analysis of social and environmental geographic data, including geographic data, maps, and applied geographic analysis.

SOC 6453. Sociology of Youth Subcultures Advanced study of youth subcultures from American, British, and new sub cultural perspectives, plus a range of historical and contemporary youth subcultures. Topics include: identity, resistance, style, music, and consumption.

SOC 6653. Special Topics Advanced study in a particular area of sociological inquiry. Topic varies. May be repeated for credit when topic changes.

SOC 670V. Thesis

SOC 680V. Independent Study

DEPARTMENT OF ENGLISH AND PHILOSOPHY

Methods and Materials Teaching English (EDEN)

EDEN 5553. Methods and Materials for Teaching English in the Secondary School The study of models of teaching and instruction and of assumptions underlying current teaching-learning practices for English in secondary schools. Opportunities to develop skills and strategies for teaching language, literature, and composition to culturally diverse students.

English (ENG)

- ENG 5023. Advanced Creative Writing** A workshop in writing poetry, fiction, or drama. (By instructor permission.)
- ENG 5083. Introduction to Linguistics** A study of phonetics, phonemics, morphology, syntax, and semantics.
- ENG 5113. Genre Studies: Tragedy, Comedy, Romance, or Epic** Studies in one of four genres in all its formal aspects and changing manifestations in literature, including fiction, drama, and poetry.
- ENG 5183. Renaissance Drama Excluding Shakespeare** Familiarizes the student with the contemporaries of Shakespeare in the Elizabethan/Jacobean theatre. Some familiarity with Shakespeare helpful, but not essential.
- ENG 5213. Medieval Literature** A study of English literature during the Middle Ages. Selected continental writings may be included.
- ENG 5233. Sixteenth-Century Literature** English literature during the sixteenth century. Selected continental writings may be included.
- ENG 5243. Seventeenth-Century Literature** English literature during the seventeenth century. Selected continental writings may be included.
- ENG 5253. Restoration and Neoclassical Literature** A study of English literature during the late seventeenth and eighteenth centuries. Selected continental writings may be included.
- ENG 5263. Romantic Literature** A study of major currents and figures of the English Romantic movement. Selected background writings may be included.
- ENG 5273. Victorian Literature** A study of major currents and figures in the Victorian Age. Selected background writings may be included.
- ENG 5283. Modern British Literature** English literature in the twentieth century. Selected background writings may be included.
- ENG 5333. American Romanticism** American literature from 1820 to 1865.
- ENG 5353. American Realism and Naturalism** A study of American literature in the last half of the nineteenth century and the early twentieth century.
- ENG 5373. Modern American Literature** American literature since World War I.
- ENG 5383. Multi-Ethnic American Literature** African American, Asian American, Latino American, Native American, and/or ethnically specific Euro-American literary works.
- ENG 5443. Studies in Literature of the Fantastic** Selected topics in fantasy, science fiction, the fantastic, and related genres. May be repeated when topic changes. Dual listed as ENG 4443.
- ENG 5463. Special Topics** Intensive study of individual authors, limited periods, movements, or specific themes.
- ENG 5473. Women Writers** A study of literature written by women.
- ENG 5623. Mythology** An examination of the content, structure, and belief systems, of various mythologies from the perspective of selected mythographers.
- ENG 5633. Material Folk Culture** The analysis and interpretation of traditional skills, services, and art/craft objects provided in folk societies. (Will not count for English MA/MSE.)
- ENG 5711. Preceptorship in Writing Studies** Professional and pedagogical practices in the field of Writing Studies.
- ENG 6013. Composition Theory** Intensive study of composition theory using selected works of major composition and rhetorical theorists.

- ENG 6133. Methods of Literary Study** Development of skills in explication, library research, and the practice of criticism by studying one or more broad issues in literature. May be repeated once.
- ENG 6233. Shakespeare** An intensive study of selected works of Shakespeare.
- ENG 6253. Topics in British Literature** Intensive study of a theme, motif, pattern of images, or other significant feature of several works of British literature. Topic to be selected. May be repeated when topic changes.
- ENG 6263. British Authors to 1780** Intensive study of a major British author or group of related authors who flourished before 1780.
- ENG 6283. British Authors Since 1780** Intensive study of a major British author or group of related authors who flourished after 1780.
- ENG 6353. Topics in American Literature** Intensive study of a theme, motif, pattern of images, or other significant feature of several works of American literature. Topic to be selected. May be repeated when topic changes.
- ENG 6363. American Authors to 1865** Intensive study of a major American author or group of related authors who flourished through the Civil War.
- ENG 6383. American Authors Since 1865** Intensive study of a major American author or group of related authors who flourished after the Civil War.
- ENG 6453. Topics in World Literature** Intensive study of a theme, motif, pattern of images, or significant feature of several works of world literature. Topic to be selected. May be repeated once when topic changes.
- ENG 6533. Teaching Writing** A survey of theories and methods of teaching composition with special emphasis on practical applications in teaching writing at all levels.
- ENG 6563. Teaching Literature** A course in methods of teaching literature in the public schools and two-year colleges. Develops theories, rationales, strategies, and projects related to teaching literature.
- ENG 6613. Graduate Seminar** Intensive study of special issues related to literature and language such as folklore, genre theory, or the history of literary criticism. Topic to be selected. May be repeated once when topic changes.
- ENG 6623. Folklore** Intensive treatment of the concepts, theories, methods, materials, and history of folklore study.
- ENG 6713. Preceptorship in Teaching Composition** Professional and pedagogical practices in the teaching of composition. Prerequisite, ENG 5711.
- ENG 674V. Thesis**
- ENG 680V. Independent Study** (See department guidelines.)

Philosophy (PHIL)

- PHIL 5723. Aesthetics** An analysis of the nature of art, designed to help students respond intelligently to works of art.
- PHIL 5733. Environmental Ethics** An investigation of the ethical dimensions of environmental issues. Prerequisite, PHIL 1103.

Heritage Studies (HS)

- HS 7003. Introduction to Heritage Studies, Research, and Writing** This core class required for the Ph.D. program provides an introduction to important concepts and significant readings that delineate Heritage Studies. Also examined are resources for scholarly research and methods for effective writing.
- HS 7061. Heritage Studies Seminar** A graduate seminar/colloquium that examines and critiques trends, issues, and opportunities in the heritage professions through discussions of research and internship experiences; materials and methods; theory and practice; and events, regions, and individuals.
- HS 7103. Concepts of Culture** Seminar that examines the theoretical and methodological approaches to the study of culture of the disciplines within Heritage Studies through topics such as race, class, gender, region, religion, and issues of rural and urban life.
- HS 7113. Regional Culture: History of the Mississippi River Delta** A graduate seminar that examines the history and culture of the Mississippi River Delta. Areas of particular focus include the economic, political, and social development of the region from the era before European contact to the present.
- HS 7123. Management Issues in the Heritage Professions** A graduate seminar that examines management issues affecting the Heritage Professions. Specific emphasis is placed on planning for the preservation, preparation, and presentation of heritage to non-specialist or public audiences.
- HS 7133. Cultural Resource Methods** This course examines interrelationships between ethnography, field research, and the presentation of culture and history. Students learn field research methods and read ethnographic studies.
- HS 7203. Special Topics in Heritage Studies** Intensive consideration of interdisciplinary topics related to the field of Heritage Studies. Specific subject of seminar to be selected. May be repeated when topic changes.
- HS 7213. Research Seminar** A doctoral seminar that focuses on resources and concepts important to the development of independent scholarly work on a selected topic appropriate for the Heritage Studies Ph.D. program. The seminar provides extensive work with original research materials and intensive writing. May be repeated.
- HS 722V. Independent Study** Independent reading and/or research directed by faculty. Topics addressed through independent study will vary. May be repeated.
- HS 730V. Heritage Studies Internship** Off-campus or on-campus directed experience in public institutions such as museums, libraries and archives, historical societies and state parks, cultural tourist sites, community heritage programs, federal, state, and local agencies. A professional work experience directed by faculty and mentored by sponsors. Prerequisites, admission to the Ph.D. program or consent of faculty and sponsor. May be repeated.
- HS 731V. Research and Practicum Experience** Supervised research and professional work experience approved by the student's graduate advisor resulting in a report. Undertaken before completion of the comprehensive exam for either the master's degree or the doctoral degree in Heritage Studies. May be repeated.
- HS 889V. Dissertation**

DEPARTMENT OF HISTORY

History (HIST)

- HIST 5133. History of Ancient China** Ancient Chinese civilization from the founding of the Shang Dynasty (1766 B.C.) to the end of the Three Kingdoms Period (A.D. 280).

- HIST 5143. Rise of Modern China** Major developments in Chinese history with emphasis on the twentieth century.
- HIST 5213. History of England: 55 B.C. to A.D. 1689** The social, political, and ecclesiastical history of England from Julius Caesar's reconaissance to the Glorious Revolution.
- HIST 5223. History of Great Britain: 1688 to 1982** The social, political, economic and imperial history of Great Britain from the Glorious Revolution to the Falklands War.
- HIST 5273. History of Mexico** A survey emphasizing contemporary developments and relations with the United States.
- HIST 5303. The Idea of History** A study of the idea of history in its chronological, practical, and historiographical manifestations.
- HIST 5323. Management of Archives and Manuscripts** Management of archival collections in academic, public, and private institutions, including traditional and digital technologies for preservation and access, and current issues confronting archivists.
- HIST 5413. Colonial North America** Colonial development from Jamestown through the American Revolution.
- HIST 5423. Foundations of the American Republic, 1783-1850** A study of the major political and social developments between the Revolution and the Civil War.
- HIST 5453. United States Civil War and Reconstruction** An intensive study of the Civil War period and the resulting problems of Reconstruction.
- HIST 5463. U.S. Gilded Age/Progressive Era** Explores the dramatic economic, social, and political upheavals of 1880-1917.
- HIST 5473. U.S. Southern Women's History** Examines the history and changing status of women in the U.S. South from the 1400s to the present.
- HIST 5483. History of Sexuality in America** Forces which have shaped American beliefs and practices concerning sexuality, and the roles played by gender, race and class.
- HIST 5493. Cultural History of Comic Books in America** Overview of the history of comic books in America, examining them chronologically to identify the changes in the topics, characters, and subjects that reflect shifts in the cultural and social history of the nation. Dual listed as HIST 4493.
- HIST 5513. Museum Collections Management** An overview of the management and preservation of material culture in museums. Policy development, documentation, and care of collections are broad topic areas.
- HIST 5553. History of Medicine** Worldwide survey of medicine, disease, and health from prehistoric times to the present.
- HIST 5613. Seminar in Global History** Intensive research seminar examining major questions in global history. May be repeated for credit with different subtitle.
- HIST 5713. Computers in the Social Studies Classroom** Experience in evaluating, creating and using history websites and software, and developing computer presentation skills for the social studies classroom. No prerequisites.
- HIST 6003. Introduction to Graduate Study of History** Introduction to graduate-level history, covering fundamental research skills needed for graduate work and an overview of the study of historiography.
- HIST 6213. The Practice of History** An experiential study of historical scholarship — research, writing, and criticism.
- HIST 622V. Internship in Public History** Practical experience with public agencies or private businesses in history-related subjects.
- HIST 623V. Capstone Project in Public History** The capstone project combines the knowledge skills obtained in previous coursework and allows the students to conceive, develop, and produce a public history project with a partner institution.

- HIST 6253. Graduate Readings Seminar** An in-depth look at the historical literature on a specific topic; content varies and the course may be repeated for credit.
- HIST 6263. Graduate Research Seminar** Closely guided examination of a body of documentary evidence, leading to a major research paper based on primary sources; content varies and the course may be repeated for credit.
- HIST 6273. Special Topics in World History** (May be repeated for credit with different subtitle.)
- HIST 6283. Special Topics in American History** (May be repeated for credit with different subtitle.)
- HIST 6293. Special Topics in History Education** Studies in select topics in history education. May be repeated for credit with different subtitle.
- HIST 630V. Thesis**
- HIST 6313. Introduction to Public History** Introductory overview of the field of public history, including areas of specialization such as archival management, museum work, oral history and folklore, historic preservation, and public parks.
- HIST 6323. Historic Preservation** Practical introduction to preservation of historic buildings, sites, and districts; surveys the history of the preservation movement, federal and state law and policy, the economics of preservation projects, and a variety of historic sites in the surrounding region.
- HIST 6333. Seminar in Arkansas Studies** Intensive research seminar covering various aspects of Arkansas history.
- HIST 6343. Historic Preservation Field School** A historic preservation field project that will allow students to gain hands-on experience. The project will include archival research and supervised field investigations to examine a specific type of historic resource.
- HIST 6363. American Architectural History** Examination of the development of American architecture in the context of the social, cultural, and economic history of the nation from pre-European settlement to the present.
- HIST 6403. Studies in African-American History** This course will focus on the reading, analysis, and research of primary sources dealing with the African-American experience. (May be repeated for credit with different subtitle.)
- HIST 6413. American Regional History** Studies in the history of select American regions. (May be repeated for credit with different subtitle.)
- HIST 6433. American Cultural and Social History** Studies in select cultural and social topics in American history. (May be repeated for credit with different subtitle.)
- HIST 6443. American Groups in Conflict** Studies in the history of select American groups. (May be repeated for credit with different subtitle.)
- HIST 6453. American Period Studies** Studies in select periods of American history. (May be repeated for credit with different subtitle.)
- HIST 6513. Theory and Practice of Global History** Theoretical and practical issues facing teachers and practitioners of global history.
- HIST 6523. Africa, Slavery, and World History** Africa's role in larger global historical processes as a result of the slave trade.
- HIST 6533. Indian Ocean World Since 1100** The Indian Ocean as a coherent unit of historical study, the sources and extent of this unity, and several explanations for its decline.
- HIST 6553. Black Death in Global Perspective** Research seminar on the history and historiography of the great 14th-century pandemic, seen from a global perspective.
- HIST 6613. Studies in Civilization** Studies in the history of civilization before modern times. (May be repeated for credit with different subtitle.)

- HIST 6623. European History** Studies in select topics in the history of Europe. (May be repeated for credit with different subtitle.)
- HIST 6633. Eurasian History** Studies in select topics in the history of Eastern Europe, Russia, and the Eurasian Plain. (May be repeated for credit with different subtitle.)
- HIST 6653. Asian History** Studies in select topics in the history of Asia. (May be repeated for credit with different subtitle.)
- HIST 6673. Teaching College Level History** Methods and strategies for teaching American and World history survey courses at the community college and university level.
- HIST 6763. Public History Seminar** This course will examine the philosophical, ethical, and practical aspects of applying the historians craft and training outside the classroom.
- HIST 680V. Independent Study**

Methods and Materials Teaching Social Studies (EDSS)

- EDSS 5603. Methods and Materials for Teaching Social Studies in the Secondary School** Historical and current trends in teaching social studies at the secondary school level. Major emphasis on content and concept development and their application in the social studies classroom. Practice in writing objectives, applying teaching techniques, and formulating student evaluations.
- EDSS 6103. MSE Social Science Capstone Portfolio** Final course for MSE Social Science students featuring the creation of an advanced teaching and technology portfolio aligned with the National Council for the Social Studies pedagogical and thematic standards. Restricted to MSE Social Science students. Prerequisite, Instructor permission.

SCHOOL OF MEDIA AND JOURNALISM

Media (MDIA)

- MDIA 5023. Public Opinion Propaganda and the Mass Media** Survey of public opinion formation and change, with special attention to the role of the mass media in the creation and use of public opinion and propaganda.
- MDIA 5043. Studies in Newspaper Management** Study of business and editorial management of the print media, including newspaper organization, publishing policies and economics, print media technology, circulation and promotion problems.
- MDIA 5053. Public Affairs Reporting** Instruction and practice in gathering material and writing stories on public affairs; emphasis on courts and government. Requires two hours of laboratory work per week.
- MDIA 5083. Sports, Business and Opinion Writing** Techniques of news-writing and information gathering in business and sports reporting. Techniques of opinion writing. Prerequisites, "C" or better in MDIA 2013; or instructor permission.
- MDIA 5313. Multimedia Reporting** Apply the basics of traditional journalism skills in the digital media practice and develop the abilities of integrating audio, photographs, graphics and video as multimedia storytelling tools to enrich online news coverage. Prerequisite, basic computer competency.
- MDIA 5323. Diversity and Media** Survey of the diversity of American race, gender and the mass media in the United States.
- MDIA 5333. Trending Topics** A seminar that addresses current topics in the area of communication.

- MDIA 5343. News Production and Performance** Experience in producing news programs. Students exercise judgment and make editorial decisions about news content and program continuity. Experience in verbal and non-verbal communication relative to on camera delivery.
- MDIA 5363. Multimedia Storytelling** Introductory course in multimedia concepts, media elements, platforms, and production. Emphasis is placed on delivery of content across media platforms for diverse audiences.
- MDIA 5373. Internet Communications** Provides students with a thorough understanding and practice in the use of the Information Superhighway. Students will develop skills and strategies to access and create news, advertising, and public relations messages in this new electronic medium for mass communications. The course will also look at new opportunities for communications professionals, examine critical social, political, and economic issues for the medium, and prepare for future technological advances. Prerequisite, basic computer competency.
- MDIA 5573. Sportscasting** Theory and practical application of sportscasting for radio and television.
- MDIA 5913. Media Advisers Seminar** To provide an overview of the issues and practices of scholastic journalism, and to enable secondary school journalism advisers to acquire and refine skills in writing, reporting, and design.
- MDIA 6023. Advanced Studies in Broadcast Management** An advanced study of the elements, problems, and responsibilities of radio and television station management.
- MDIA 6033. The Broadcast Documentary** This course provides for the graduate student in broadcasting an opportunity both to study the broadcast documentary, its structure and role, and to gain some hands-on practical experience in organizing, structuring, and producing this broadcast form.
- MDIA 6043. Theory of Mass Communications** Study of mass communications models, theory development, mass communications theories and theory relationships to research in mass communications.
- MDIA 6063. Interpretative Research Methods in Mass Communication** This course is intended to provide the student with the basic skills needed for understanding, rather than predicting or controlling, phenomena. Included will be discussion of and practice in basic phenomenological description, structural analysis, research interviewing, and qualitative research reporting. Corequisite, MDIA 6043.
- MDIA 6073. International Communication Seminar** Critical discussion and analyses of the social, cultural, economic, political, technological and institutional forces governing the exchange of mediated information across national frontiers.
- MDIA 6083. Journalism Seminar** Study of the press as an institution; its problems, role, content, effects, and responsibilities as a cultural force in society.
- MDIA 6163. Applied Research in Mass Communications** Guided research dealing with practical problems in mass communications. A primary outcome of the course will be a formal research paper acceptable for publication.
- MDIA 6223. Broadcasting Seminar** Topics include research in broadcasting, electronic media, or another area appropriate for advanced study and original research. The course topic coincides with the research needs of students and the expertise of the directing faculty members. Depending on the interests of participants and on the topic of the seminar, students may conduct research individually or may work together on research projects.
- MDIA 6263. Heritage Communicated Through Photography** Ethnographic research in Visual Communication focuses on the development and application of visual research methods used in communication. Students will learn through course lectures, readings and discussions as well as hands-on ethnographic fieldwork or survey-based research.
- MDIA 6303. Media, Heritage, and Cultural Identity** Course analyzes various forms of media to better understand how media contributes to cultural identity and heritage.

- MDIA 6423. Media Entrepreneurship** Students will focus on development of entrepreneurial products by taking an idea from conception to production completion while practicing aspects of management, financing, and entrepreneurship. Students will address communication industry dilemmas that address creative product development.
- MDIA 6433. Media Programming Strategies** Strategy and creative development of media offerings. Students will analyze a media market, develop programming options based on market data and initiate scheduling and promotion of such programming.
- MDIA 670V. Thesis**
- MDIA 671V. Project**
- MDIA 680V. Independent Study**

DEPARTMENT OF MUSIC

Music Education (MUED)

- MUED 5202. Methods and Materials for Teaching Jazz Band** Broad overview of materials, problem-solving techniques, teaching methods, and general information specific to jazz instruction with emphasis on public school jazz education. Restricted to Master of Music or Master of Music Education. Dual listed as MUED 4202. Prerequisite, instructor permission.
- MUED 5573. Methods and Materials for Teaching Concert Bands** Instrumental music programs overview, program organization, teaching methods and repertoire, ancillary concerns and job preparation.
- MUED 5623. Music in the Elementary School** The emphasis is placed on current philosophies and practices in curriculum planning for the elementary school. Non-music majors who have had some experience with classroom music may be accepted via instructor permission.
- MUED 5642. Piano Pedagogy** Prerequisite, Master's level piano performance or piano performance and pedagogy major, or non-major with the completion of the Piano Proficiency exam, or with instructor permission. Offer as needed. Emphasis on teaching piano to children from preschool through grade 12.
- MUED 5643. Methods and Materials for Teaching Vocal Music** An overview of the music curriculum K-12. Emphasis on teaching strategies incorporating cognitive, psychomotor and affective techniques appropriate to secondary school students in vocal music. Opportunities to develop behavioral objectives, demonstrations, plan rehearsals, observe public school music students, and more.
- MUED 5651. Instrument Repair** A laboratory approach to the maintenance and repair of wind instruments.
- MUED 612V. Pedagogy and Performance** The study of the literature and pedagogical techniques as related to performance. (May be repeated one time.)
- MUED 6433. Advanced Conducting** An advanced study of conducting techniques combined with practical score reading application. This course is for the experienced choral and/or instrumental conductor.
- MUED 6533. Research in Music Education** Students will develop a framework of research areas within music education by undertaking analytical reading and discussion of the major scholarly journals in the field. Additionally, students will learn the parameters involved in assessing and designing sound research practices.
- MUED 6613. Leadership in Contemporary Music Education** Students will examine current trends in music education including Arts advocacy and policy, standards-based education, inclusion, music program administration, and teacher and leadership characteristics. Furthermore, they will explore possible music education developments in coming years.

MUED 6623. Historical and Philosophical Foundations in Music Education Students will explore the historical roots of music education within society and specifically in Pre K-12 settings. Intertwined in this exploration will be a discussion on the major philosophies that have and continue to influence music education practices.

MUED 6632. Graduate Piano Pedagogy Emphasis on teaching Keyboard Skills classes for non-piano music majors, and teaching college non-piano music majors. Prerequisites, MUED 4642 or MUED 5642, and MUED 612V, or by instructor permission.

MUED 664V. Thesis

MUED 6662. Music Education Research Project This course is a culmination of the MME body of work for students not choosing the Thesis option. In consultation with music faculty advisors, a research topic is chosen that is meaningful to the music education profession. This capstone project should be of the highest professional quality, demonstrate breadth of competence and the growth achieved through MME degree coursework, and meet the rigorous scholarship demands of academia. Prerequisite, All MME coursework and any remediation(s) must be completed with a minimum grade of "B" in all coursework and a cumulative GPA of 3.0 as well as successful completion of comprehensive exams prior to course enrollment.

MUED 6653. Assessment and Statistics in Music Education This course introduces the various components of assessment in music education. Specifically, students will learn about the use of statistics and how they help measure and evaluate student learning within the preK-12 school music curriculum. Prerequisites, MUS 6212 Introduction to Research, Writing, and Bibliography in Music.

MUED 680V. Independent Study

Music (MUS)

MUS 5223. Graduate Piano Literature This is the graduate version of the current undergraduate course, MUS 4223. Prerequisite, Master's level piano major, or non-major with the completion of the Piano Proficiency exam.

MUS 5412. Form and Analysis Analysis of basic and larger forms of music. Additional requirements will consist of analysis of scores appropriate to the major performance area.

MUS 5422. Composition Electronic Media Original composition to include the writing of small musical forms. Emphasis on instruction in composing using synthesizers, samplers, and computers.

MUS 5503. Music History II A study of the music of the Renaissance, Baroque, and Classical eras. Additional requirements for graduate students will consist of a special project or paper concerning a specific composer or genre.

MUS 5512. Church Music A study of the music of the Christian Church with an emphasis on the historical and philosophical aspects.

MUS 5513. Music History III A study of the music of the Romantic era to the present. Additional requirements for graduate students will consist of a special project or paper concerning a specific composer or genre.

MUS 5553. Music History Seminar A seminar course on specific music history topics drawn from the medieval period through the 20th century.

MUS 5701. Improvisation III Advanced techniques of improvisation utilizing theory and performance. Restricted to Master of Music or Master of Music Education. Dual listed as MUS 4701. Prerequisite, instructor permission.

MUS 5732. Jazz Styles and Analysis In-depth survey and analysis of jazz styles and artists from 1917 to present. Restricted to Master of Music or Master of Music Education. Dual listed as MUS 4732. Prerequisite, instructor permission.

MUS 6131. Graduate Recital A full length formal recital with an accompanying scholarly document.

MUS 6141. Small Ensemble Performance ensembles of any instrumentation and/or vocal combination. Periodic tours possible. May be repeated for credit. Special course fees may apply.

MUS 6212. Introduction to Research, Writing, and Bibliography in Music An introduction to bibliography of music resources and its application in research and writing.

MUS 6222. Teaching and Learning Music Students will explore the combined academic fields of psychology, sociology, teaching methods, motivation, and developmental aspects within learning music. Students will benefit learning how music performance can be enhanced through understanding how people learn music.

MUS 6310. Wind Ensemble LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all graduate students by audition. The wind ensemble usually performs two scheduled concerts, with possible tours. Special course fees may apply. Large ensemble courses may be repeated.

MUS 6311. Wind Ensemble LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all graduate students by audition. The wind ensemble usually performs two scheduled concerts, with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit.

MUS 6320. Symphonic Winds LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all graduate students by audition. This group performs concerts with possible tours. Special course fees may apply. Large ensemble courses may be repeated.

MUS 6321. Symphonic Winds LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all graduate students by audition. This group performs concerts with possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit.

MUS 6330. Marching Band LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. This group performs at all home football games with possible travel to away games. Mandatory rehearsals held the week prior to registration. Special course fees may apply. Large ensemble courses may be repeated.

MUS 6331. Marching Band LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. This group performs at all home football games with possible travel to away games. Mandatory rehearsals held the week prior to registration. Special course fees may apply. Large ensemble courses may be repeated for credit.

MUS 6340. Jazz Ensemble SMALL ENSEMBLES. A performing ensemble designed to study a wide variety of jazz music including swing, progressive, modern, and rock styles. Periodic tours. Membership by audition only. Special course fees may apply. May be repeated.

MUS 6341. Jazz Ensemble SMALL ENSEMBLES. A performing ensemble designed to study a wide variety of jazz music including swing, progressive, modern, and rock styles. Periodic tours. Membership by audition only. Special course fees may apply. May be repeated for credit.

MUS 6351. Concert Choir LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit.

MUS 6360. Jonesboro Chorale LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated.

MUS 6361. Jonesboro Chorale Open to all graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit.

MUS 6370. Concert Band Open to all graduate students. This group performs concerts with possible tours. Special course fees may apply.

MUS 6371. Concert Band Open to all graduate students. This group performs concerts with possible tours. Special course fees may apply.

MUS 6423. Graduate Theory II Styles, forms, and compositional techniques of the Classic, Romantic, and Twentieth Century periods examined through parametric analysis.

- MUS 6433. Advanced Conducting** An advanced study of conducting techniques combined with practical score reading application. This course is for the experienced choral and/or instrumental conductor.
- MUS 6443. Analytical Procedures** Methods of stylistic and formal analysis including Schenkerian, serialism, and set theory approaches.
- MUS 6453. Special Topics in Music Analysis** In-depth seminar focusing on selected music analysis topics.
- MUS 6471. Opera Production** A course in the study and performance of selected opera literature. Emphasis placed on directing and production. Special course fees may apply.
- MUS 6480. Orchestra** Open to all graduate students by audition. This group performs concerts of orchestral music with possible tours. Special course fees may apply.
- MUS 6481. Orchestra** Open to all graduate students by audition. This group performs concerts of orchestral music with possible tours. Special course fees may apply.
- MUS 6513. Symphonic and Chamber Literature** A study of the development in style, form, structure, and instrumental techniques in symphonic and chamber music extending from its beginnings to the twenty-first century.
- MUS 6523. Choral and Opera Literature** A study of the development in style, form, structures, and techniques in choral music from the medieval period to the present and in opera music from the sixteenth through the twenty-first centuries.
- MUS 6533. Research Techniques** A study of research procedures in music and of the bibliography of print and digital music resources, and their application to research and writing.
- MUS 6630. Scarlet Voices** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all treble-voiced graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated.
- MUS 6631. Scarlet Voices** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all treble-voiced graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit.
- MUS 6640. Singing Statesmen** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all lower-voiced graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated.
- MUS 6641. Singing Statesmen** LARGE ENSEMBLES CHORAL AND INSTRUMENTAL. Open to all lower-voiced graduate students by audition. Scheduled concerts and possible tours. Special course fees may apply. Large ensemble courses may be repeated for credit.
- MUS 6662. Music Education Research Project** This course is a culmination of the MME body of work for students not choosing the Thesis option. In consultation with music faculty advisors, a research topic is chosen that is meaningful to the music education profession. This capstone project should be of the highest professional quality, demonstrate breadth of competence and the growth achieved through MME degree coursework, and meet the rigorous scholarship demands of academia. Prerequisite, All MME coursework and any remediation(s) must be completed with a minimum grade of "B" in all coursework and a cumulative GPA of 3.0 as well as successful completion of comprehensive exams prior to course enrollment.

MUS 680V. Independent Study

Music Performance (MUSP)

- MUSP 5151. Graduate Collaborative Piano** For advanced pianists. Instructor permission required. May be repeated for credit. One hour credit. One hour class per week, combination of master class/lecture. Five hours practice required. Special course fees may apply.
- MUSP 6111. Performance Applied Music** One hour credit. One half hour lesson per week. Five hours practice required. May be repeated for credit. Special course fees may apply. Fall, Spring.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

- MUSP 6112. Performance Applied Music** Two hours of credit. Two half hour lessons, or one 1 hour lesson per week. Ten hours practice required. May be repeated for credit. Special course fees may apply. Fall, Spring.
- MUSP 6113. Performance Applied Music** Three hours of credit. Two half hour lessons, or one 1 hour lesson per week. Fifteen hours practice required. Available only to Master of Music degree candidates. May be repeated for credit. Special course fees may apply. Fall, Spring.
- MUSP 6114. Performance Applied Music** Two half hour lessons or one hour lesson per week. Twenty hours practice required. Available only to Master of Music degree candidates. May be repeated for credit. Special course fees may apply.
- MUSP 6121. Pedagogy and Performance** The study of the literature and pedagogical techniques as related to performance. May be repeated for credit. Special course fees may apply.
- MUSP 6122. Pedagogy and Performance** The study of the literature and pedagogical techniques as related to performance. May be repeated for credit. Special course fees may apply.
- MUSP 6131. Graduate Recital** A full length formal recital with an accompanying scholarly document. Special course fees may apply.

DEPARTMENT OF POLITICAL SCIENCE

Political Science (POSC)

- POSC 5113. American Legislative Process** A study of the structure and organization of legislative bodies and a detailed study of legislative processes.
- POSC 5143. Public Opinion and Public Policy** The function of public opinion in political systems, and methods for revealing public preferences; with principal focus on the U.S. case.
- POSC 5163. Political Engagement** The modes and rates of political participation in the United States with an emphasis on the effects of gender, ethnicity, education and other factors.
- POSC 5313. International Organization** Development, structure, and politics of international organizations such as the United Nations.
- POSC 5213. Politics of the Former Soviet Lands** Government and politics of Russia and her neighbors, including the transition from communism and issues of war and peace between the republics of the former Soviet Union.
- POSC 5223. Middle Eastern Political Systems** Major Middle Eastern political systems, with concentration on their common characteristics and major differences.
- POSC 5233. Life Sex Death or Body Politics in Comparative Perspective** A cross-national study of policy and policy change with respect to state regulation of the body. Completion of POSC 6003 or instructor permission.
- POSC 5323. Foreign Policy Analysis** Theory, practice, and analysis of foreign policy, with a focus on the United States and an emphasis on contemporary issues and basic ideas governing American foreign policy. Dual-listed with POSC 4323.
- POSC 5453. Analysis of Contemporary Political Theory** An analytical and theoretical examination of one or more theoretical political issues of the 20th and 21st centuries. Topics of analysis may include democracy, justice, community, political ethics, multiculturalism, or the theories of a particular political philosopher or school of political philosophy. Content will vary.
- POSC 5533. Environmental Law and Administration** Overview of current environmental law, its administration and enforcement.
- POSC 6003. Techniques of Political and Public Administration Research** Develops a working knowledge of the substance of contemporary research in political science and public administration and of alternative research strategies and techniques of data analysis in contemporary research.

The bulletin can be accessed at <https://www.astate.edu/a/registrar/students/bulletins>

- POSC 6013. Advanced Political Analysis** Quantitative analysis of political phenomena, including research design and analysis, theory formation, hypotheses, analytical techniques, and advanced regression. Prerequisite, POSC 6003.
- POSC 6113. Intergovernmental Relations** A survey of federalism, grant-in-aid programs, and federal, state, local relations in the United States.
- POSC 6123. Urban Politics** An analysis of urban political processes and urban policy alternatives.
- POSC 6133. Seminar in Political Parties and Political Behavior** An analysis of selected aspects of American political parties and electoral behavior. May be repeated only once when topic changes.
- POSC 6143. Seminar in American Government and Politics** An examination of selected aspects of American governmental institutions and processes. May be repeated only once when topic changes.
- POSC 6153. The Supreme Court, Politics and Law** An analysis of the role of the Supreme Court as a political institution and its impact on public policy and the Constitution.
- POSC 6163. Political Organizations** Exploration of various forms of political organization in the United States, ranging from political parties to popular movements.
- POSC 6173. Environmental Policy Processes** Analysis of attitudes, values, processes and institutions that affect environmental policy and the environmental issues currently being faced at local, state, national and international levels.
- POSC 6213. Major Asian Political Systems** An examination of the political institutions of selected Asian countries.
- POSC 6223. Seminar in Comparative Politics** A review of the theory and method of comparative political study with an analysis of governmental institutions in Western and non-Western countries.
- POSC 6233. Seminar on Politics and Religion** Investigates variations in the extent to which, and the means by which, faith and faith institutions influence politics.
- POSC 6243. Political Violence** Study of theories relating to inter-state and intra-state violence and conflict including an analysis of contemporary empirical work on civil wars, inter-state wars, revolutions, coups, genocide, violent social movements, and state repression.
- POSC 6313. Contemporary International Relations** A study of contemporary international problems and issues as they are related to the foreign policies of major powers.
- POSC 6333. International Relations Theory** An in-depth examination of theories of international relations, such as realism, balance-of-power, pluralism, and globalism.
- POSC 6343. The Environment and World Politics** A study of the politics of the global environment, including disputes between industrialized countries and the Third World over population policies, deforestation, global warming, and use of the oceans.
- POSC 6413. Seminar in Political Theory** An examination of selected works of one or more major political philosophers.
- POSC 6423. Public Financial Management** Financial planning and management in local government.
- POSC 6433. Nonprofit Fundraising and Financial Management** Best practices, challenges and practical fundraising and financial management strategies for nonprofits.
- POSC 6443. Nonprofit Planning and Marketing** Strategic planning and marketing tools for nonprofits.
- POSC 6473. Strategic Planning, Policy and Management** Methods, elements and specific techniques of strategic planning, policy and management.
- POSC 6503. Managing Local Government** An analysis of how public administrators manage municipal government, with special reference to such topics as community and economic development, housing, recreation, public safety, waste disposal, etc.

- POSC 6513. Administrative Law** A study of the rules and procedures of bureaucratic organizations and their applications.
- POSC 6523. Decision Making** An examination of decision-making models for individuals, small groups, and large organizations in the public sector.
- POSC 6533. Public Policy Analysis and Evaluation** Provides a theoretical and technical framework for understanding the fundamentals of policy analysis and evaluation.
- POSC 6543. Administrative Behavior** An examination of administrative structures and patterns of behavior in public sector organizations.
- POSC 6553. Public Budgeting and Finance** A study of political processes and administrative methods associated with governmental revenues, expenditures, and fiscal control of public organizations.
- POSC 6563. Seminar in Public Administration** An examination of the development of public administration as a profession; its history, political environment, ethics, and its method.
- POSC 6573. Grant Writing and Administration** Emphasis is placed on a step-by-step process through all stages of writing successful proposals and on providing technical expertise and knowledge through campus outreach efforts of faculty and students to strengthen the nonprofit and nongovernmental organizations that serve the local communities.
- POSC 6593. Seminar in Human Resources Management** An examination of policies, procedures, strategies, laws and regulations implemented in human resources management for public and nonprofit organizations.
- POSC 6603. Internship in Public Administration** A student work experience in a public or nonprofit organization.
- POSC 6613. Administrative Leadership** A study of the techniques and practices that successful managers employ to get their work done through politicians, subordinates, and citizens. Emphasis is placed on issues that are faced by first time managers.
- POSC 6623. Administrative Ethics** An analysis of the theoretical, philosophical, and practical tools needed for making appropriate decisions in the role of an administrator in a public or nonprofit organization.
- POSC 6643. Nonprofit Management** Overview of both the practical and theoretical principles utilized in leading nonprofit organizations. Specific attention given to the use engaging techniques to examine the areas of managing people, finance, technology, fundraising, marketing, and board/volunteer development from the nonprofit perspective.
- POSC 6653. MPA Capstone Experience** Designed for students to construct a professional portfolio to showcase, in a single document, the skills, competencies, and knowledge they have developed over their time in the MPA program. Registration will be restricted to students in their final enrollment term in the MPA program.
- POSC 665V. Thesis**
- POSC 680V. Independent Study**

DEPARTMENT OF WORLD LANGUAGES AND CULTURES

French (FR)

- FR 5503. Special Topics** Advanced study in a genre, movement, author, culture or other specialized topics. May be repeated when topic changes. Prerequisite, instructor permission.
- FR 680V. Independent Study**

Spanish (SPAN)

SPAN 5503. Special Topics Intensive study of a theme, motif, literary movement, genre, author, or a significant feature of several works of Spanish literature. May be repeated when topic changes. Prerequisite, SPAN 3413 or instructor permission.

SPAN 680V. Independent Study

College of Nursing and Health Professions

Athletic Training (AT)

AT 5103. Emergency Management of Injury and Illness Students will learn to recognize the signs and symptoms of acute injury and illness, assess patients using evidence-based methods, apply appropriate treatments, make appropriate referral decisions, and implement effective prevention strategies to reduce the risk of injury and illness. Restricted to Master of Athletic Training.

AT 5203. Athletic Training Techniques Serves as an introduction to athletic training practice. Emphasis on the prevention, care, and management of acute injuries and illnesses, as well as risk management, and protective taping and equipment. Restricted to Master of Athletic Training.

AT 5303. Gross Anatomy Regional approach to the musculoskeletal, peripheral nervous, and circulatory systems of the human body. Laboratories reinforce the lectures by a study of osteology, prosected cadavers and live anatomy palpations. Restricted to Master of Athletic Training.

AT 5403. Principles of Evidence Based Practice Develops skills for evidence-based practitioners in health care. Students will develop the skills necessary to critically review and use evidence in the field of athletic training. Restricted to Master of Athletic Training.

AT 5503. Clinical Education in Athletic Training I Builds on skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. This is the first in the series of four clinical courses. Restricted to Master of Athletic Training.

AT 5513. Clinical Education in Athletic Training II Expands on skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. Second in the series of four clinical courses. Restricted to Master of Athletic Training.

AT 5606. Orthopedic Assessment Provides a study of anatomy and physiology, assessment, evaluation techniques, treatment, and management of conditions affecting the lower extremities, upper extremity, and spine. Prerequisites, AT 5103 and AT 5203.

AT 5703. Therapeutic Interventions I: Therapeutic Modalities Physiology, indications, contraindications, and the application of therapeutic modalities for athletic injuries. Restricted to Master of Athletic Training.

AT 5713. Therapeutic Interventions II: Therapeutic Exercise Theories and application methods of comprehensive therapeutic exercise programs for injuries commonly sustained by the physically active. Restricted to Master of Athletic Training.

AT 5723. Therapeutic Interventions III: Therapeutic Rehabilitation and Manual Therapies Theories and application methods of comprehensive therapeutic rehabilitation programs for injuries commonly sustained by the physically active and manual therapy techniques for athletic injuries. Restricted to Master of Athletic Training.

AT 5804. Pharmacology and Nutritional Considerations in Athletic Training Exploration of the pharmaceutical and nutritional factors related to sport performance, injury prevention, therapeutic interventions and patient education. Prerequisites: AT 5103 and AT 5203. Fall.

AT 6103. Medical Assessment Examines the recognition, assessment, and management of general medical conditions and illnesses. Restricted to Master of Athletic Training.

- AT 6403. Athletic Training and Healthcare Administration** Explores leadership, organization, administration, and legal issues in athletic training. Topics include leadership; insurance; ethics; professional development; the planning, organization, operations, and assessment of athletic training programming and facilities. Fiscal and risk management will also be examined. Restricted to Master of Athletic Training.
- AT 6506. Clinical Education in Athletic Training III** Expands on skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. Third in the series of four clinical courses. Restricted to Master of Athletic Training. Prerequisites, AT 5513. Fall.
- AT 6514. Clinical Education in Athletic Training IV** Expands on skills previously acquired and introduces new skills related to current coursework. Students will be assigned to a clinical education rotation under the direct supervision of a clinical preceptor. Restricted to Master of Athletic Training. Prerequisite, AT 6506. Spring.
- AT 6802. Seminar in Athletic Training** In this course, students will examine current event and research topics relating to athletic training in depth as they prepare for a transition to professional practice, BOC examination, and their research project. Restricted to Master of Athletic Training.
- AT 6803. Psychology of Sport and Injury** Through the usage of both real and hypothetical case studies, the course will examine the field of sport/performance psychology and its role in the broader field of sports medicine. Restricted to Master of Athletic Training.
- AT 6812. Athletic Training Capstone** In this capstone course in the final semester, This course involves supervised development of a one-semester scholarly project that synthesizes the student's educational and clinical experiences obtained while matriculating through the MAT program. Restricted to Master of Athletic Training.
- AT 6903. Clinical Decision Making in Athletic Training** A capstone course designed for making models for clinical reasoning and decision making; factors influencing clinical decisions; management of complex patient problems. Restricted to Master of Athletic Training.

Communication Disorders (CD)

- CD 5063. Multicultural Issues in Communication Disorders** A study of multicultural issues applicable to providing speech-language-hearing services. Nonbiased assessment and culturally relevant intervention procedures and strategies will be offered. Dual listed as CD 4063.
- CD 5254. Neurological Bases and Disorders of Human Communication** A survey of the normal structure and function of the nervous system in human communication and resulting disorders that occur due to neurological dysfunction.
- CD 5303. Language Intervention for Individuals with Mild Disabilities** Assessment procedures for evaluating language disorders and language intervention procedures for individuals with mild disabilities.
- CD 5403. Aural Rehabilitation** Methods of instruction in auditory training, speech reading, and hearing aid orientation.
- CD 5502. Advanced Manual Communication** An advanced course designed to continue development of basic language skills in American Sign Language and Signing Exact English. Prerequisite, permission of professor. Graduate enrollees will demonstrate research in communication with the deaf.
- CD 5553. Craniofacial Anomalies and Communication Disorders** A study of the speech, language, hearing, and swallowing disorders associated with cleft palate and other craniofacial syndromes.

- CD 5703. Articulation and Phonological Disorders** Principles and procedures for assessment, treatment, and facilitative techniques in disorders of articulation and phonology affecting various ages and cultures. Restricted to students in the Communication Disorders graduate program and/or post degree students completing deficiency requirements.
- CD 5751. Clinical Practice I** Stresses assessment, report writing, development of IEP and lesson plans. All students must complete this practicum under the supervision of ASU Speech and Hearing Center personnel. A minimum of 50 clock hours of clinical practice is required.
- CD 580V. Special Topics Workshop** A specifically designed series of learning experiences to enhance the professional capabilities of speech pathologists. Opportunity for participants to engage in meaningful learning activities and interact with recognized professionals in the field. Course can be repeated for credit.
- CD 6003. Experimental Phonetics** Study of the physical (acoustic), physiologic, and perceptual properties of the speech signal, its production and perception.
- CD 6053. Research in Communication Disorders** Study of problems and methods in communication disorders research. Critical examination of research design, procedures, and reporting of research studies in communication disorders.
- CD 6113. Fluency Disorders** A study of speech as a time related adaptive behavior. Discussion of various types of fluency disorders, their identification, assessment and intervention.
- CD 6153. Voice Disorders** Advanced study of voice anatomy and physiology; theories of voice production; voice disorders and pathologies and their treatment.
- CD 6203. Cleft Palate and Cerebral Palsy** Study of the speech, language, and hearing problems associated with these organic disorders.
- CD 6243. Motor Speech Disorders** A study of the clinical assessment and management of dysarthria, and apraxia of speech in adults and children.
- CD 6253. Aphasia** Study of models of language behavior. Evaluation of aphasic behavior and methods of rehabilitation. Neural anatomy and physiology underlying aphasic behavior examined.
- CD 6303. Augmentative and Alternative Communication** Theories, procedures, and materials for language intervention with individuals with moderate-profound disabilities. Alternative communication systems will be emphasized.
- CD 6353. Language Intervention for At-Risk Infants and Toddlers** The course explores language disorders associated with at-risk infants and toddlers as well as strategies for facilitating communication development to be implemented by professionals and family members. Prerequisite, CD 3303.
- CD 6363. Language and Learning Disorders** Study of the language demands encountered by school-age children, and the effects of language disorders on written language acquisition. Assessment and intervention will be emphasized.
- CD 6503. Intervention in Communication Disorders** Principles, methods, and procedures for providing clinical intervention to individuals with communication disorders.
- CD 6513. Advanced Aural Rehabilitation** Methods and procedures of complete hearing evaluation, hearing aid fitting, and aural rehabilitation.
- CD 6613. Pediatric Feeding** A comprehensive graduate level course on pediatric feeding and swallowing to provide learners with information on the anatomy-physiology of swallowing processes, the normal swallowing/feeding development, and strategies for the prevention, assessment, and management of children with difficulties feeding and/or swallowing.
- CD 6653. Contemporary Issues and Practices in Communication Disorders** A study of current issues which significantly impact the profession of communication disorders. These issues include, but are not limited to, best practices in service delivery for a variety of communication disorders, national health care reform, establishing a private practice, third party payment, and professional ethics.

- CD 6713. Swallowing Disorders** A study of the normal and disordered swallow (dysphagia). Emphasis on the clinical assessment and management of adult and pediatric swallowing and its disorders, from the perspective of a speech-language pathologist.
- CD 6743. Neurogenic Language and Associated Cognitive Disorders** An advanced study of language and associated cognitive behavior following neurologic pathology, from the perspective of a speech pathologist. Examination of the theoretical basis for the behaviors and their treatment. Includes detailed discussion of assessment and management strategies.
- CD 6761. Clinical Practice II** Stresses different types of intervention approaches and counting and charting responses. A minimum of 50 clock hours of clinical practice is required.
- CD 677V. Clinical Practice III** Stresses refinement of the clinical process and may include an internship in external settings to help in development of career goals. A minimum of 50 clock hours of clinical practice is required.
- CD 6787. Clinical Practice IV** Stresses refinement of the clinical process in an intensive internship setting. A minimum of 200 clock hours of clinical practice is required. Students can expect to obtain significantly more clock hours in this internship than the minimum requirement of 200. Completion of the internship as assigned by the clinic director is mandatory regardless of the date of completion of the minimum clock hour requirement.
- CD 680V. Independent Study**
- CD 689V. Thesis**

Disaster Preparedness & Emergency Management (DPEM)

- DPEM 5613. Radiological Emergencies** Students review, discuss information, and practice skills necessary to effectively respond to a radiological incident. Topics include Radiological Concepts, Radiological Response Team Operations, Commercial Nuclear Power Facilities, Plume Modeling, Radiological Instrumentation, and Personal Protective Equipment (PPE) and Decontamination.
- DPEM 6103. Health Care Issues And Policies Related To Disaster Preparedness And Emergency Management** Evaluates existing governmental and institutional policies related to disaster preparedness and emergency management (DPEM). Formulation, implementation and evaluation of policy will be discussed. Students will propose and develop one new policy related to DPEM.
- DPEM 6113. Theory Development In Disaster Preparedness And Emergency Management** Incorporates the process of theory development in disaster preparedness and emergency management to facilitate formation of a conceptual basis for advanced knowledge and practice. Includes the analysis of various models and case studies.
- DPEM 6123. Research Design And Methodologies In Disaster Preparedness And Emergency Management** Considers quantitative and qualitative research methods in disaster preparedness and emergency management (DPEM). Review of current research in the field will be conducted. The course culminates in a research proposal in DPEM.
- DPEM 6133. Ethics And Legal Considerations In Disaster Preparedness And Emergency Management** Probes national and international ethical and legal frameworks of disaster preparedness and emergency management. Course content includes human rights and injustices associated with disasters and other emergencies and codes of ethics in emergency management.
- DPEM 6143. Global Perspectives In Disaster Preparedness In Disaster Preparedness and Emergency Management** Evaluates disaster preparedness around the world including the economic, health, political, psychosocial, cultural and religious impact of current and major historical disasters.
- DPEM 6153. Crisis Communication In Disaster Preparedness And Emergency Management** Analyzes the private and public exchange of information before, during and after a disaster. Multiple communication strategies will be explored, including the use of social media.

- DPEM 6163. Managing Incidents In Disaster Preparedness And Emergency Management** Concentrates on the management of disasters. Emphasis will be placed on the National Incident Management System and the five pillars of emergency management: prevention, preparedness, mitigation, response and recovery. A practicum experience is included.
- DPEM 6213. Informatics In Disaster Preparedness And Emergency Management** Incorporates the use of telecommunications and technology to support response efforts during and after a disaster. Public health biosurveillance will be examined. Legal and ethical considerations in information technology will be analyzed.
- DPEM 6223. Epidemiology Of Disasters** Measurement of adverse health effects of natural and human disasters as well as factors contributing to those effects. Assesses needs of disaster-affected populations and then matches resources to prevent further adverse health effects. Evaluates program effectiveness and plans for contingencies.
- DPEM 6253. Multi-Agency Response In Disaster Preparedness And Emergency Management** Examines multi-agency response to disasters and other emergencies to include government agencies, non-government organizations and the private sector. Cooperation and collaboration among the agencies will be analyzed. Pre and post-disaster planning and mobilization of resources will be emphasized.
- DPEM 6263. Geographical Information Systems In Disaster Preparedness And Emergency Management** Utilizes geographic information systems (GIS) to support planning, response and recovery efforts during and after a disaster. Includes a laboratory experience in GIS.
- DPEM 6273. Vulnerable Populations In Disasters** Analyzes the effects of disaster on vulnerable populations. Conceptual frameworks and characteristics of vulnerable population will be utilized to determine preparedness, planning, mitigation, response and recovery during disasters for these groups of people.
- DPEM 6543. Pandemic Planning** Promotes knowledge and skills to effectively plan and prepare for a pandemic, culminating in a practical exercise. Steps for developing an effective planning and preparedness program and development of a pandemic annex are included.
- DPEM 6553. Leading Hospital Response To Mass Casualties** Prepares hospital leadership to utilize the Hospital Incident Command System (HICS). Integrates the community emergency response network with the operation of an Emergency Treatment Area (ETA). Includes hospital personnel as first responders during a Mass Casualty Incident involving patient contamination.
- DPEM 661V. Seminar Topics In Disaster Preparedness & Emergency Management** This course is discussion driven by current events related to disaster preparedness and emergency management. Discussion will focus on analysis of a current event, applicable research, historical events of similar significance and other emergency management issues in the news.
- DPEM 662V. Research Assistant/Practicum** Students will be assigned a mentor who is currently conducting research in disaster preparedness and emergency management. Students may enroll for one, two or three credits per semester.
- DPEM 6631. Disaster Preparedness And/Or Emergency Management Conference Presentation** Students develop, submit and present a poster or platform presentation at a disaster preparedness and/or emergency management conference. This will require coordination with the faculty of record prior to submitting abstract to conference planners.
- DPEM 6643. Practicum Experience** Students will work with an expert in disaster preparedness or emergency management. The mentor must be approved by the faculty. The student may suggest mentors or the faculty may assign a mentor.
- DPEM 665V. Final Project Internship in DPEM** Final Project Internship is one of three options students may choose to complete the six credit hours of the Final Project curriculum. Students choosing this option will complete 240 contact hours at an approved site related to disaster preparedness and emergency management.
- DPEM 667V. Final Project Research in DPEM** Final Project Research is one of three options students may choose to complete the six credit hours of the Final Project curriculum. Students choosing this option will complete a research project related to disaster preparedness and emergency management. Prerequisites, DPEM 6123 and instructor permission.

DPEM 668V. Final Project Thesis in DPEM Final Project Thesis is one of three options students may choose to complete the six credit hours of the Final Project curriculum. Students choosing this option will complete a thesis related to disaster preparedness and emergency management. Prerequisites, DPEM 6123 and instructor permission.

Health Information Management (HIM)

HIM 5123. Healthcare Information Systems A fundamental study of the primary systems used in Healthcare Informatics including: Electronic Health Records (EHRs), Healthcare Information Systems (HIS), Enterprise Systems, Data Repositories, Clinical Informatics, Revenue Cycle Systems, Imaging Systems, Health Information Exchanges (HIEs), Decision Support and Telemedicine.

HIM 5133. Healthcare Data Standards A review of standard nomenclatures, data standards and national protocols as they relate to Healthcare Information Systems. ICD-10, ICD-9, SNOWMED, CPT, HCPCS, HL-7, ANSI, WEDI, and other nationally and internationally recognized data protocols commonly used in U.S. Healthcare will be covered.

Health Professions (HP)

HP 5103. Patient Education: Teaching and Learning in Health Professions This course provides a framework for understanding the linkage between teaching and learning. Teaching strategies and methodologies that compare and contrast teacher centered versus patient-centered approaches are presented.

HP 5113. Leadership in Health Professions This course examines models of leadership, both historical and contemporary, and how these models can be applied in the health care setting.

HP 5233. Issues in Aging A multi-disciplinary course providing an introduction to the aging experience. We will examine the incidence and prevalence of aging, as well as, explore trends, social policy, economic factors and ageism.

HP 6013. Interdisciplinary Capstone - Aging Studies Provides the learner with an integrated, multidisciplinary approach to the study of aging and the opportunity to apply issues within the field of aging in a collaborative fashion. Topics investigated include the social, psychological, and physical perspectives of aging, administration issues, and health promotion.

HP 6022. Clinical Education Methods Provides the learner with an integrated, multidisciplinary approach to the study of clinical education and the opportunity to apply issues within the field of clinical education in a collaborative fashion.

HP 6023. Health Policy and Economic Issues This course will focus on the principles of health economics essential to understanding current trends in the health care field and the development and implementation of health policy.

HP 6033. Data Analysis in Health Professions This course addresses the theory and mechanics of data analysis related to basic and applied research in the health professions. The course includes the use of statistical analysis using computerized programs such as SPSS. Topics range from basic descriptive statistics to inferential analysis.

HP 6043. Measurement and Evaluation in Health Sciences This course presents the theories of evaluation as related to the student and the various educational activities. Types of evaluation, appropriate application, preparation, and scoring of evaluation instruments are all critical topics included in this course.

HP 6053. The Professorate The role and responsibilities of faculty in health education including how to access literature, improving teaching skills, correlate health research information, and maintain a balance between scholarship, service and teaching.

HP 6113. U.S. Health Care This course examines the American health care system in terms of how the system is constructed, how it is administered, how it is financed, and how the health care manager can effectively interact within the system.

HP 620V. Independent Study Student may select, with permission of their adviser and faculty supervision, an area for intensive study, practice or investigation related to their plan of study.

HP 6233. Aging in the Community Changing demographics will reshape the need, type, and amount of community resources and service delivery. The course highlights key federal, state, and local resources. The course links geriatric assessment, resource identification, eligibility and accessibility that facilitates aging in community.

HP 6313. Topics in Healthcare Management A survey of topics in the American healthcare system, providing an introductory understanding in the history of healthcare finance and delivery; ethics in the finance and delivery of healthcare; healthcare economics; healthcare stakeholders and policy-making; and healthcare marketing.

HP 6323. Healthcare Law and Quality Improvement A study of law and quality improvement in healthcare management that will consider an overview of the role and the primary regulation promulgated by public and private regulators of healthcare; and statistical process controls to improve the quality of healthcare services. Nursing administration students must take prior to enrollment in first clinical course.

HP 6333. Enrichment in Aging Through the study of enriched aging models, students will learn about common physiological, psychological and social evolutions that accompany the advancement of years and the factors that negatively impact or support quality of life and well-being.

HP 660V. Internship in Health Sciences This program is designed to provide a purposeful experience in settings appropriate to the student's graduate emphasis. This course provides comprehensive, independent practice experiences under the guidance of a faculty approved preceptor. Must be enrolled for subsequent semesters until completion of the internship (6 credits).

HP 670V. Thesis Completion of Thesis research under the direction of a faculty thesis adviser and committee. Must be enrolled in subsequent semesters until completion of thesis (6 credits).

Nursing (NURS)

NURS 5013. Health and Aging A multidisciplinary course addressing normal aging both physically and psychologically. Emphasis is on changes associated with aging, cognitive and mental impairment, and health promotion.

NURS 6001. Health Care Information Resources Designed to equip learner with the necessary attitudes and behaviors to effectively use current and emerging electronic information resources to facilitate provision of health care.

NURS 6003. Advanced Clinical Physiology Complex physiological processes in adults which occur with disease, adaptation, and therapeutic intervention. Must be taken prior to clinical nursing courses.

NURS 6013. Advanced Clinical Pharmacology Designed to provide a basis for making clinical decisions in the pharmacologic management of commonly-occurring health problems of primary care patients. Prerequisite, Undergraduate course in pharmacology; admission to the graduate nursing program; NURS 6003 or concurrent enrollment. NOTE: NP students are required to take the semester immediately prior to beginning clinical portion of NP option.

NURS 6023. Advanced Assessment and Diagnostic Evaluation Presents theoretical and clinical basis for comprehensive assessment and diagnosis in health care settings, including all age groups. Emphasis is on clinical decision-making, differentiation of normal from pathological findings, risk assessment screening, diagnostic testing and interpretation of findings. Prerequisites: [NOTE: NP students are required to take the semester immediately prior to beginning clinical portion of NP option]. Prerequisite for NA students is Registered Nurse admitted to Nurse Anesthesia Program.

NURS 6042. Technology and Equipment for Nurse Anesthesia The course focus is on equipment, monitoring, and technology related to perioperative anesthesia practice. Prerequisites, Registered Nurse admitted to Nurse Anesthesia program.

NURS 6043. Regional Anesthesia and Analgesia The course focus is on anatomy, pharmacology and anesthetic techniques of regional anesthetics and analgesia. Prerequisites, Registered Nurse admitted to Nurse Anesthesia program.

NURS 6103. Research Design and Methodology Analysis and critical evaluation of nursing research appropriate to the study of nursing phenomena. Students develop a research proposal. Prerequisite, Undergraduate research.

NURS 6113. Anesthesia Pharmacology I General principles of pharmacology, including pharmacokinetic and pharmacodynamics, classifications of drugs and clinical pharmacology in anesthetic practice. Focus is primarily on inhaled anesthetics, intravenous anesthetics, muscle relaxants/antagonists and local anesthetics. Prerequisites, Registered Nurse admitted to Nurse Anesthesia program.

NURS 6123. Anesthesia Pharmacology II The focus of this course is on the pharmacodynamics, pharmacokinetics, anaphylaxis and drug interactions of autonomic and cardiovascular drugs, CNS drugs, diuretics and herbal medicine used in perioperative anesthetic practice. Prerequisites, NURS 6113 and Registered Nurse admitted to Nurse Anesthesia program.

NURS 6203. Theory Development in Nursing Examines the process of theory development in nursing and facilitates formation of a conceptual basis for advanced knowledge and practice. Includes analysis of various models and their application to advanced clinical practice. Must be taken prior to clinical nursing courses except in Nurse Anesthesia program.

NURS 6213 AG ACNP Seminar I Provides research based theoretical and clinical foundation for specialization of Adult/Gerontology Acute Care Nurse Practitioner. Content includes diagnostic reasoning and management of complex acute and chronic health problems for adult and geriatric population. Emphasis on role and scope of practice, coordination and collaboration across health care settings, and information systems. Prerequisites, NURS 6203, NURS 6303, NURS 6402, NURS 6003, NURS 6013, NURS 6023; acceptance to AG ACNP Track. Pre- or co-requisite: NURS 6103. Co-requisite NURS 6214.

NURS 6214. AG ACNP Practicum I Clinical application of theoretical basis for management of complex adult and geriatric clients with chronic, acute, and critical illnesses in a variety of health care settings. Would prepare students to interpret diagnostic tests as well as performance and management of therapeutic and technologic interventions. Emphasis on collaboration with other members of the health care team. Prerequisites, NURS 6203, NURS 6303, NURS 6402, NURS 6003, NURS 6013, NURS 6023; acceptance to AG ACNP Track. Pre- or co-requisite: NURS 6103. Co-requisite NURS 6213.

NURS 6223. Anesthesia Anatomy, Physiology and Pathophysiology I Course focus is on the effects of anesthesia at the cellular level progressing to the advanced study of the cardiovascular, hematological and renal systems. Prerequisites, Registered Nurse admitted to Nurse Anesthesia program.

NURS 6233. Anesthesia Anatomy, Physiology and Pathophysiology II This course is a continuation of the advanced study of anatomy, physiology and pathophysiology with focus primarily on the respiratory, central nervous, endocrine and hepatic systems. Prerequisites, NURS 6223 and Registered Nurse admitted to Nurse Anesthesia program.

NURS 6243. Anesthesia Pharmacology III In-depth study of pharmacology of the cardiovascular, nervous, respiratory systems, and local anesthetics. Prerequisites, NURS 6123 and Registered Nurse admitted to Nurse Anesthesia program.

NURS 6253. Anesthesia Anatomy, Physiology and Pathophysiology III An in-depth concise study of anatomy, physiology and pathophysiology that is relevant to the perioperative anesthesia management. Prerequisites, NURS 6233 and Registered Nurse admitted to Nurse Anesthesia program.

NURS 6303. Health Care Issues and Policy Critical analysis of health care issues and policy which influence advanced nursing practice and the health care system.

NURS 6311. Clinical Practicum I Clinical activities include performing a complete anesthesia apparatus checkout, assembling basic drugs and monitors for an anesthetic, perioperative anesthesia assessment, formulating an anesthesia management plan for an ASI I patient, documentation, philosophy and ethical considerations in anesthesia practice. Prerequisite, Registered Nurse admitted to the Nurse Anesthesia program.

NURS 6313. Power, Politics and Influence This course will analyze and evaluate the implementation of roles and functions of nursing administrative executives and managers in health care organizations. Leadership strategies and evidence based decision making are included. Prerequisite, NURS 6303.

NURS 6322. Clinical Practicum II Clinical activities emphasize patient safety, monitoring and infection control. Residents have the opportunity to participate in the administration of anesthetics for patients requiring all types of anesthesia including pain management. Prerequisites, NURS 6311, NURS 6523, NURS 6113, NURS 6223, NURS 6042, NURS 6413, and Registered Nurse admitted to the Nurse Anesthesia program.

NURS 6323. Case Management Across the Care Continuum Methodology for evolving case management theory and techniques in changing health care environment. Principles of managed care are incorporated including utilization management and quality improvement techniques. Prerequisites, Admission to graduate study.

NURS 6333. Clinical Practicum III Clinical experience in a hospital setting will correlate with concepts taught in Advanced Principles of Anesthesia II and III. Residents will begin to develop expertise in the administration of all types of general and regional anesthesia including pain management to all types of patients. Prerequisites, NURS 6533, NURS 6123, NURS 6233, NURS 6043, NURS 6322, and Registered Nurse admitted to the Nurse Anesthesia program.

NURS 6346. Clinical Practicum IV Clinical experience in the clinical setting will correlate with concepts taught in Advanced Principles of Anesthesia III and IV. Residents begin to develop expertise in the administration of all types of general and regional anesthesia including pain managements to all types of patients. Prerequisites, NURS 6543, NURS 6333, and Registered Nurse admitted to the Nurse Anesthesia program.

NURS 6353. Budgeting and Financial Management This course will provide an understanding of theoretical and practical applications of healthcare economies and incorporate these concepts into nursing practice, nursing leadership and health care delivery. Emphasis is on financial planning, budgeting, and reimbursement. Nursing administration students must take prior to enrollment in first clinical course.

NURS 6363. AG ACNP Seminar II Expansion of research based theoretical and clinical foundation for specialization of Adult/Gerontology Acute Care Nurse Practitioner. Particular attention given to cultural considerations, and legal and ethical standards. Focus and health promotion and maintenance from adolescence to older adult. Emphasis on deliverance of high quality healthcare and patient outcomes. Prerequisites, NURS 6203, NURS 6303, NURS 6402, NURS 6003, NURS 6013, NURS 6023, NURS 6103, NURS 6214. Co-requisite NURS 6364.

NURS 6364. AG ACNP Practicum II Clinical application of theoretical basis for management of complex adult and geriatric clients with chronic, acute, and critical illnesses in a variety of health care settings. Emphasis on patient assessment and prioritization of treatments and interventions from hospital admission to discharge. Development and implementation of high quality care plans and adjustment of care based on specific patient outcomes and needs. Incorporation of legal and ethical practice standards. Emphasis on cultural awareness. Prerequisites, NURS 6203, NURS 6303, NURS 6402, NURS 6003, NURS 6013, NURS 6023, NURS 6103, NURS 6214. Co-requisite NURS 6363.

- NURS 6402. Professional Role Development in Advanced Nursing** The study of role development with an emphasis on role making, intra- and interdisciplinary communication and strategies for role implementation. Must be taken prior to, or concurrent with first clinical course.
- NURS 6413. Advanced Chemistry and Physics Related to Anesthesia** Principles of chemistry and physics related to anesthetic practice. Basic knowledge for administering safe, physiologic anesthetic, utilizing the machine and monitoring devices. Prerequisites, Registered Nurse admitted to the Nurse Anesthesia program.
- NURS 6423. Professional Aspects of Nurse Anesthesia** Focuses on professional roles and issues, changes in healthcare, and influence of CRNAs in the marketplace and policy arena. Prerequisites, Students enrolled in the Nurse Anesthesia program.
- NURS 6443. Advanced Adult-Gerontology Nursing I** Study of problems of adult populations including geriatric populations with acute illnesses. Emphasis on theories, models and concepts that facilitate recovery and return to optimal health. Prerequisites, NURS 6003, NURS 6013, NURS 6023, NURS 6203. Pre- or co-requisite: NURS 6103, NURS 6402.
- NURS 6453. Advanced Adult-Gerontology Nursing II** Study of problems with adult populations including geriatric populations with chronic illness. Emphasis on theories, models and concepts that facilitate maintenance of chronic health problems and contribute to quality of life. Prerequisites, NURS 6003, NURS 6013, NURS 6023, NURS 6203. Pre- or co-requisite: NURS 6103, NURS 6402.
- NURS 646V. Advanced Adult-Gerontology Nursing Practicum** Required practicum with application of theories, models, and concepts for acute and chronic health problems. Emphasis on evidence based interventions and measured nursing outcomes. Prerequisites, NURS 6003, NURS 6013, NURS 6023, NURS 6203. Pre- or corequisite: NURS 6103, NURS 6402, NURS 6443 or NURS 6453.
- NURS 6473. Advanced Adult-Gerontology Nursing Clinical Synthesis** Culminating clinical course for implementation of clinical nurse specialist role in an area of emphasis. Pre-requisites: NURS 6443, NURS 6453, completion of required clinical hours in NURS 646(1-6).
- NURS 6483. AG ACNP Seminar III** Focuses on research based complex care for specialization of Adult/Gerontology Acute Care Nurse Practitioner. Particular attention given to health care economics, palliative or end of life care, emergency therapeutics, and disaster management strategies. Prerequisites, NURS 6203, NURS 6303, NURS 6402, NURS 6003, NURS 6013, NURS 6023, NURS 6103, NURS 6214, NURS 6363, NURS 6364. Co-requisite NURS 6484.
- NURS 6484. AG ACNP Practicum III** Further clinical application of theoretical basis for management of complex adult and geriatric clients with chronic, acute, and critical illnesses in a variety of health care settings. Practicum experience in specialized areas of advanced practice. Prerequisites, NURS 6203, NURS 6303, NURS 6402, NURS 6003, NURS 6013, NURS 6023, NURS 6103, NURS 6214, NURS 6363, NURS 6364. Co-requisite NURS 6483.
- NURS 6513. FNP Clinical Management I** Study of theoretical and clinical bases for management of clients and families who are well or have minor health problems. Application of principles through case studies of clients across the lifespan. Prerequisites, NURS 6003, NURS 6013, NURS 6023, NURS 6203; acceptance to FNP track. Pre- or corequisite: NURS 6103, NURS 6402. Co-requisite: NURS 6514.
- NURS 6514. Clinical Management I Practicum** Clinical application of theoretical bases for management of clients and families who are well or have minor health problems. Prerequisites, NURS 6003, NURS 6013, NURS 6023, acceptance to FNP track, Pre or co-requisites NURS 6103, NURS 6402, Co-requisite NURS 6513.
- NURS 6523. Basic Principles of Anesthesia I** The study of basic principles of anesthesia techniques and procedures including perioperative assessment, formulation of anesthesia management plans, positioning, airway management, and orientation to safe use and care of equipment. Prerequisite, Registered Nurse admitted to the Nurse Anesthesia program.

- NURS 6533. Advanced Principles of Anesthesia I** Advanced principles of perioperative anesthetic management including anatomy, physiology, pathophysiology, pharmacology and techniques and procedures related to pediatrics, obstetrics, and geriatrics. Prerequisites, NURS 6523, NURS 6113, NURS 6042, NURS 6223, and Registered Nurse admitted to the Nurse Anesthesia program.
- NURS 6543. Advanced Principles of Anesthesia II** Advanced principles of anesthetic management including anatomy, physiology, pathophysiology, pharmacology and techniques and procedures related to cardiovascular, thoracic, head and neck, orthopedic and laser surgery. Prerequisites, NURS 6533, NURS 6123, NURS 6233, and Registered Nurse admitted to the Nurse Anesthesia program. Fall.
- NURS 6553. Advanced Principles of Anesthesia III** Advanced Principles of anesthetic management including anatomy, physiology, pathophysiology, pharmacology and techniques and procedures related trauma, burns and neurosurgical anesthetics. Prerequisites, NURS 6543 and NURS 6333 and Registered Nurse admitted to the Nurse Anesthesia program.
- NURS 6613. FNP Clinical Management II** The study of theoretical and clinical bases for management of clients and families who have minor or chronic health problems. Application of principles through case studies and development of protocols for clients across the lifespan. Prerequisites, NURS 6513, NURS 6514. Co-requisites, NURS 6614.
- NURS 6614. FNP Clinical Management II Practicum** The clinical application of theoretical bases for management of clients and families who have minor or chronic health problems. Pre-requisites: NURS 6402, NURS 6103, NURS 6514, NURS 6613. Pre- or co-requisite: NURS 6303.
- NURS 6623. Curriculum Development in Health Professions** This course explores curriculum development in health professions. Emphasis is on education and competency practice links. Prerequisite, admission to graduate study and instructor permission.
- NURS 6713. Practicum in Nursing Education** Experiential course in the role of nurse educator. Opportunity to apply models of teaching in classroom and clinical situations. Prerequisite, admission to graduate study and instructor permission. Corequisite, NURS 6762.
- NURS 6723. Synthesis Seminar I** A comprehensive review and synthesis of basic sciences, equipment, basic principles, advanced principles, and professional issues of nurse anesthesia practice. Prerequisites, NURS 6553, NURS 6736, and Registered Nurse admitted to the Nurse Anesthesia program. Fall.
- NURS 6736. Clinical Internship I** Clinical experience in clinical setting will correlate with concept taught in Synthesis Seminar I. Residents begin independent management of all types of general and regional anesthesia including pain management to patients undergoing all procedures with clinical instructors in consultation. Prerequisites, NURS 6553, NURS 6346, and Registered Nurse admitted to the Nurse Anesthesia program.
- NURS 6753. FNP Clinical Synthesis Seminar** Culminating course for analysis of application of nursing theory and research/role concepts, and exploration of issues specific to the role implementation, in family nurse practitioner practice. Final semester of enrollment. Pre-requisites: NURS 6613, NURS 6614. Concurrent enrollment in NURS 6814.
- NURS 6762. Applied Clinical Research and Role Seminar** Culminating course for analysis of clinical outcomes and roles in advanced practice with adult populations and/or nursing administration. Required professional paper. Prerequisites, NURS 6443, NURS 6453, completion of required clinical hours in NURS 646V (1-6) or will complete clinical hours in NURS 646V (1-6). Concurrent enrollment in NURS 6473, NURS 6713 or NURS 687V.
- NURS 6773. Synthesis Seminar II** A continuing comprehensive review and synthesis of anatomy, physiology, pharmacology, basic and advanced principles of anesthesia covering the full scope of anesthesia practice in preparation for the national qualification examination. Prerequisites, NURS 6723, NURS 6787, and Registered Nurse admitted to the Nurse Anesthesia program.
- NURS 6787. Clinical Internship II** Clinical experience in clinical setting will correlate with concept taught in Synthesis Seminar I. Residents begin independent management of all types of general and regional anesthesia including pain management to patients undergoing all procedures with clinical instructors in consultation. Prerequisites, NURS 6736, and Registered Nurse admitted to the Nurse Anesthesia program

- NURS 6797. Clinical Internship III** Clinical experience focus is on the perioperative anesthesia management of all categories of patients undergoing all types of surgery, utilizing all variety of anesthetic techniques in a variety of clinical settings. Emphasis will be on independent management of anesthesia with the instructor as a consultant. Prerequisites, NURS 6723, NURS 6787 and Registered Nurse admitted to Nurse Anesthesia program.
- NURS 6814. FNP Clinical Synthesis** Culminating clinical course for family nurse practitioner students. Includes intensive clinical practice with a preceptor. Final semester of enrollment. Concurrent enrollment in NURS 6753.
- NURS 682V. Independent Study**
- NURS 6833. The American Health Care System: Historical Perspectives** Focus on the development of scientific, professional medicine, nursing and other health care occupations. Emphasizes the interaction of various health issues and their effect on the social history of the United States.
- NURS 6843. Ethics of Health Care** This course examines the traditional and emerging roles of the health professional as an individual moral agent and as a moral participant in team decisions. Methods of rational moral deliberation based on ethical theories and principles will be applied to ethical dilemmas.
- NURS 6853. Teaching in Advanced Nursing Roles** Focuses on development of knowledge and skill in teaching clinical information in advanced practice roles. Designed for nurses involved in formal and informal teaching of nurses and patients. Prerequisite, Permission of professor.
- NURS 6863. Family Nursing: Advanced Interventions** Study of concepts, theories, and research in family nursing care. Emphasis placed on application and interventions in family development and problem situations. Prerequisite, admission to graduate study; permission of professor.
- NURS 687V. Healthcare Management Seminar** This capstone course in healthcare management utilizes management and leadership skills to develop practical, successful, and innovative solutions for problems in health care. Students focus on synthesizing theories, models, techniques and strategies to solve multi faceted problems in health care. Prerequisite, Admission into the Nurse Educator or Nurse Administrator Option-Certificate. Corequisite, NURS 6762.
- NURS 689V. Thesis Option** Learning opportunity to complete supervised research experience under direction of faculty thesis advisor and committee. Final semester of enrollment or must be enrolled in subsequent semesters until completion of thesis. Students considering doctoral education are strongly encouraged to select the thesis option. Students who select the thesis may substitute 3 semester hours of electives. Approval of instructor required.
- NURS 8003. Principles of Curriculum: Design, Instruction and Evaluation** The course provides philosophical underpinnings, goals and guidelines for the delivery of educational programs focusing on curriculum design, evaluation, and instruction. Restricted to DNP Nurse Anesthesia Program.
- NURS 8113. Theoretical Foundations for Doctor of Nursing Practice** Examination of processes underlying development of models and theories from nursing and health-related disciplines for practice. Analyze application in advanced practice to solve problems and improve outcomes. Theoretical knowledge from sciences is integrated with nursing science to guide APRN. Prerequisite: Admission to Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option.
- NURS 8123. Leadership, Policy and Healthcare Systems** Analyze leadership and organizational theories, evaluate health care delivery systems, and examine the role of the DNP in influencing policy in health care delivery, outcomes and professional nursing. Prerequisites, Admission to the Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option. Corequisites for the Post-Master DNP program option, NURS 8113.
- NURS 8133. Epidemiology for the DNP** Evolution and history of methods of epidemiology. Quantization of morbidity and mortality within populations. Overview of study design, data analysis, and inferences. Specific areas of acute and chronic disease epidemiology illustrate epidemiologic methods such as risk factor analysis, surveillance systems, and etiology of disease. Prerequisite, Admission to the Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option.

- NURS 8143. Healthcare Finance In Advanced Nursing** Provides advanced economic, financial, and business knowledge required for leadership in financial planning and decision making in healthcare delivery systems. Evidence based models of practice, financial frameworks and theory are applied to practice-level, system-wide problems, including inter- and intra-professional teams. Prerequisite, Admission to the Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option. Prerequisites for the Post-Masters DNP Program Option, NURS 8123; Corequisites for the Post-Masters DNP program option, NURS 8153.
- NURS 8153. Healthcare Informatics In Advanced Nursing** Examines the complexities involved in managing resources in our healthcare system. Students will learn to use management theory and informatics applications to increase efficiencies in various functional areas of healthcare services. Prerequisite, Admission to Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option. Prerequisites for the Post-Masters DNP program option, NURS 8113; Corequisites for the Post-Masters DNP Program Option, NURS 8143.
- NURS 8163. Principles of Healthcare Ethics & Genetics** Focuses on theories of ethics and implications for practice, including principles of genetics for individuals, families and populations at risk for genetic disorders. Topics in ethics and genetics are presented. Prerequisite, Admission to the Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option.
- NURS 8213. Translational Research I** This course provides the student with the foundation for the DNP evidence-based practice project. The emphasis of this course is on problem identification, information retrieval, critical appraisal, and synthesis of a body of evidence. Prerequisite, Admission to the Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option. Prerequisites for the Post-Masters DNP program option, NURS 8113, NURS 8123, NURS 8143, NURS 8153.
- NURS 8223. Translational Research II** This course focuses on translating evidence into practice, identifying practice outcomes, sustaining evidence-based practice changes, and creating an environment to support evidence-based practice. Prerequisite, Admission to the Post-Masters DNP Program Option or admission to the DNP in Nurse Anesthesia Program Option. Prerequisites for the Post-Masters DNP program option, NURS 8213; Corequisites for the Post-Masters DNP program option, NURS 8323.
- NURS 8235. Evidence-Based Practice Project** This course is a culmination of the two translational research courses for the DNP student. Students will implement an evidence-based practice project and analyze and disseminate the results of the project. Prerequisites for the Post-Masters DNP program option, NURS 8223; Corequisites for the Post-Masters DNP program option, NURS 8335.
- NURS 8314. Introduction to Clinical Internship** This course provides the student with practice opportunities that includes in-depth work with experts from nursing and other disciplines. During this first clinical internship course students will begin planning for implementation of the DNP project. Prerequisites for the Post-Masters DNP program option, NURS 8213; Corequisites for the Post-Masters DNP program option, NURS 8163.
- NURS 8323. Clinical Internship I** Building upon previous didactic courses this course is the second of three in a series that will provide clinical experiences culminating in a completed Residency Project. Prerequisites for the Post-Masters DNP program option, NURS 8314; Corequisites for the Post-Masters DNP program option, NURS 8223.
- NURS 8335. DNP Clinical Internship II** This is the third of three courses that builds upon previous didactic courses and will provide clinical experiences culminating in a completed Residency Project. Prerequisites for the Post-Masters DNP program option, NURS 8323; Corequisites for the Post-Masters DNP program option, NURS 8235.
- NURS 8403. Physical and Biophysical Sciences in Anesthesia Practice** The course focus is physical and biophysical scientific principles applicable to mechanical and human systems in safe anesthesia practice. Restricted to DNP Nurse Anesthesia Program.
- NURS 8413. Advanced Pharmacology I for Anesthesia Practice** The course provides detailed study of general pharmacological principles for medication-induced physiological functions in clinical drug therapy. The course focus is therapeutic decision-making in anesthesia practice. Restricted to DNP Nurse Anesthesia Program.

- NURS 8414. Advanced Clinical Anatomy for Anesthesia Practice** The course provides foundational histological and gross anatomical principles for the safe delivery of nurse anesthesia care. The course focus is application of anatomy through didactic and laboratory experiences. Restricted to DNP Nurse Anesthesia Program.
- NURS 8423. DNP Advanced Physiology and Pathophysiology I** The course provides a comprehensive study of normal and abnormal physiology on specific organ systems' functions. The course focus is normal and abnormal physiological alterations and their effect on homeostasis for health promotion and anesthetic care across the lifespan. Restricted to DNP Nurse Anesthesia Program.
- NURS 8424. Advanced Pharmacology II for Anesthesia Practice** The course provides detailed study of general pharmacological principles for anesthetic agents and adjuvant drugs in clinical anesthesia management. The course focus is therapeutic decision-making in anesthesia practice. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8413.
- NURS 8433. DNP Advanced Physiology and Pathophysiology II** The course provides a comprehensive study of normal and abnormal physiology of specific organ systems. The course focus is normal and abnormal physiological alterations' effect on homeostasis for health promotion and anesthetic care across the lifespan. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8423.
- NURS 8434. Principles of DNP Nurse Anesthesia Practice I** The course focus is anesthesia care delivery based on basic sciences, evidence-based practice and safety and quality's conceptual frameworks. Restricted to DNP Nurse Anesthesia Program. Prerequisites, NURS 8403 and NURS 8414.
- NURS 8444. Principles of DNP Nurse Anesthesia Practice II** The course focus is anesthesia care management for normal and abnormal physiology, and surgical and diagnostic interventions. Care management is based on basic sciences, evidence-based practice and safety and quality's conceptual frameworks. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8434.
- NURS 8451. Orientation to DNP Anesthesia Clinical Practice** The course applies theoretical knowledge based on basic sciences, evidence based practice, safety and quality's frameworks with experiential learning in a simulated clinical environment developing critical thinking, problem solving and psychomotor skills appropriate for the novice student. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8444.
- NURS 8454. Principles of DNP Nurse Anesthesia Practice III** The course focus is anesthesia management for normal and abnormal physiology, and surgical and diagnostic interventions in anesthesia and surgical specialty areas. Anesthesia management is based on basic sciences, evidence-based practice and safety and quality's conceptual frameworks. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8444.
- NURS 8508. DNP Anesthesia Practicum I** The course focus is anesthetic management KSAs in the patient with minimal to mild physiologic derangements (PS I and PS 2). Theoretical knowledge from basic sciences, evidence-based practice, safety and quality's frameworks is applied to practice. Restricted to DNP Nurse Anesthesia Program. Prerequisites, NURS 8451 and NURS 8454.
- NURS 8601. DNP Project Development** The course focus is refinement of sections that address the background, literature review and preparation for implementation reflecting the specialty focus of the student to meet individual student interests and career goals. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8223.
- NURS 861V. DNP Anesthesia Practicum II** The course focus is anesthetic management KSAs in patients with minimal to mild physiologic derangements with physical risk status (P1E, P2E, and P3). Theoretical knowledge from basic sciences, evidence-based practice, safety and quality's frameworks is applied to practice. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8508.
- NURS 8702. DNP Project Implementation** The focus of the course is to ensure project finding's reliability with evidence and the IRB approved proposal which reflects the specialty focus of the student to meet individual student interests and career goals. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8601.

- NURS 871V. DNP Anesthesia Practicum III** The course focus is anesthetic management KSAs in functionally incapacitated, moribund, and specialty surgery and anesthesia areas' patients (PS 3E, 4, & 5). Theoretical knowledge from basic sciences, evidence-based practice, safety and quality's frameworks is applied to practice. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 861V.
- NURS 8802. DNP Project Evaluation** The course focus is to conclude the project and disseminate the findings with guidance from faculty mentors. The project reflects the specialty focus of the student to meet individual student interests and career goals. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8702.
- NURS 8808. DNP Anesthesia Practicum IV** The course focus is anesthetic management KSAs in emergent, moribund, organ harvest and specialty surgery and anesthesia areas' patients (PS 4E, 5E, 6). Theoretical knowledge from basic sciences, evidence-based practice, safety and quality's frameworks is applied to practice. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 871V.
- NURS 891V. DNP Anesthesia Practicum V** The course focus is anesthetic management KSAs in patients across the lifespan and from specialty areas of anesthesia and surgery. Theoretical knowledge from basic sciences, evidence-based practice, safety and quality's frameworks is applied to practice. Restricted to DNP Nurse Anesthesia Program. Prerequisite, NURS 8808.

Nutritional and Dietetics (NS)

- NS 6003. Topics in Food Service** Course is discussion driven by current issues and events related to food service operations and management. Restricted to Nutrition and Dietetics graduate students. Prerequisites, NS 6253 and NS 6113.
- NS 6013. Management of Nutrition Services** Principles of management for professionals in food service operations and/or clinical nutrition services. Topics include management roles, tools, human resources, fiscal responsibilities and emerging administrative issues. Restricted to Nutrition and Dietetics graduate students. Prerequisites, HP 5113, NS 6263, NS 6303, and STAT 6833.
- NS 6103. Global Nutrition and Health** Examines the study of food and nutrition from a global perspective, including challenges and solutions for complex issues such as dietary behaviors, diet and diseases, and interventions to support food security and sustainable food systems.
- NS 6113. Food and Nutrition Public Policy** An in-depth look at U. S. food policies and programs that affect food production, distribution, and consumption. Examines the dynamics of policy making and the influence of food companies on strategic decisions that undermine the nation's health. Restricted to Nutrition and Dietetics graduate students.
- NS 6123. Health Care Delivery in the U. S.** Provides an overview of the nation's health care delivery system, including characteristics and challenges, with emphasis on the implications and opportunities for the Registered Dietitian Nutritionist (RDN), particularly related to payment structures for nutrition services. Restricted to Nutrition and Dietetics graduate students. Prerequisites, NS 6253 and 6113.
- NS 6203. Nutrition for the Older Adult** Addresses nutrition-related factors important for successful aging, including age-related physiologic changes, challenges with dietary intake, complications with chronic diseases, treatment of serious illness, and application of new research to promote healthy aging and maximize life span.
- NS 6213. The Obesity Epidemic** Explores the various determinants of obesity in adults and children, as well as assessment, treatment and prevention of the epidemic, including the integration of new information and research into practice.
- NS 6223. Advanced Nutrition** Provides an in-depth look at the human body and the importance of nutrients from biochemical and physiological perspectives. Macro- and micro-nutrients and nutrition for health and fitness are additional topics during the semester. Prerequisite, NS 2203 Basic Human Nutrition.

- NS 6233. Nutrition and Cancer** Focuses on the critical role of nutrition in cancer prevention, complications, treatment and recovery. Includes universal characteristics of cancer as well as an in-depth discussion of medical nutrition therapy for three high-risk disease types.
- NS 6243. Metabolic Nutrition** Advanced study of macronutrient and micronutrient metabolism and function in human health, especially factors that affect dietary requirements. Restricted to Nutrition and Dietetics graduate students. Prerequisites, HP 5113, NS 6263, NS 6303, and STAT 6833.
- NS 6253. Nutrition in Critical Illness** Focuses on the challenges of managing patients in the critical care setting, from the physiologic changes associated with metabolic stress to special needs met with nutrition support. Appropriate medical nutrition therapy in specific disease states included. Restricted to Nutrition and Dietetics graduate students.
- NS 6263. Advanced Medical Nutritional Therapy** Emphasizes core concepts of clinical nutrition relevant to the nutrition care process which include pharmacology and nutrition support. Case studies and an evidence-based approach in various diseases are utilized to help students develop and apply clinical nutrition expertise. Restricted to Nutrition and Dietetics graduate students. Prerequisites, NS 6003 and NS 6123.
- NS 6303. Nutrition and Dietetics Research** The process of designing, conducting, interpreting and evaluating nutrition research. Emphasis given to ethical issues and application of research to practice. Restricted to Nutrition and Dietetics graduate students. Prerequisites, NS 6003 and NS 6123.
- NS 6313. Nutritional Epidemiology** Examines methods used in nutritional epidemiological studies and reviews current knowledge related to diet and other nutritional determinants of long-term health and disease. Restricted to Nutrition and Dietetics graduate students. Prerequisites, HP 5113, NS 6263, NS 6303, and STAT 6833.

Occupational Therapy (OTD)

- OTD 5013. OT History, Language and Process** The purpose of this course is for students to learn how the profession developed, the language of the profession, and the process of occupational therapy service delivery. Prerequisite, Admission to the OTD Program.
- OTD 5053 Occupation, Health and Wellness** Course introduces learners to the connection between occupation, health and wellness as well as the diverse occupational needs of people to achieve health and well-being. Prerequisite, Admission to the OTD Program.
- OTD 5061. Introduction to Documentation** Course introduces the skill of professional documentation in Occupational Therapy. Focus will be on occupation-based problem statements and basic SOAP notes. Prerequisite, Admission to the OTD Program.
- OTD 5082. Scholarly Inquiry I** Students to learn how to locate, select, analyze, and evaluate literature in order to make evidence-based decisions. First in a series designed to assist the learner in completing a scholarly report. Prerequisite, Admission to the OTD Program.
- OTD 5103. OT Philosophy and Theory** Examine the philosophy, theoretical models and frames of reference in OT. Emphasis will be on the Occupational Adaptation theory foundational to the curriculum design. Prerequisite, Admission to OTD program.
- OTD 5113. Gross Anatomy and Neuroscience** Course introduces the learner to the most important functional anatomy and neuroscience principles important to the practice of Occupational Therapy. Prerequisite, admission to the OTD Program.
- OTD 5163. Clinical Reasoning and Skills I** First in a series of courses focused on the development of clinical reasoning skills that are fundamental to best practice. Introduces students to activity analysis, therapeutic use of self, therapeutic use of media, grading and adapting, and environmental modification. Prerequisite, Admission to the OTD Program.

- OTD 5273 Clinical Reasoning and Skills II** Second in a series of courses focused on the development of practical skills fundamental to best practice. Topics focus on developing competency to assess performance skills and client factors for evaluations and interventions. Prerequisite, Admission to the OTD Program.
- OTD 6074. Neurorehabilitation Practice** Students learn the skills to evaluate and provide intervention for clients with neurological disorders. Prerequisite: Admission to the OTD Program.
- OTD 6112. Orthopedic Practice** Course introduces learners to assessment and intervention of adult orthopedic conditions with emphasis on upper extremity management, splinting and modalities. Prerequisite, Admission to the OTD Program.
- OTD 6113 Psychosocial Practice** Course introduces learners to psychosocial clinical theories, models and frames of reference. Establishes learners' practical skills including development and implementation of therapeutic groups, behavioral change strategies, clinical assessment and clinical intervention for the psychosocial population. Prerequisite, Admission to the OTD Program.
- OTD 6123. Clinical Reasoning and Skills III** Course builds upon Clinical Reasoning Skills II through emphasis on environmental modifications and technology devices to support clients in achieving their optimal occupational performance. Prerequisite, Admission to the OTD Program.
- OTD 6152. Fieldwork I: Psychosocial** Level I fieldwork allows students to integrate and apply knowledge from coursework. Clinical half focuses on experiences in a psychosocial setting. Seminar focuses on debrief and documentation in a psychosocial setting. Prerequisite, Admission to the OTD Program.
- OTD 6162 Scholarly Inquiry II** Second in the scholarly inquiry series. Course focuses on teaching students how to understand and interpret quantitative methods and statistics. Students begin scholarly report. Prerequisite: Admission to OTD program. Prerequisite, Admission to the OTD Program.
- OTD 6154. Older Adult Practice** Course focuses on the process of aging and how to assess and intervene to improve older adult occupational performance and participation. Prerequisite, Admission to OTD program.
- OTD 6172. Fieldwork I: Older Adults** Level I fieldwork allows students to integrate and apply knowledge from coursework. The clinical half of fieldwork focuses intervention with older adults. The fieldwork seminar focuses on debrief and documentation of clinical intervention. Prerequisite: Admission to the OTD Program.
- OTD 6174. Pediatric and Adolescent Practice** Course introduces learners to the developmental life stages experienced during from birth to eighteen years of age. Students will develop skills in clinical evaluation, treatment planning and measurement interpretation for pediatric and adolescent clients. Prerequisite, Admission to the OTD Program.
- OTD 6202. Fieldwork I: Pediatrics** Clinical fieldwork experience will introduce students to occupational therapy services for children and adolescents. Seminar focus on documentation for pediatric population. Prerequisite, Admission to the OTD Program..
- OTD 625V. Level II Fieldwork** Level 2 fieldwork allows students to practice skills in various health care environments. Students are responsible for all aspects of OT service delivery. Prerequisite, Admission to the OTD Program.
- OTD 6262 Fieldwork I: Neurorehabilitation** Fieldwork will focus on neurological disorders or conditions. Experiences are integral to the curricular design and support didactic and lab courses. Seminar focuses on documentation for neurorehabilitation population. Prerequisite, Admission to OTD program.
- OTD 6273. Clinical Reasoning and Skills IV** Course advances students' skills in procedural, interactive, conditional and narrative clinical reasoning in order to provide client-centered, occupation-based interventions. Prerequisite, Admission to OTD program.
- OTD 6302. Intra and Inter-professional Practice** Course teaches students about professional expectations between OT colleagues and when working on a multi-disciplinary team. Students will learn how to apply the core competencies of interprofessional practice. Prerequisite, Admission to OTD program.

- OTD 6332. Scholarly Inquiry III** Course is the third in a series designed to assist the learner in completing a scholarly report. Provides students with entry-level scholarship skills to understand and analyze descriptive and qualitative research. Prerequisite, Admission to the OTD Program.
- OTD 7103. Culturally Competent Practice** The purpose of the course is to provide students an opportunity to develop culturally competent skills for occupational therapy practice. Prerequisite, Admission to OTD program.
- OTD 7122. Scholarly Inquiry IV** Provides the opportunity for students to apply scholarship skills to finalize literature review and write the methods and results sections of a scholarly report. Prerequisite, Admission to OTD program.
- OTD 7123. Population Health Practice** Course designed around the core of occupational therapy, "occupation-based practice" with an emphasis on a public health framework with population-based interventions. Prerequisite: Admission to OTD program.
- OTD 720V. Level II Fieldwork** Level 2 fieldwork allows students to practice skills in various health care environments. Students are responsible for all aspects of occupational therapy service delivery. Prerequisite, Admission to the OTD Program.
- OTD 7212. Health Care and Social Systems** Comprehensive perspective for a practicing OT provided through an overview of the US healthcare system with emphasis on current policies, socioeconomic, and demographic factors and the delivery of occupational therapy services. Prerequisite, Admission to OTD program.
- OTD 7232. Advocacy and Leadership** Course provides a summary review of the most recent literature and trends in areas of advocacy, leadership and management. This course will assist in preparation for these roles in the professional environment. Prerequisite, Admission to the OTD Program.
- OTD 726V. Level III Fieldwork: Doctoral Rotation** In-depth field experience in one or more of the following student selected areas including but not limited to clinical practice, research, theory, leadership, program development, policy development, advocacy and education. Prerequisite, Admission to the OTD Program.
- OTD 7271. Capstone Preparation I** Provides an overview of the Doctoral Capstone experiences. This course assists the learner with developing individual capstone experience objectives. Prerequisite, admission to the OTD program.
- OTD 7281. Capstone Preparation II** Course assists learner in identifying a mentor and placement to implement final capstone project in the areas of, but not limited to, research, theory, leadership, program development, policy development, advocacy and or education. Prerequisite, Admission to the OTD program.
- OTD 730V. Special Topics** Provides analysis and application of current topics related to the profession of Occupational Therapy and/or the global healthcare system. Prerequisite, Admission to the OTD Program.
- OTD 7333. OT Business Principles** The purpose of this course is to introduce business principles including but not limited to business plan development, marketing, personnel management and quality improvement. Prerequisite, Admission to the OTD Program.
- OTD 7342. Program Development and Assessment** Course designed to teach students how to develop a community-based program, complete a grant proposal, and understand the elements of strategic planning in preparation for the capstone experience. Prerequisite, Admission to the OTD Program.
- OTD 7343. OT Instructional Design** The purpose of this course is to prepare learners for work in an academic setting. Prerequisite, Admission to the OTD Program.

Physical Therapy (PT)

- PT 7116. Gross Anatomy** Study of the structure and function of the human limbs, spine, head and neck; regional description with emphasis on the muscular, skeletal, nervous, and vascular systems of the limbs and spine. Restricted to Doctor of Physical Therapy majors.
- PT 7123. Introduction to Research and Evidence Based Practice** Provide learners with the prerequisite integrated knowledge and skills required to assimilate, prepare, and present research necessary for evidence based practice. Restricted to Doctor of Physical Therapy majors.
- PT 713V. Independent Study** Students will complete an independent study plan directed by faculty. Topics addressed through independent study will vary. May be repeated. Restricted to Doctor of Physical Therapy majors.
- PT 7141. Research I** The first of three mentored research courses designed to culminate in a project suitable for presentation or publication. Students will work with an assigned faculty advisor and develop projects related to the faculty advisor's area of knowledge and interest. Restricted to Doctor of Physical Therapy majors.
- PT 7211. Therapeutic Exercise I: Introduction** Principles of therapeutic exercise to promote strength, flexibility and function in musculoskeletal conditions. Concepts applied to rehab for impairments, pain, and movement disorders as well as for health and wellness. Restricted to Doctor of Physical Therapy majors.
- PT 7213. Movement Science** Anatomical and biomechanical analysis of normal and abnormal human motion, including posture and gait, and their implications for physical therapy. Restricted to Doctor of Physical Therapy majors.
- PT 7224. Neuroscience** Analysis of the structure and function of the human nervous system for physical therapy majors. Restricted to Doctor of Physical Therapy majors.
- PT 7231. Imaging for Physical Therapist** Introduction to indications, uses, limitations and advantages of radiological imaging techniques. Restricted to Doctor of Physical Therapy majors.
- PT 7251. Pharmacology for the Physical Therapist** Introduction to pharmacology and the effects of drug actions on the major body systems, including the mechanisms of therapeutic and adverse effects and problems of drug interactions. Prerequisite, Restricted to Doctor of Physical Therapy majors.
- PT 7252. Psychosocial Issues in Physical Therapy** Physical therapists' role in management of psychosocial issues affecting patient care including loss and grieving, self concept, socio-cultural considerations, stress and coping, motivational issues and terminal illness. Restricted to Doctor of Physical Therapy majors.
- PT 7311. Therapeutic Exercise: Reinforcement** Principles of therapeutic exercise to promote strength, flexibility and function in musculoskeletal, cardiopulmonary, and neurological conditions. Concepts applied to rehab for impairments, pain, and movement disorders as well as for health and wellness. Restricted to Doctor of Physical Therapy majors.
- PT 7313. Exercise Physiology** Provides learners with an integrated knowledge and application of physiological principles related to the provision of patient care in physical therapy. Topics include musculoskeletal, neurological, renal, and cardiopulmonary systems. Restricted to Doctor of Physical Therapy majors.
- PT 7343. Administration** This course addresses principles of health care administration, with an emphasis on the US healthcare system including acute, skilled nursing, home health, outpatient, and hospice care; legal and ethical issues, business basics, risk management and accreditation. Restricted to Doctor of Physical Therapy majors.
- PT 7413. Pathophysiology and Differential Diagnosis** This course examines the influence of disease on different body systems. Content examines the effects of pathological and age-related changes on health and human movement. The course includes differential diagnosis and basic pharmacological principles for a variety of pathologies. Restricted to Doctor of Physical Therapy majors.

- PT 7444. Cardiopulmonary** Addresses the physical therapy of management cardiopulmonary dysfunction, with emphasis on pathologies, impairments, functional limitations, and disabilities associated with the dysfunctions, and the development of a systematic approach to examination, evaluation, diagnosis, prognosis, and intervention. Restricted to Doctor of Physical Therapy majors.
- PT 7511. Professional Issues I: Introduction to DPT Practice** Introduces the Guide to Physical Therapist Practice and the physical therapist examination process, clinical documentation, professional behaviors, leadership roles and legal regulations of the profession. Restricted to Doctor of Physical Therapy majors.
- PT 7521. Fundamentals of Patient Care** Introduction to fundamentals of physical therapy patient care including infection control, vital signs, passive range of motion, patient positioning, transfer training, wheelchair management, gait training, and documentation. Restricted to Doctor of Physical Therapy majors.
- PT 7534. Clinical Procedures: Introductory Tests, Measures and Interventions** Tests and measures of range of motion, muscle performance, posture, gait & balance are introduced. The clinical intervention procedure introduced is therapeutic exercise covering basic principles and techniques of flexibility exercises; strength and power exercises; and aerobic exercises. Restricted to Doctor of Physical Therapy majors.
- PT 7724. Integumentary and Physical Agents** Introduction to the theory and application of thermal modalities and electrotherapy in clinical practice. Includes assessment and treatment of conditions related to the integument that would be amenable to physical agents as part of the treatment plan. Restricted to Doctor of Physical Therapy majors.
- PT 7733. Clinical Education I** One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.
- PT 7753. Clinical Exercise Physiology** Focus on exercise testing and prescription in healthy populations and individuals with chronic disease. Students will be introduced to concepts of wellness as a foundation for treating chronic health conditions. Restricted to Doctor of Physical Therapy majors.
- PT 7832. Healthy Ager Interprofessional Education** An interprofessional, service learning approach to enhance student learning in the area of geriatrics. Restricted to Doctor of Physical Therapy majors.
- PT 8143. Neuromuscular I** Theoretical foundations of neuromuscular rehabilitation including normal and abnormal movement, neuroplasticity, motor control, and motor learning. Basic treatment principles are introduced. Restricted to Doctor of Physical Therapy majors.
- PT 8151. Research II** The second of three mentored research courses designed to culminate in a project suitable for presentation or publication. Students will continue developing projects related to the faculty advisor's area of knowledge and interest. Restricted to Doctor of Physical Therapy majors.
- PT 8163. Clinical Education II** One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.
- PT 8191. Culminating Experience** This is a culminating experience designed to meet the individual needs of the student. The course work is designed on an individual basis to prepare students for the physical therapist national licensure examination. Restricted to Doctor of Physical Therapy majors.
- PT 8211. Therapeutic Exercise: Mastery** Principles of therapeutic exercise to promote strength, flexibility and function in musculoskeletal, cardiopulmonary, and neurological conditions. Concepts applied to rehab for impairments, pain, and movement disorders as well as for health and wellness. Restricted to Doctor of Physical Therapy Majors.

- PT 8245. Musculoskeletal I** Management of musculoskeletal cases of the upper and lower extremities incorporating anatomy, biomechanics, pathology, clinical diagnosis, and intervention. Emphasis is on clinical decision making in all patient-therapist interaction. Education, prevention, ergonomics, pain management, and conditioning also covered. Restricted to Doctor of Physical Therapy majors.
- PT 8255. Musculoskeletal II** Management of musculoskeletal cases of the spine and TMJ incorporating anatomy, biomechanics, pathology, clinical diagnosis, and intervention. Emphasis is on clinical decision making in all patient-therapist interaction. Education, prevention, ergonomics, pain management, and conditioning also covered. Restricted to Doctor of Physical Therapy majors.
- PT 8263. Clinical Education III** One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.
- PT 8272. Professional Issues II** Exploration of the roles of physical therapist in clinical practice and ethical and legal dilemmas faced by physical therapists; design of a professional development plan. Restricted to Doctor of Physical Therapy majors.
- PT 8571. Research III** The final research course designed to culminate in a project suitable for presentation or publication. Restricted to Doctor of Physical Therapy majors.
- PT 8573. Special Topics in Physical Therapy** This course provides the opportunity for students to gain knowledge and skills in advanced and specialty areas of physical therapy practice. Restricted to Doctor of Physical Therapy majors.
- PT 8585. Clinical Education IV** One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.
- PT 8653. Neuromuscular II** Examination, assessment and treatment planning for pediatric population with a broad spectrum of neurological conditions, including cerebral palsy, genetic disorder, etc. Restricted to Doctor of Physical Therapy majors.
- PT 8674. Musculoskeletal III** The terminal course in Musculoskeletal sequence. Intended to offer the student an opportunity to engage in an intensive and comprehensive immersion into the management of the patient with musculoskeletal dysfunction leading to effective clinical practice. Restricted to Doctor of Physical Therapy majors.
- PT 8685. Clinical Education V** One of a series of supervised clinical education courses, which provides students an opportunity to integrate previously learned academic coursework into actual clinical practice, culminating with entry level performance at conclusion of all clinical education courses. Restricted to Doctor of Physical Therapy majors.
- PT 8754. Neuromuscular III** Management of neuromuscular conditions associated with upper motor neuron pathology. Focus will include physical therapy examination, evaluation, diagnosis, prognosis and treatment planning/strategies. Restricted to Doctor of Physical Therapy majors.
- PT 8773. Neuromuscular IV** Management of neuromuscular conditions associated with lower motor neuron pathology. Focus will include physical therapy examination, evaluation, diagnosis, prognosis and treatment planning/strategies. Restricted to Doctor of Physical Therapy majors.
- PT 8872. Clinical Decision Making** Models for clinical reasoning and decision making; factors influencing clinical decisions; management of complex patient problems. Restricted to Doctor of Physical Therapy majors.

Social Work (SW)

- SW 5003. Human Behavior and the Social Environment I** This course provides the student with a broad understanding of how individuals develop from birth to older age from psychological, psychiatric, Sociological, Social psychological, and human diversity perspectives. Prerequisite, Graduate Social Work Student.
- SW 5023. Foundations of Practice I** This course will introduce the student to social work practice with individuals. Social, psychological, economic, and biological stressors are considered as they impact on the individual. The development approaches are the major orientations presented, augmented by various intervention modalities. Prerequisite, Graduate Social Work Student.
- SW 5043. Foundations of Practice II** Focus of this course is on the theory and practice of social group work in clinical settings. Consideration is given to such issues as group dynamics, leadership, composition, direct and indirect intervention, the use of group activities under various conditions and different settings. Prerequisite, Graduate Social Work Student.
- SW 5053. Social Welfare Policy/Services** The purpose of this course is to establish the subject area of social welfare policy as a central concern of social work. The goals of the course are to help students identify socio-cultural and economic bases of social welfare in America. Prerequisite, Graduate Social Work Student.
- SW 5063. Social Justice and Diversity** This course focuses on issues of diversity, oppression and social justice. It is designed to prepare social work students to be knowledgeable of people's biases. Prerequisite, Graduate Social Work Student.
- SW 5203. Social Dynamics of Family Violence** Explores the social dynamics of family violence including historical perspectives, theories, research, clinical interventions, and effects of abuse across the lifespan as well as the impact of cultural, religious factors, and response from the criminal justice and social welfare systems.
- SW 5213. Crisis Intervention** Examines the history, basic theories, various types of crises, the process of crisis and associated events and issues. Students should leave with basic knowledge of interviewing, assessment, and counseling skills to work with individuals and families in the crisis process. Prerequisite, Graduate Social Work Student.
- SW 5233. International Social Work** The course examines the effects of globalization on human needs. Special attention is given to linkages between human rights, social justice, and social work. The course explores specific problems such as HIV, street children and domestic violence in developing countries as well as strengths and resiliency demonstrated by these countries. Prerequisite, Graduate Social Work Student.
- SW 5273. Seminar in Addiction Studies** This seminar is for post-graduate mental health professionals completing the Addictions Certificate Program. Participants integrate and synthesize didactic and experiential learning in order to work effectively with addictive disorders. Employment hours completed during the seminar may be used to meet state requirements for certification. This course is restricted to post-graduate mental health clinicians completing the Addictions Certificate Program.
- SW 5293. Seminar in Addiction Studies II** This seminar is for post-graduate mental health professionals completing the Addictions Certificate Program. Participants integrate and synthesize didactic and experiential learning in order to work effectively with addictive disorders. Employment hours completed during the seminar may be used to meet state requirements for certification. This course is restricted to post-graduate mental health clinicians completing the Addictions Certificate Program.
- SW 5323. Substance Abuse and Dependence Interventions** The course is designed to assist students to deepen and extend their assessment and intervention skills in Substance Abuse and Dependence Interventions.
- SW 5333. Human Behavior and the Social Environment II** This course examines individual growth from a macro perspective. Examined is how families, groups, organizations, and communities impact individual develop from birth to older age from psychological, psychiatric, sociological, Social psychological and human diversity perspectives. Prerequisite, Graduate Social Work Student.

- SW 5603. Cognitive Behavioral Therapy** Cognitive Behavioral Therapy Course provides knowledge and application of cognitive therapy, cognitive restructuring and awareness of this model. It gives students the competent ability to effectively use CBT techniques.
- SW 5803. Full-Time Foundation Field I** This first full-time foundation field placement focuses on the development of rural-based generalist practice knowledge and skills. Placements in the foundation curriculum are designed to provide students with opportunities to integrate and enhance social work values, ethics, and develop generalist practice skills. Prerequisite, Graduate Social Work Student.
- SW 5813. Full-Time Foundation Field II** This second full-time foundation field placement continues to focuses on the development of rural-based generalist practice knowledge and skills. Placements in the foundation curriculum are designed to provide students with opportunities to integrate and enhance social work values, ethics, and develop generalist practice skills. Prerequisite, Graduate Social Work Student.
- SW 6003. Psychosocial Pathology for Social Work Practice** This course provides students with knowledge of psychopathology as an aspect of human behavior and cultural labeling. Primary focus is on the interaction between physiological, development, emotional, biological, and social aspects of adult and child psychopathology. Prerequisite, Graduate Social Work Student and Graduate Addictions Studies Certificate Students.
- SW 6013. Social Work Ethics** This course will review the ethical dimensions of the mission of the profession of social work. The purpose of this course is to enable students to become sensitive and responsive to ethical issues and dilemmas at all levels of social work practice. Prerequisite, Graduate Social Work Student.
- SW 6023. Social Work Evaluation & Research** This course focuses on the development of knowledge and skills necessary to evaluate rural-based clinical practice with individuals, families, and small groups. Prerequisite, Graduate Social Work Student.
- SW 6033. Clinical Practice with Individuals** This course is designed to assist students in development of their clinical assessment and intervention skills with individuals. The course presents the theoretical basis of individual focused models of assessment and intervention in rural-based clinical social work practice. Prerequisite, Graduate Social Work Student.
- SW 6053. Clinical Practicum with Groups and Families** This course focuses on the theory and practice of rural-based clinical social work practice with groups. Students will master an understanding of group work theories, interventions and techniques applied to persons with a range of issues. Prerequisite, Graduate Social Work Student.
- SW 6063. Rural Social Work Policy Practice** SW 6063 connects students with contemporary social problems faced by people in rural communities. Emphasis is placed on the application of policy-practice knowledge and advocacy skills to the promotion of economic, political, and social justice within the rural context. Prerequisite, Graduate Social Work Student.
- SW 6073. Integrative Research Project** The purpose of the course is for graduate social work students to critically analyze and demonstrate the ability to integrate knowledge and proficiency within the broad philosophical base of social work practice. Prerequisite, Graduate Social Work Student.
- SW 6083. Trauma Focused Practice** Introduce current bio-ecological evidence based research and practice in the field of social work trauma to enhance assessment and intervention skills in working with persons who have experienced trauma. Prerequisite, Graduate Social Work Student.
- SW 6093. Service and Leadership in Social Work** Theory and ethics of leadership, including navigating organizations as a leader, practicing inter/intra-personal leadership communications, and providing leadership through service on multi-levels. Internal leadership focus, including financial and strategic management, board development and governance relationships.
- SW 6323. Clinical interventions with Substance Abuse & Dependence** This course is designed to provide practitioners with strategies for interventions with persons who abuse or are dependent on mind altering or mood altering substances. Prerequisite, This course is restricted to graduate students who have completed SW 5323.

SW 6343. Clinical Intervention with Children This course is designed to provide advanced clinical practice, knowledge, and skills for intervention with children and youth primarily in the context of the rural environment. The special needs and vulnerabilities of high-risk children and youth are also addressed. Prerequisite, Graduate Social Work Student.

SW 6803. Advanced Field I This first advanced field placement focuses on the development of rural-based clinical practice knowledge and skills. Placements are designed to provide students with opportunities to integrate and enhance social work values, ethics, and to develop clinical practice skills. Prerequisite, Graduate Social Work Student.

SW 6813. Advanced Field II This second advanced field placement focuses on the development of rural-based clinical knowledge and skills. Placements are designed to provide students with opportunities to integrate and enhance social work values, ethics, and to develop clinical practice skills. Prerequisite, Graduate Social Work Student.

College of Sciences and Mathematics

DEPARTMENT OF BIOLOGICAL SCIENCES

For each laboratory course taken, both the lecture and laboratory portions must be passed before credit for graduation is assigned.

Biology (BIO)

BIO 5001. Laboratory Techniques in Electron Microscopy An introduction to the preparation of biological materials for viewing with the transmission-and-scanning electron microscope. Emphasis will be placed on preparative techniques that are commonly used in the laboratory. Lecture one hour per week. Prerequisites, eight hours upper-level biology coursework and instructor permission.

BIO 5003. Laboratory for Laboratory Techniques in Electron Microscopy Six hours per week. To be taken concurrently with BIO 5001. Special course fees may apply.

BIO 5013. Population Genetics This course will investigate the theories describing the genetic structure of populations. There will be an emphasis on problem solving applying statistical tools. Intended for graduate students entering the disciplines of preprofessional, conservation, agriculture, and wildlife and fisheries sciences. Prerequisites, BIO 3013, BIO 3011.

BIO 5033. Bioinformatics and Applications Provides a basic understanding of computational methods used in bioinformatics, including hands on training to access and use biological data sources to analyze nucleotide amino acid sequences and three dimensional atomic structures of proteins, nucleic acids allowing interpretations of biological processes. Lecture three hours per week. Prerequisites, BIO 3013 or instructor permission.

BIO 5043. Biometry An introduction to data analyses and effective data presentation, using spreadsheet software and real biological examples.

BIO 504V. Special Topics in the Biological Sciences Topical or technique driven seminar relating to the biological sciences that will lead to the training of students in a body of work, such as newly developed research technique/approach. Number of credit hours will vary. Prerequisites, instructor permission.

BIO 5053. Applications in Biotechnology Focuses on real world applications of biotechnology presented as case studies and utilizing current literature reviews. Medical, agricultural, environmental and industrial biotechnology and their ethical, legal and social implications covered. Prerequisites, BIO 3013.

BIO 5063. Biosafety and Ethics in Research Biosafety in the workplace, including chemical and radiation safety. Examination of moral and ethical issues in the laboratory and in research, including the concepts of transgenics, intellectual property and writing in research. Lecture three hours per week. Prerequisites, BIO 3013.

BIO 5103. Virology The structure, function, and classification of viruses, and their impact on modern society and the biological world. Lecture three hours per week. Prerequisites, BIOL 2103 or BIO 3013 or BIO 4104 or BIO 4133.

BIO 5104. Microbiology Morphology, physiology, taxonomy, and cultivation of bacteria and other microorganisms with an emphasis on medically relevant bacteria. Two hours of lecture and four hours of lab per week.

- BIO 5113. Immunology** Study of the human immune system. Topics include innate and acquired immunity, complement fixation and disorders of the immune system. Lecture 3 hours per week.
- BIO 5123. Cell Signaling** This course will provide an understanding of key concepts about cellular signaling mechanisms, and major signaling pathways identified to date about the methods used to study these pathways. Three hours per week during spring semester. Prerequisite, Cell biology course(s) or instructor permission.
- BIO 5131. Laboratory for Cell Biology** Two hours per week. To be taken concurrently with BIO 5133. Special course fees may apply.
- BIO 5133. Cell Biology** A study of the organization and activities of cells, with emphasis on the ultrastructure and function of cellular organelles. Lecture three hours per week. Prerequisites, BIO 2013, BIO 2011; CHEM 1023, CHEM 1021.
- BIO 5143. Pharmacology** The study of drugs and their mechanisms of action at the system, cellular, and molecular levels. Prerequisites, BIO 2223 OR BIO 3233, BIOL 4104, and CHEM 4243.
- BIO 5153. Laboratory in BioTechniques I** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, high-throughput sequencing sample preparation for gene expression products. Laboratory 6 hours per week. Special course fees may apply. Dual listed as BIO 4153. Prerequisite, instructor permission. Fall.
- BIO 5163. Laboratory in BioTechniques II** Laboratory techniques in protein expression and functional analysis including recombinant DNA, protein expression systems, protein chemistry, chromatographic methods, and other analytical techniques. Laboratory 6 hours per week. Special course fees may apply. Dual listed as BIO 4163. Prerequisites, BIO 5153 or instructor permission. Spring.
- BIO 5201. Laboratory for Issues in Human Ecology** Two hours per week. To be taken concurrently with BIO 5202. Special course fees may apply.
- BIO 5202. Issues in Human Ecology** A broad ecological approach demonstrating problems of modern society such as environmental deterioration, hunger, and resources depletion. Lecture two hours per week.
- BIO 5213. Human Genetics** Current advances in the understanding of the human genome. Lecture three hours per week. Prerequisite, BIO 3013.
- BIO 5301. Aquatic Entomology** Identification, life histories, ecology of aquatic arthropods, with emphasis on freshwater insects. For students in wildlife management, fisheries management, aquatic biology, and advanced entomology. Lecture one hour per week. Prerequisites, BIO 3301, 3303; BIO 3023 OR BIO 4371 AND 4373.
- BIO 5302. Laboratory for Aquatic Entomology** Four hours per week. To be taken concurrently with BIO 5301. Special course fees may apply.
- BIO 5311. Fishery Biology** A study of identification, ecology, food habits, management, and behavior of fishes. Lecture one hour per week. Prerequisites, BIO 1301,1303.
- BIO 5312. Laboratory for Fishery Biology** Four hours per week. To be taken concurrently with BIO 5311. Special course fees may apply.
- BIO 5322. Biology of Marine Mammals Laboratory** Hands on experience on the classification, anatomy, and behavior of marine mammals. Concurrent enrollment in BIO 5323. Special Course fees may apply. Instructor permission required.
- BIO 5323. Biology of Marine Mammals** This course analyzes the biology of marine mammals based on their adaptations to the aquatic environment from evolutionary, anatomical, physiological, and ecological perspectives. Prerequisites will be at least two of the following courses: BIO 3322, BIO 3013, BIO 3033, and instructor permission.

- BIO 5332. Animal Histology** Microscopic survey of cells and tissues of vertebrate organ systems. This is a pre-existing undergraduate course (BIO 4332). The graduate version will require grad students to investigate selected methods/topics beyond what is expected of undergrads. No prerequisites.
- BIO 5333. Marine Biology** Overview of the diverse discipline of marine biology. Emphasis on life history but will incorporate aspects of chemistry, microbiology, and ecology of marine systems. Also included: marine fisheries, conservation biology, aquaculture, pharmacology, resource management, and public policy.
- BIO 5341. Laboratory for Animal Embryology** Two hours per week. To be taken concurrently with BIO 5343.
- BIO 5342. Laboratory for Animal Histology** Four hours per week. To be taken concurrently with BIO 5332.
- BIO 5343. Animal Embryology** Study of reproduction and development in animals, including reproductive systems, gamete formation, fertilization, early cleavage, formation of germ layers, and development of the organ systems. Lecture three hours per week.
- BIO 5354. Mammalogy** Evolution, phylogenetics, biogeography, structure, ecology, taxonomy, and field techniques of mammals. Special course fees may apply. Lecture three hours and lab three hours per week.
- BIO 5361. Laboratory for Mammalian Neurobiology** Two hours per week. To be taken concurrently with BIO 5363. Special course fees may apply.
- BIO 5362. Applied Aquaculture** Field course in which principles are applied within several aquaculture business settings. Intended for the student interested in wildlife and fisheries biology. Prerequisites, BIO 4311 AND 4312.
- BIO 5363. Mammalian Neurobiology** A detailed study of the mammalian nervous system with particular emphasis on morphological aspects. Lecture three hours per week. Prerequisites, BIO 1301, 1303, 2201, 2203 or permission of professor.
- BIO 5371. Laboratory for Animal Ecology** Two hours per week. To be taken concurrently with BIO 5373. Special course fees may apply.
- BIO 5372. Applied Fisheries** Field course in which principles are applied within several fisheries management settings. Intended for the Wildlife Ecology and Management major. Special course fees may apply. Prerequisite, BIO 4311.
- BIO 5373. Animal Ecology** A study of the distribution, abundance, population dynamics, behavior, and interactions of animals. Lecture three hours per week. Prerequisites, BIO 3023.
- BIO 5384. Parasitology** Evolution, life cycles, pathology, treatment and identification of biomedically important vertebrate parasites. Special course fees may apply. Lecture three hours and lab three hours per week.
- BIO 5453. Herpetology** Examination of the biology amphibians and reptiles, with emphasis on evolutionary history, behavior, physiology, morphology, and ecology. Three hours per week.
- BIO 5401. Laboratory for Ichthyology** Two hours per week. To be taken concurrently with BIO 5402. Special course fees may apply.
- BIO 5402. Ichthyology** The taxonomy, distribution, natural history, and economic importance of fishes, with emphasis on Arkansas species. Lecture two hours per week. Prerequisites, BIO 1301, 1303.
- BIO 5403. Comparative Vertebrate Reproduction** This combined lecture/lab course surveys major events in the vertebrate reproductive cycles and patterns. Prerequisites BIO 3231 and 3233 or 3323, or instructor permission.

- BIO 5411. Laboratory for Herpetology** Three hours per week. To be taken concurrently with BIO 5453. Special course fees may apply.
- BIO 5421. Laboratory for Ornithology** Three hours per week. To be taken concurrently with BIO 5423. Special course fees may apply.
- BIO 5423. Ornithology** A study of the evolution, taxonomy, behavior, ecology, population biology, physiology, and conservation of birds. Lecture three hours per week. Prerequisites, BIO 1301, 1303.
- BIO 5433. Field Experience in Marine Environments** Hands-on experience with living and non-living components of marine environments. Emphasis on marine organisms and habitats but will incorporate human interactions associated with marine environments. Course is comprised of an intensive 10 day (10 hrs per day) field trip to an appropriate marine environment.
- BIO 5441. Comparative Animal Physiology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 5443.
- BIO 5443. Comparative Animal Physiology** Examination of physiological systems and processes across vertebrate and invertebrate groups. Broad topics include energetic relationships, integrating systems, reproduction, internal transport, and maintenance of internal balance. Prerequisites, BIO 1301, BIO 1303, BIO 2013, CHEM 1021, and CHEM 1023
- BIO 5444. Wildlife Population Modeling** Introduction to population models, techniques to estimate demographic parameters (e.g., survival, breeding success). Statistical background recommended. Fall of even years. No pre-requisite although a statistical background such as Biological Data Analysis is recommended.
- BIO 5511. Laboratory for Plant Physiology** Three hours per week. To be taken concurrently with BIO 5513. Special course fees may apply.
- BIO 5513. Plant Physiology** General principles of conduction, cellular reactions, respiration, growth, photosynthesis, movement, hormones, and metabolism in plants. Lecture three hours per week. Prerequisites, BIO 1501, 1503; CHEM 3103, CHEM 3101.
- BIO 5521. Laboratory for Wetlands Plant Ecology** Two hours per week. To be taken concurrently with BIO 5522. Special course fees may apply.
- BIO 5522. Wetlands Plant Ecology** A study of plant responses to environmental factors during germination, growth, reproduction, and dormancy. Lecture two hours per week. Prerequisites, BIO 3123 or permission of professor or chair.
- BIO 5541. Laboratory for Mycology** Two hours per week. To be taken concurrently with BIO 5542. Special course fees may apply.
- BIO 5542. Mycology** Morphology, cytology, genetics, and physiology of fungi. Lecture two hours per week. Prerequisites, BIO 3012, 3022; CHEM 3103, CHEM 3101.
- BIO 5551. Laboratory for Medical Mycology** Two hours per week. To be taken concurrently with BIO 5552. Special course fees may apply.
- BIO 5552. Medical Mycology** A study of cutaneous, systemic, and opportunistic fungal diseases (mycoses) of man and other animals. Lecture two hours per week. Prerequisites, BIO 1501, 1503.
- BIO 5601. Laboratory for Limnology** Two hours per week. To be taken concurrently with BIO 5603. Special course fees may apply.
- BIO 5603. Limnology** Physicochemical conditions of fresh water, and their effects on aquatic life; plankton analysis and bottom fauna studies. Lecture three hours per week. Prerequisites, BIO 1301, 1303; CHEM 1023, CHEM 1021.
- BIO 5611. Radiation in Our World** Introduction to the biological effects and physics of radiation and radioactivity, radiation in our environment and society, and the interactions of radiation with organisms. Prerequisite, instructor permission. Fall, Spring

- BIO 5613. Conservation Biology** A study of global and local biological resources, including the diversity of life, the value of biodiversity, the importance of diversity to humans and human cultures, and interdisciplinary strategies to conserve biological resources. Lecture three hours per week. Prerequisites, BIO 3023 or permission of professor.
- BIO 5623. Environmental Microbiology** A study of the physiology and diversity of microorganisms and their role in cycling of nutrients and mineralization of pollutants in the world. Prerequisites, CHEM 1023 and BIO 2103, or 4014, or 4133.
- BIO 5633. Environmental Toxicology: Mechanisms and Impacts** Understanding the basic principles behind the study of impacts and the mechanisms of physiological disturbances associated with environmental toxicant exposure to natural systems. Prerequisites, BIO 4131, BIO 4133 and CHEM 4232 or permission of professor. Lecture three hours per week.
- BIO 5684. Biological Data Analyses** Use of statistical tests and models (regression, ANOVA, generalized linear models, and mixed-effect models, PCA) to analyze ecological/biological data. Applications using a free statistical program. Prerequisite, Applied Statistics or equivalent.
- BIO 5704. Plant Systematics** A study of the systematics, nomenclature, morphology, and identification terminology for vascular plants with an emphasis on dichotomous key-based identification of flowering plants of Arkansas.
- BIO 5714. Dendrology** A study of the systematics, nomenclature, morphology, phenology, geographic range, and natural history of woody plants with an emphasis on field recognition throughout the year.
- BIO 5813. Curation of Collections** Current, appropriate museum-quality specimen curation for a range of taxa including the collection and preservation of specimens of vascular plants, fungi, mussels, fish, reptiles and amphibians, and mammals. Dual listed as BIO 4813. Prerequisites, BIO 1301, BIO 1303, BIO 1501 and BIO 1503 or with the instructor approval.
- BIO 5823. Natural History Collections Research Design** Evaluation and development of research questions using current, peer-reviewed literature as a basis for discussion supported by natural history specimens and data. Research topics include taxonomy, biogeography, ecology, and global change biology. Activities demonstrate hypothesis testing in biodiversity science. Dual listed as BIO 4823. Prerequisite, BIO 5813 or instructor approval.
- BIO 6001. Biological Seminar** Required of all graduate students.
- BIO 6003. Scientific Methods and Research Design** A focus on the understanding and development of the scientific method as it pertains to research. Required of the graduate life sciences major, including students studying within the Biology, Botany, Wildlife Management and Zoology emphasis.
- BIO 6013. Evolutionary Biology** A summary of current theories concerned with evolution of biological organisms. An elective course particularly directed to the needs of biological science majors including students of Biology, Botany, Zoology, and Wildlife Management.
- BIO 6113. Advanced Cell Biology** Study of recent advances in cell biology through critical analysis of current literature. Focusing on eukaryotic cell structure and function, topics may include, but not be restricted to, cellular structures and organelles; cell cycling; signal transduction; gene regulation; and intracellular trafficking. Prerequisites: A course in cell biology or permission of the professor.
- BIO 6123. Specialized Biochemistry** An advanced study of biochemical pathways leading to specialized biologically active metabolites. Emphasis will be on specialized pathways in plants and their counterparts in animals, and microorganisms.
- BIO 6143. Introduction to Biotechnology & Research Design** Study of molecular biological techniques and experimental designs through oral and written review of scientific literature. Career preparation by construction of curriculum vitae and work portfolios. Prerequisites: Students must be graduate students in a biological field of science.

- BIO 6196. Internship in Biotechnology** Participation in an internship with a private business, research center or public agency in the field of biotechnology. Included is a minimum of 300 work hours. Internship may be a volunteer or paid position. Included is the completion and approval of a synthesis paper covering methods and applications of molecular tools used during this internship. Prerequisite, BIO 6144, BIO 6154.
- BIO 6301. Aquatic Biology** The collection, identification, and study of aquatic invertebrate and vertebrate animals with emphasis on life history, ecology, and importance to man. Lecture one hour per week. Prerequisites, BIO 1503, 1501, 1303, 1301.
- BIO 6302. Laboratory for Aquatic Biology** Four hours per week. To be taken concurrently with BIO 6301. Special course fees may apply.
- BIO 6311. Laboratory for Medical and Veterinary Entomology** Two hours per week. To be taken concurrently with BIO 6313. Special course fees may apply.
- BIO 6313. Medical and Veterinary Entomology** A study of the taxonomy, biology and control of arthropods associated with human and animal diseases. Lecture three hours per week. Corequisite: BIO 6311.
- BIO 6321. Laboratory for Insect Taxonomy** Two hours per week. To be taken concurrently with BIO 6322. Special course fees may apply.
- BIO 6322. Insect Taxonomy** A survey of the orders and families of insects designed to familiarize the student with the use of taxonomic literature and keys. Lecture two hours per week. Prerequisites, BIO 3301 and 3303 or permission of professor.
- BIO 6331. Laboratory for Comparative Ethology** Two hours per week. To be taken concurrently with BIO 6312. Special course fees may apply.
- BIO 6332. Comparative Ethology** Description of the known behavioral adaptations of animals to their environments with emphasis on adaptive significance, including an introduction to objective analysis of behavior patterns. Lecture two hours per week. Prerequisites, BIO 1301, 1303.
- BIO 6342. Natural History of the Vertebrates** The study of the classification and natural history of vertebrates. Lecture two hours per week. Prerequisites, BIO 1301, 1303.
- BIO 6343. Cell & Molecular Neurobiology** This course provides an understanding of how the nervous system functions on a molecular and cellular level through lectures and discussions of original scientific papers related to lecture topics. Three hours per week. Prerequisite, Course(s) in basic neurobiology or instructor permission.
- BIO 6352. Laboratory for Natural History of the Vertebrates** Four hours per week. To be taken concurrently with BIO 6342. Special course fees may apply.
- BIO 6371. Practicum I** Practicum in biology requires the completion of a minor project in the biological sciences as approved by the student's advisory committee. To be completed by MA students as part of their core curriculum.
- BIO 6372. Practicum II** Practicum in biology requires the completion of a major project in the biological sciences as approved by the student's advisory committee. To be completed by MA students as part of their core curriculum.
- BIO 6043. The Anatomy of a Grant** Students will prepare a large grant for a federal or non-profit agency. Students will write the grant, compile a budget, and complete documentation required for funding. Students will work with various campus offices and successful grantees to navigate this process.
- BIO 638V. Thesis**
- BIO 6503. Mechanisms of Speciation** A study of genetic, environmental and historical factors which modify all species with emphasis on the effects of mutation, selection, and ploidy upon plant genetic systems. Lecture three hours per week. Prerequisite, BIO 3013.

- BIO 6513. Global Change Biology** Ecological and evolutionary impacts of anthropogenic global changes. Investigation of pollution, climate change, land use change, and species invasions as important factors involved in losses of and changes in distributions of biodiversity. Prerequisite, This course will serve graduate students in biological sciences and environmental sciences. Previous coursework in Ecology is strongly recommended.
- BIO 6601. Laboratory for Environmental Systems Analysis** Laboratory three hours per week. To be taken concurrently with BIO 6603. Special course fees may apply.
- BIO 6603. Environmental Systems Analysis** Environmental problem-solving utilizing systems modeling and applied statistical analysis. Use of the microcomputer as an analytical tool will be emphasized. Prerequisites, one semester of calculus, one semester of statistics, BIO 4633, 5633, or permission of professor. Lecture three hours per week.
- BIO 6621. Laboratory for Case Studies in Ecosystem Management** Field and laboratory experiences in evaluation of ecological, economic and sociological aspects of management of water, soil, and air resources. Course will emphasize data collection, analysis and reporting. Prerequisites, BIO 3023 or 4373, 5633 and 6603 or permission of professor. Laboratory three hours per week. Special course fees may apply.
- BIO 6633. Population Community Ecology** An overview of principles, applications, and modeling of population and community ecology.
- BIO 6623. Case Studies in Ecosystem Management** Evaluation of ecological, economic and sociological aspects of management of water, soil and air resources. Content will vary based on current topics of importance in the field of environmental science. Prerequisites, BIO 3023 or 4373, 5633 and 6603 or permission of professor. Lecture three hours per week.
- BIO 6653. Aquatic Ecotoxicology** A study of the effects of contaminants in water, their accumulation in the biota, and the functional response of populations to specific contaminants. Lecture three hours per week. Prerequisites, BIO 5603, or BIO 6301, or permission of professor.
- BIO 6684. Biological Data Analyses** Use of statistical tests and models (regression, ANOVA, generalized linear models, and mixed-effect models, PCA) to analyze ecological/biological data. Applications using a free statistical program. Prerequisite, Applied Statistics or equivalent.
- BIO 680V. Independent Study**
- BIO 6903. Animal Ecophysiology** An examination of animal physiology in an ecological context. Emphasis will be placed on wild vertebrate populations. Topics may include stress, reproduction, osmoregulation, ecoimmunology, and metabolic processes.
- BIO 7161. Responsible Conduct in Research** A one credit hour course providing training on ethical behavior in sciences.

Environmental Sciences (ESCI)

- ESCI 613V. Independent Research in Environmental Sciences** Independent investigations by a student or students directed by faculty and researchers that culminate in the development of or training in new techniques for the production of published findings. As with other independent study courses, the supervising faculty member, number of credit hours and project description will vary. Prerequisites, Admission to the M.S. program or consent of instructor.
- ESCI 614V. Environmental Sciences Internship** Off-campus directed experience with environmental management and research with agencies, industries, consultants, municipalities, nonprofit groups or applicable institutions and operations. Independent work experiences by students directed by faculty and mentored by sponsors that culminate in elaboration of their focus area through professional exposure and training. As with similar independent study courses, the supervising faculty member, number of credit hours and project description will vary. Prerequisites, Admission to the M.S. program or consent of instructor and sponsor.

- ESCI 6221. Supervised Teaching** Teaching experience under the mentorship of faculty who assist the student in planning for the teaching assignment, observe and provide feedback to the student during the teaching assignment, and evaluate the student upon completion of the assignment.
- ESCI 6303. Global Water Issues** Overview of current and historical water quality and quantity issues shaping human civilization. Emphasizes water issues facing regions of dense population and intensive agriculture. Importance of ground and surface water, ecosystems, sustainability, economic and policy issues of water are investigated.
- ESCI 6323. Population Community Ecology** An overview of principles, applications, and modeling of population and community ecology.
- ESCI 6343. Green Chemistry** Principles of Green Chemistry; Overview of chemistry topics that deal with issues relating to climate change. The science behind the discovery and performance of safer, cleaner, and more efficient chemical processes and products energy systems and the role of biofuels. Prerequisite, a first and second semester chemistry course sequence.
- ESCI 689V. Thesis**
- ESCI 7111. Seminar in Environmental Sciences** Reports on and discussions of current topics in the environmental sciences. Presentations and discussion by faculty and students. May be repeated as topic varies. Prerequisites, Admission to the Ph.D. program or permission of professor. Master and specialist level students may enroll in this course with permission of professor.
- ESCI 7121. Topical Seminar in Environmental Sciences** Reports on and discussions of a single topic or small set of related topics in the environmental sciences. Presentations and discussion by faculty, invited speakers and students. May be repeated as topic varies. Prerequisites, Admission to the Ph.D. program or permission of professor. Master and specialist level students may enroll in this course with permission of professor.
- ESCI 713V. Independent Research in Environmental Sciences** Independent investigations by a student or students directed by faculty and researchers that culminate in the development of or training in new techniques for the production of published findings. As with other independent study courses, the supervising faculty member, number of credit hours and project description will vary. Prerequisites, Admission to the Ph.D. program or consent of instructor.
- ESCI 714V. Environmental Sciences Internship** Off-campus directed experience with environmental management and research with agencies, industries, consultants, municipalities, nonprofit groups or applicable institutions and operations. Independent work experiences by students directed by faculty and mentored by sponsors that culminate in elaboration of their focus area through professional exposure and training. As with similar independent study courses, the supervising faculty member, number of credit hours and project description will vary. Prerequisites, Admission to the Ph.D. program or consent of instructor and sponsor.
- ESCI 7151. Responsible Conduct in Research** Responsible Conduct in Research is a 1 credit hour course offered during the fall semester. This seminar is designed to introduce graduate students and research professionals to the issues associated with responsible conduct in research. It is designed for graduate and postdoctoral trainees, and for faculty. This seminar course is required for all graduate students in the Environmental Sciences program. This seminar is designed to introduce graduate students and research professionals to the issues associated with responsible conduct in research. Frank discussion of these issues and awareness of consequences of irresponsible conduct is critical to the development of a science workforce that has the ethical training and integrity needed to work in today's increasingly complex science and technology fields.
- ESCI 7251. Mentored Teaching** Structured instruction and practice of concepts and strategies of college teaching for doctoral students in the Environmental Sciences. With this preparation and sufficient topical background, students will be prepared to teach ASU 1000 level general education lectures sections in the natural, social, or life sciences. Restricted to Environmental Sciences Ph.D. students.
- ESCI 889V. Dissertation**

Molecular Biosciences (MBS)

- MBS 6001. Fundamentals of Entrepreneurship for Scientists** Entrepreneurship from discovery through protected intellectual property. Information about the fundamental processes required to protect new inventions. Including definitions of intellectual property, necessary record keeping, disclosure options for protecting IP and patent application process.
- MBS 6213. Advanced Cell Biology** Study of recent advances in cell biology through critical analysis of current literature. Focusing on eukaryotic cell structure and function, topics may include, but not be restricted to, cellular structures and organelles; cell cycling; signal transduction; gene regulation; and intracellular trafficking. Prerequisites, A course in cell biology or permission of professor.
- MBS 6233. Specialized Biochemistry** An advanced study of biochemical pathways leading to specialized biologically active metabolites. Emphasis will be on the specialized pathways in plants and their counterparts in animals, and microorganisms. Prerequisites, CHEM 4243 or instructor permission.
- MBS 6243. Molecular Genetics and Genomics** An advanced treatment of genetics in microbial, animal, and plant systems, focused on the biochemical and molecular aspects of genetics structure and function. Information derived from current and recent genomic analyses and genomic comparisons will be included. Prerequisite, CHEM 4243 or instructor permission.
- MBS 6251. Techniques in Molecular Biosciences** Training in major technical and analytical skills required for contemporary molecular biosciences research. Topics, identified by subtitles, will vary by semester. May be repeated up to 12 credit hours with unduplicated subtitles.
- MBS 689V. Masters Thesis** This course is restricted to students admitted to the M.S. in Molecular Biosciences Program.
- MBS 7111. Seminar in Molecular Biosciences** Reports on and discussions of current topics in Molecular Biosciences, and other science topics. Presentations and discussion by faculty and students. May be repeated. Prerequisites, Admission to the MBS Ph.D. program or permission of professor.
- MBS 712V. Topics in Molecular Biosciences** In-Depth study of specific areas related to Molecular Biosciences. Multidisciplinary involving extensive discussion and critical analysis of current literature. May be repeated as topic varies. Prerequisite, two MBS core classes or instructor permission.
- MBS 713V. Independent Research in Molecular Biosciences** Independent investigation of a particular topic or technique, directed by faculty that culminates in the development of or training in new techniques or publishable discoveries. May be repeated as topic varies. Prerequisites, Open to all graduate students with consent of instructor.
- MBS 7151. Responsible Conduct in Research** A one credit hour course providing training on ethical behavior in sciences.
- MBS 7251. Mentored Teaching** Structured instruction and practice of concepts and strategies of college teaching for doctoral students in Molecular Biosciences. With this preparation, and sufficient topical background. Students will be prepared to teach ASU 1000 level general education lecture sections in the natural and life sciences.
- MBS 889V. Dissertation**

DEPARTMENT OF CHEMISTRY AND PHYSICS

Chemistry (CHEM)

- CHEM 5043. Environmental Chemistry** An overview of the chemistry of natural waters, soils, and the atmosphere. Emphasis will be on the chemical and biological agents which affect the quality of the environment. The most commonly used analytical techniques and quality assurance/control procedures will be covered. Prerequisites, CHEM 3103 and CHEM 3101.
- CHEM 5204. Inorganic Chemistry** Includes the recent concepts of bonding and molecular structure as well as some of the less common chemistry of the elements. Lecture three hours, laboratory three hours per week. Prerequisites, CHEM 3121, 3123.
- CHEM 5224. Instrumentation** Applications and operation theories of modern instruments. Laboratory includes use of gas chromatography; infrared, ultraviolet-visible, atomic absorption spectroscopy; and electrochemical techniques. Lecture two hours, laboratory six hours per week. Prerequisites, CHEM 3054, 3121, 3123.
- CHEM 5241. Biochemistry Laboratory** Experiments aimed to acquaint the student with problems and more important methods of biochemical research. Laboratory three hours per week. Corequisite: CHEM 5243.
- CHEM 5243. Biochemistry** Presentation of the important areas of modern biochemistry and a description of methods commonly employed in biochemical research. Lecture three hours per week. Prerequisites, CHEM 3111 and 3113.
- CHEM 5443. Advanced Biochemistry** The second semester continuation of biochemistry. Topics will focus on anabolic metabolism and bioinformation processes vital in biological systems. Current research in biochemistry and medical correlates will also be discussed. Prerequisite, CHEM 4243
- CHEM 6144. Environmental Instrumentation** Principles of operation and applications of modern instrumental techniques used in environmental science. Particular emphasis will be placed on GC, GC/MS, HPLC, AA, UV/VIS, and FTIR. Lecture two hours, laboratory six hours per week. Prerequisite, CHEM 5043.
- CHEM 6233. Specialized Biochemistry** An advanced study of biochemical pathways leading to biologically active metabolites. Emphasis will be on specialized pathways in plants and their counterparts in animals, and microorganisms. Aspects of metabolic engineering, chemical ecology and applications of specialized metabolites in medicine and agriculture will be discussed. Prerequisite, CHEM 5243 or equivalent; course in plant physiology and molecular biology are advantageous.
- CHEM 6273. Research in Chemistry** Directed laboratory study in a specialized aspect of chemistry designed to provide experience in independent investigations. May be taken up to three times (i.e. 9 hours) as the focus of the laboratory research evolves. Prerequisites, Permission of research advisor and Chair of the Department of Chemistry & Physics. The course is restricted to students earning a Master's degree in Chemistry
- CHEM 6343. Special Topics** The special topic that comprises the course is selected on the basis of the needs of the graduate class. Typical topics that might be offered are: Molecular Structure, Electrochemistry, Chemicals of Pollution, Quantum Chemistry, Chemical Applications of Computer Programming, Nuclear Chemistry, and Organometallic Chemistry.
- CHEM 6353. Advanced Analytical Chemistry** A discussion of principles and methods of application of analytical chemistry to problems of analysis and the significance of data. Prerequisite, CHEM 3054.
- CHEM 6393. Advanced Organic Chemistry** Reactions, mechanisms, and structure in organic chemistry. Prerequisites, CHEM 3111 and 3113.

- CHEM 6403. Advanced Inorganic Chemistry** A study of the quantum theory of bonding, molecular structure, compound formation, and coordination chemistry. Prerequisites, CHEM 4204 and 3124.
- CHEM 6433. Advanced Physical Chemistry** A systematic, rigorous investigation of the principles of chemistry via thermodynamics, quantum theory, and chemical dynamics. Molecular and macroscopic models are developed in parallel. Prerequisite, CHEM 3134.
- CHEM 652V. Professional Internship** The requirements and credits for this course may vary widely from one student to another, involving activities ranging from practice teaching to on-the-job training in industry. Consequently, before admission to the course, a written agreement must be worked out between the student, the student's graduate committee, and any other agency involved.
- CHEM 6581. Graduate Seminar** Reports on current topics in chemistry. Presentations and discussion by faculty and students.
- CHEM 680V. Independent Study**
- CHEM 689V. Thesis**

Physics (PHYS)

- PHYS 5403. Nuclear and Particle Physics** Radioactivity and nuclear structure including nuclear disintegration and fission. Lecture three hours per week. Prerequisite, PHYS 3303.
- PHYS 5463. Advanced Mechanics** The Lagrangian and Hamiltonian formulations, rigid body mechanics and special relativity. Prerequisite, PHYS 3153.
- PHYS 5513. Advanced Electromagnetic Theory** The study of Maxwell's equations as applied to waveguides, radiation, and wave propagation in various media. Lecture three hours per week. Prerequisite, PHYS 3203.
- PHYS 5533. Solid State Physics** An introductory study of the structure and physical properties of crystalline solids, including X-ray diffraction, specific heats, free electron theory, and band approximation. Lecture three hours per week. Prerequisite, 20 hours of physics.
- PHYS 5553. Principles of Quantum Mechanics** Solutions of the Schrodinger wave equation, including the harmonic oscillator, the hydrogen atom, and perturbation theory. Lecture three hours per week. Prerequisite, 20 hours of physics.
- PHYS 680V. Independent Study** Prerequisite, Consent of Physics Faculty.

DEPARTMENT OF MATHEMATICS AND STATISTICS

Mathematics (MATH)

- MATH 5123. Special Topics in Math and Science Education** Content-specific topics as they are related to mathematics and Science education. Does NOT apply to credit toward coursework required for the MS or MSE in Mathematics.
- MATH 5413. Partial Differential Equations** A study of the method of separation of variables to solve some standard partial differential equations; Fourier series; boundary value problems; Sturm-Liouville theory; and the method of characteristics. Prerequisite, MATH 4403
- MATH 5423. Modern Algebra II** A continuation of MATH 3303. Prerequisite, MATH 3303.

- MATH 5513. Applied Mathematics** A study of topics from ordinary and partial differential equations, vector analysis, and functions of a complex variable, with physical applications. Prerequisite, MATH 3254.
- MATH 5533. Numerical Methods** Algebraic, transcendental, ordinary and partial differential equations, finite differences, and integral equations. Numerical integration, error analysis, and/or other topics of numerical analysis utilizing high speed computer techniques. Prerequisites, MATH 2214 and a high level programming language.
- MATH 5553. Advanced Calculus I** The calculus of one and of several variables. Limits, continuity, sequences, differentiation, partial differentiation, integration, and infinite series. Prerequisite, MATH 3254.
- MATH 5563. Advanced Calculus II** A continuation of MATH 5553. Prerequisite, MATH 4553.
- MATH 5913. Advanced Geometry** Provides instruction to current teachers to increase mathematics content knowledge through the use of technology and cutting-edge pedagogical methods in geometry instruction. This course may not be used to satisfy a mathematics requirement for the MS or the MSE degree.
- MATH 6603. Abstract Algebra I** A study of finite groups, cyclic groups, groups with operators, right and left modules, lattices and other related topics. Prerequisite, MATH 3303.
- MATH 6613. Abstract Algebra II** A continuation of MATH 6603.
- MATH 6623. Differential Geometry** An introduction to manifolds, connections, differentiable structures and related topics. Prerequisite, MATH 6753.
- MATH 6643. Advanced Linear Algebra** Topics to be selected from the broad range of subjects usually called linear algebra or linear mathematics, including representation theory, infinite-dimensional vector spaces, normed linear spaces, complex vector spaces, tensor products and algebras, and forms. Prerequisites, MATH 3243, 3303.
- MATH 6653. Theory of Numbers** Divisibility of integers, distribution of primes, congruences, quadratic residues, and continued fractions. Prerequisite, MATH 3303.
- MATH 669V. Seminar** Topics of interest to graduate mathematics students.
- MATH 6753. Point Set Topology** Theory of point set and abstract spaces. The real line, metric spaces, and general topological spaces. Prerequisite, MATH 4553.
- MATH 6793. Calculus of Variations** Necessary and sufficient conditions for extrema of single integral problems in the plane and three-space. Some generalizations to higher dimensions with applications. Prerequisite, MATH 4553.
- MATH 6813. Advanced Ordinary Differential Equations** Stresses the study of existence of solutions, autonomous systems and their phase space and the Lyapunov stability of solutions of differential equations. Prerequisite, MATH 4553.
- MATH 6823. Functions of a Real Variable I** Properties of sets, sequences of functions, measure theory and other related topics. Prerequisite, MATH 4553.
- MATH 6833. Functions of a Real Variable II** A continuation of MATH 6823.
- MATH 6853. Functions of a Complex Variable I** Elementary properties of a complex variable. Limits, continuity, differentiation, integration, and transformations. Prerequisite, MATH 4553.
- MATH 6863. Functions of a Complex Variable II** A continuation of MATH 6853.
- MATH 6873. Numerical Analysis I** Included are such topics as approximation, interpolation, numerical differentiation and integration, and smoothing of data. Prerequisite, MATH 4403 and a programming language such as C++ or FORTRAN, or permission of professor.

- MATH 6883. Numerical Analysis II** Included are such topics as Gaussian Elimination, least squares methods, eigenvalues and eigenvectors, the QR algorithm, and interactive methods. Prerequisite, MATH 6873 or instructor permission.
- MATH 680V. Independent Study**
- MATH 689V. Thesis**

Statistics (STAT)

- STAT 5463. Probability and Statistics II** Point and interval estimation, testing hypotheses, standard statistical tests, correlation and regression, and non-parametric methods. Prerequisite, STAT 5453.
- STAT 5483. Statistical Methods Using R** An introduction to the basics of the statistical software package R and how to use it to run hypothesis tests involving means, variances, and proportions, linear regression, ANOVA, and nonparametric statistics. Prerequisite, STAT 4463/5463 or STAT 4473.
- STAT 6433. Time Series Analysis** Topics include stochastic processes, stationarity, autocovariance and autocorrelation, filtering and smoothing, ARMA processes, and spectral analysis. Prerequisites, STAT 4453 and MATH 3243, or equivalent.
- STAT 6613. Nonparametric Statistics** Topics include hypothesis testing using data from unknown distributions, tests of independence, tests of goodness-of-fit, rank correlation, and simple linear regression. Prerequisite, STAT 3233 or equivalent.
- STAT 6623. Statistical Methods with SAS Programming** Point estimation, interval estimation, and tests of significance for comparing two population means and proportions. Power analysis and choosing sample size. Nonparametric methods and Chi-square tests. Linear regression, analysis of variance and multiple comparison procedures. Other topics as time permits. Prerequisite, STAT 3233 or equivalent.
- STAT 6643. Multivariate Analysis** Topics include the bivariate normal distribution, multiple and partial correlation, canonical correlation, discriminate analysis, multivariate analysis of variance (MANOVA), and factor analysis. Prerequisite, STAT 3233, MATH 3243, or equivalent.
- STAT 6653. Data Analysis I: Regression Analysis** Simple and multiple linear regression, related estimation and hypothesis testing, model selection, examination of residuals, multicollinearity diagnostics, outliers and influence, qualitative predictor variables, logistic regression. Prerequisite, STAT 3233 or equivalent.
- STAT 6663. Data Analysis II: Analysis of Variance (ANOVA)** Single-factor, two-factor, and multifactor analysis of variance (ANOVA), related estimation and hypothesis testing, multiple comparison procedures, random effects models, analysis of covariance, ANOVA in some standard experimental designs. Prerequisite, STAT 6653 or instructor permission.
- STAT 6673. Design of Experiments** Replication, randomization, and blocking, analysis of variance, full and factorial experiments at two and three levels, effect aliasing, design resolution and minimum aberration criteria, nonregular designs and complex aliasing, introduction to response surface methodology. Prerequisite, STAT 3233 or equivalent.
- STAT 6703. Statistical Analysis I** Applications of elementary statistics. Advanced principles including statistical study, data gathering, variance and covariance. Prerequisite : STAT 4453 or equivalent.
- STAT 6713. Statistical Analysis II** A continuation of STAT 6703.
- STAT 6723. Probability** Abstract probability spaces, random variables, conditional probability, independence, types of convergence, sums of independent random variable, stochastic processes. Prerequisite, MATH 4553.

STAT 6833. Biostatistics Applications of advanced statistical techniques to the Life and Health Sciences. Topics include estimation and hypothesis testing, single and multiway analysis of variance (ANOVA), linear regression, correlation and frequency analysis. Prerequisite, an introductory level statistics course.

International Programs

Intensive English (IEP)

IEP 5001. International Bridge Program The Graduate International Bridge Program is a course that helps students develop effective academic study skills at the graduate level, such as critical analysis of journal articles, conducting research, citing sources in papers, etc. as well as other skills such as listening and note taking and life skills necessary for adjusting to the academic community. Additionally, this course will provide English language tutoring assistance to students for any of the other classes in which they are enrolled.

The Graduate Faculty

ABERNATHY, CLAIRE, 2010 Associate Professor of Theatre—Costume & Makeup
B.A., Samford University
M.F.A., The University of North Carolina-Greensboro

ADDAE, REJOICE, 2012 Associate Professor of Social Work
B.S.W., University of Arkansas at Pine Bluff
M.S.W., University of Arkansas at Little Rock
Ph.D., Jackson State University

AHN, JEONGHO, 2009 Assistant Professor of Mathematics
B.S., Kyung Hee University, Korea
M.S., Kyung Hee University, Korea
Ph.D., University of Iowa

AKBARI, CHRISTINA C., 2015 Assistant Professor of Speech-Language Pathology
B.A., Lamar University
M.A., University of Houston
Ph.D., Texas Tech University Health Sciences Center

ALAM, MOHAMMAD ABRAR, 2015 Assistant Professor of Chemistry
B.Sc., Aligarh Muslim University, Aligarh, India
M.Sc., Aligarh Muslim University, Aligarh, India
Ph.D., Indian Institute of Technology, Kanpur, India

ALDRIDGE, ROY, 2000 Professor of Physical Therapy
B.S., University of Tennessee—Memphis
M.S., University of Tennessee—Memphis
Ed.D., Arkansas State University

ALI, HASHIM, 2009 Assistant Professor of Chemistry
B.S., United Arab Emirates University
Ph.D., University of Iowa

AL TOM, KACIE, 2015 Instructor in Nursing
B.S., Arkansas State University
M.S.N., Arkansas State University

ANDERSON, BRENDA, 2007 Associate Professor of Nursing
B.S.N., Arkansas State University
M.S.N., Arkansas State University

ANDERSON, SCOTT, 2016 Assistant Professor in Communication
B.S., Oregon State University
M.A., Oregon State University
Ph.D., University of Memphis

ARNELL, NICOLE, 2010 Associate Professor of Graphic Design
B.A., Indiana University
M.F.A., Colorado State University

ARYAL, KHEM, 2017 Assistant Professor of English & Philosophy
B.A., Tribhuvan University, Kathmandu
M.A., Tribhuvan University, Kathmandu
Ph.D., University of Missouri

AUL, KAREN, 2015 Assistant Professor of Nursing
A.S., Butler County Community College
B.S., Slippery Rock University
M.S., Robert Morris University
Ph.D., Robert Morris University

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Auxiliary Services
Budget Planning and Development
Controller's Office
Controller's Office
Delta Center for Economic Development
Dining Services
First National Bank Arena
Facilities Management
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Academic Affairs
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Administrative Services
Assessment Services
Delta Heritage Initiatives
Fowler Center
Institutional Effectiveness
Honors College
Museum
Testing

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Office of Diversity
Office of Diversity
BECK Pride Center for Americas Wounded Veterans
Access & Accommodation Services
Multicultural Center

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Lillie Fears, A-State A.D.V.A.N.C.E Faculty Liaison
Lynda Nash, Director
Dominique White, Director
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Financial Aid and Scholarships
Admissions
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Dean of Students
Residence Life
Student Health & Wellness
Student Union Leadership Center
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